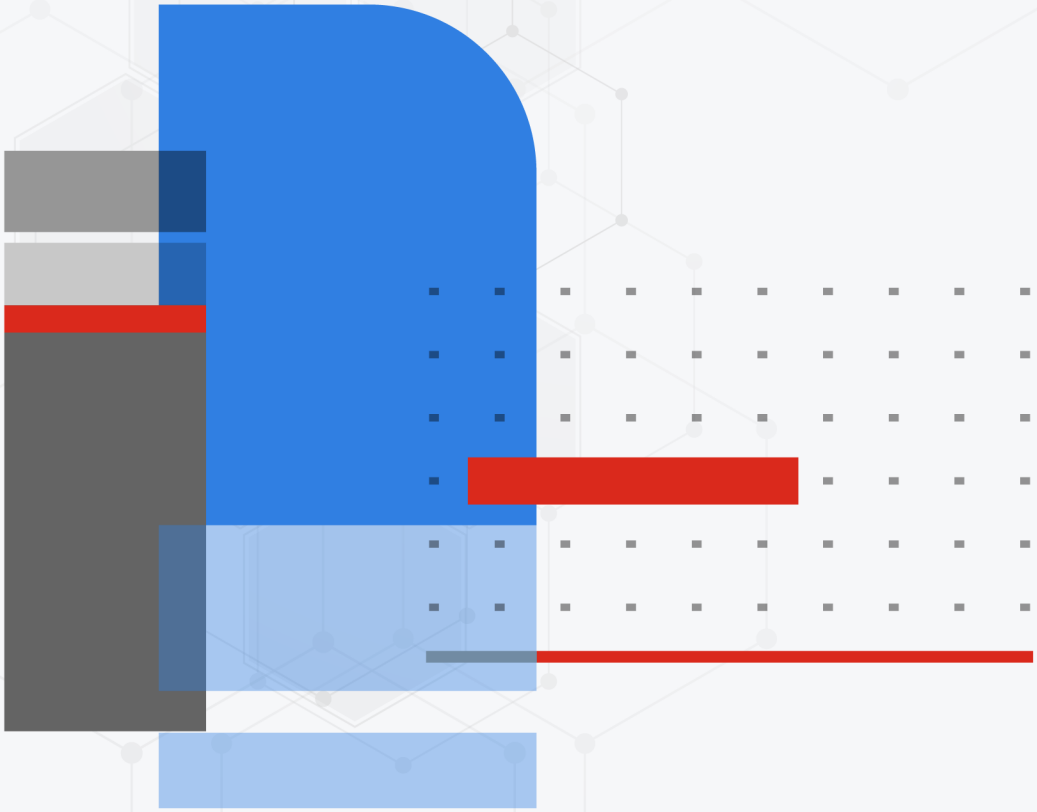
CLI Reference

FortiManager 7.4.11



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FortiManager 7.4.11 CLI Reference
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Change Log

Date	Change Description
2026-05-07	Initial release.

Introduction

FortiManager Centralized Security Management provides a single-pane-of-glass for visibility across the entire Fortinet Security Fabric, as well as to manage Fortinet's security and networking devices to speed the identification of, and response to, security incidents. It allows easy control of the deployment of security policies, FortiGuard content security updates, firmware revisions, and individual configurations for thousands of Fortinet devices.

FortiManager includes:

- Enterprise-class centralized management with single pane-of-glass
- Full control of your network with the Fortinet security fabric
- Common security baseline enforcement for multi-tenancy environments
- Multi-tier management for administrative and virtual domain policy management
- Scalable centralized device & policy management

FortiManager documentation

The following FortiManager product documentation is available:

- *FortiManager Administration Guide*
  This document describes how to set up the FortiManager system and use it to manage supported Fortinet units. It includes information on how to configure multiple Fortinet units, configuring and managing the FortiGate VPN policies, monitoring the status of the managed devices, viewing and analyzing the FortiGate logs, updating the virus and attack signatures, providing web filtering and email filter service to the licensed FortiGate units as a local FDS, firmware revision control and updating the firmware images of the managed units.
- *FortiManager device QuickStart Guides*
  These documents are included with your FortiManager system package. Use this document to install and begin working with the FortiManager system and FortiManager GUI.
- *FortiManager Online Help*
  You can get online help from the FortiManager GUI. FortiManager online help contains detailed procedures for using the FortiManager GUI to configure and manage FortiGate units.
- *FortiManager CLI Reference*
  This document describes how to use the FortiManager Command Line Interface (CLI) and contains references for all FortiManager CLI commands.
- *FortiManager Release Notes*
  This document describes new features and enhancements in the FortiManager system for the release, and lists resolved and known issues. This document also defines supported platforms and firmware versions.
- *FortiManager VM Install Guide*
  This document describes installing FortiManager VM in your virtual environment.

What's New in FortiManager 7.4

The following tables list the commands and variables that have changed in the CLI.

FortiManager 7.4.11

The table below lists commands that have changed in version 7.4.11.

Command	Change
`config fmupdate service`	Variable added: • geoip
`config system admin setting`	Variable added: • admin-httpd-keep-alive-timeout
`config system global`	Variable added: • skip-ip-check-in-session
`diagnose system export fmwslog`	Command removed.
`get system tablesize`	Command added.

FortiManager 7.4.10

No commands have changed in version 7.4.10.

FortiManager 7.4.9

The table below lists commands that have changed in version 7.4.9.

Command	Change
`config system admin profile`	Variable added: • read-passwd
`diagnose rtm profile update`	Command updated.
`diagnose system export umlog`	Command updated.
`execute device reset database`	Command added.

FortiManager 7.4.8

The table below lists commands that have changed in version 7.4.8.

Command	Change
`config system admin profile`	Variable removed: • extension-access
`config system admin setting`	Variable added: • admin-scp
`config system docker`	Command removed.
`config system global`	Variable added: • gui-install-preview-concurrency
`config system locallog [disk | memory | fortianalyzer | fortianalyzer2 | fortianalyzer3 | syslogd | syslogd2 | syslogd3] filter`	Variable removed: • docker
`config system log settings`	Variable updated: • legacy-auth-mode
`config system saml`	Variables added: • logout-request-signed • logout-response-signed
`diagnose debug apache`	Command added.
`diagnose debug application docker`	Command removed.
`diagnose docker`	Command removed.
`diagnose dvm fap sync-to-adom`	Command added.
`diagnose dvm fsw sync-to-adom`	Command added.
`diagnose fwmanager image-delete`	Command removed.
`diagnose rtm history-data`	Command added.
`execute backup all-settings`	Command updated.
`execute format`	Command updated.

FortiManager 7.4.7

The table below lists commands that have changed in version 7.4.7.

Command	Change
config system admin profile	Variable added: • device-fwm-profile
config system admin setting	Variables added: • rtm-max-monitor-by-size
config system dm	Variable added: • handle-nonhasync-config
config system docker	Variables removed: • fortiaiops • fortisoar • fortiwlm • policyanalyzer
config system global	Variables added: • fgfm-allow-vm • gui-feature-visibility-mode • hitcount-response-timeout • rpc-log
config system log device-disable	Command removed.
config system log device-selector	Command added.
config system log settings	Variables added: • legacy-auth-mode • log-process-fast-mode
config system log ueba	Variable added: • hostname-ep-unifier
config system password-policy	Variable added: • login-lockout-upon-downgrade
diagnose debug application mapclient	Command added.
diagnose debug service rpc-auth	Command updated.
diagnose docker reset	Command updated.
diagnose docker upgrade	Command updated.
diagnose dvm adom lockinfo	Command added.
diagnose dvm device lockinfo	Command added.
diagnose dvm lock	Command removed.
diagnose dvm lockinfo	Command added.
diagnose dvm task lockinfo	Command added.

Command	Change
`diagnose rtm debug-log`	Command added.
`diagnose rtm history-db check`	Command removed.
`diagnose rtm history-db recover`	Command removed.
`diagnose sql hcache add-task agg-update-level`	Command added.
`diagnose sql hcache check`	Command added.
`diagnose system export rpclog`	Command added.
`diagnose system filesystem`	Command added.
`execute backup task`	Command added.
`execute fmscript list-tcl-files`	Command added.

FortiManager 7.4.6

The table below lists commands that have changed in version 7.4.6.

Command	Change
`config system admin radius`	Variables added: • ca-cert • client-cert • message-authenticator • protocol
`config system global`	Variable removed: • fgfm-peercert-withoutsn Variable added: • apache-wsgi-processes
`config system snmp user`	Variable added: • notify-port
`diagnose fmupdate test`	Command updated.
`diagnose sql debug chlog show`	Command added.
`diagnose sql debug chlog upload`	Command added.
`diagnose system print ipcs`	Command added.
`diagnose system process kill`	Command updated.
`diagnose system process killall`	Command updated.
`execute backup ha`	Command added.
`execute fmscript export-tcl-files`	Command added.

FortiManager 7.4.5

No commands have changed in version 7.4.5.

FortiManager 7.4.4

The table below lists commands which have changed in version 7.4.4.

Command	Change
`config fmupdate fwm-setting`	Variable added: • send-image-retry
`config system global`	Variables added: • admin-host • admin-ssh-grace-time • fcp-cfg-service • global-ssl-protocol • httpd-ssl-protocol • mapclient-ssl-protocol Variables removed: • ssl-protocol
`config system connector`	Variables added: • conn-ssl-protocol
`config system admin ldap`	Variables added: • ssl-protocol
`config system syslog`	Variables added: • ssl-protocol
`config system mail`	Variables added: • ssl-protocol
`config system csf`	Variables added: • ssl-protocol
`diagnose debug application dmsase`	Command added.
`diagnose rtm profile change-adom`	Command added.
`diagnose rtm profile update check-interval`	Command updated.
`diagnose rtm profile update post-interval`	Command added.
`diagnose rtm profile update retry-interval`	Command added.
`diagnose system mapserver clearcache`	Command added.

Command	Change
`diagnose system mapserver reset`	Command removed.
`diagnose system mapserver set`	Command added.
`diagnose system mapserver unset`	Command added.
`diagnose history-db`	Command added
`execute backup fds`	Command added.
`execute backup fgd`	Command added.
`execute backup fmg-logs`	Command added.
`execute backup fwm`	Command added.
`execute backup rtm`	Command added.
`execute max-dev-license`	Command removed.

FortiManager 7.4.3

The table below lists commands which have changed in version 7.4.3.

Command	Change
`config system admin profile`	Variables removed: • device-forticlient • read-passwd • realtime-monitor
`config system admin ldap`	Variable removed: • connect-timeout
`config system fortiview auto-cache`	Variable added: • incr-fortiview
`config system global`	Variable added: • fgfm-deny-unknown • fgfm-peercert-withoutsn
`config system locallog {syslogd | syslogd2 | syslogd3} setting`	Variables removed: • cert • reliable • secure-connection
`config system log ueba`	Subcommand added.
`diagnose cdb manual-fix`	Command added.
`diagnose dvm adom time-zone`	Command added.

Command	Change
`diagnose pm2 db-recover`	Command added.
`diagnose sql debug sqlqry auto-explain disable`	Command added.
`diagnose sql debug sqlqry auto-explain enable`	Command added.
`diagnose system mapserver checksum`	Command added.
`diagnose system mapserver set`	Command removed.
`diagnose test connection`	Command updated.
`execute lvm hwinfo`	Command added.
`execute max-dev-license`	Command added.

FortiManager 7.4.2

The table below lists commands which have changed in version 7.4.2.

Command	Change
`config fmupdate fwm-setting`	Variables added: • health-check • max-device-history • max-profile-history • retrieve • retry-interval • retry-max • revision-diff
`config fmupdate web-spam fgd-setting`	Variable added: • stat-log
`config system admin profile`	Variables added: • fgt-gui-proxy • policy-ips-attrs • write-passwd-access • write-passwd-profiles • write-passwd-user-list
`config system admin setting`	Variables added: • fgt-gui-proxy • fgt-gui-proxy-port
`config system connector`	Variables added: • faznotify-msg-queue-max • faznotify-msg-timeout

Command	Change
`config system global`	Variable added: • api-ip-binding • ssh-enc-algo • ssh-hostkey-algo • ssh-kex-algo • ssh-mac-algo • ssh-strong-crypto
`config system interface`	Variables added: • mode • dhcp-client-identifier • defaultgw • dns-server-override • mtu-override
`config system locallog setting`	Variable added: • no-log-detection-threshold
`config system log settings`	Variable added: • log-interval-dev-no-logging • log-upload-interval-dev-no-logging
`diagnose cdb upgrade check`	Command updated.
`diagnose debug application dhcpcd`	Command added.
`diagnose debug application fazsvcd`	Command updated.
`diagnose debug raw-elog`	Command added.
`diagnose dvm extender sync-extender-data`	Command updated.
`diagnose fwmanager report`	Command added.
`diagnose ha dump-cloud-api-log`	Command added.
`diagnose system export`	Variable added: • crashlog • dminstall • upgradelog • vartmp
`diagnose sql debug impexport`	Command added.
`execute backup all-settings`	Command updated.
`execute fmupdate`	Command updated.
`execute remove gui-data-cache`	Command added.
`execute sql-local`	Variable added: • rebuild-siemdb

FortiManager 7.4.1

The table below lists commands which have changed in version 7.4.1.

Command	Change
`config fmupdate av-ips web-proxy`	Command removed.
`config fmupdate service`	Variables added: • query-iot-collection • query-iot-vulnerability
`config fmupdate web-spam web-proxy`	Command removed.
`config system csf`	Command added.
`config system dm`	Variables added: • fgfm-auto-retrieve-timeout • install-fds-timeout • log-autoupdate
`config system docker`	Variable removed: • fortiportal
`config system global`	Variables added: • apache-mode • fortiservice-port • management-ip • management-port • no-vip-value-check • save-last-hit-in-adomdb
`config system ha`	Variable added: • vip-interface
`config system locallog [disk | memory | fortianalyzer | fortianalyzer2 | fortianalyzer3 | syslogd | syslogd2 | syslogd3] filter`	Variable added: • controller
`config system log setting`	Variables added: • device-auto-detect • unencrypted-logging
`config system sql`	Variables removed: • rebuild-event • rebuild-event-start-time
`diagnose debug application`	Commands added: • csfd • fsvrd • keepalived

Command	Change
`diagnose docker reset fortiportal`	Command removed.
`diagnose docker upgrade fortiportal`	Command removed.
`diagnose dvm device coordinate`	Command added.
`diagnose dvm remove autoupdatelog`	Command added.
`diagnose fwmanager`	Commands updated: • image-list • profile
`diagnose ha force-vrrp-election`	Command added.
`diagnose sql config`	Commands added: • hcache-auto-rebuild-status • hcache-auto-rebuild-task-priority
`diagnose sql hcache`	Commands updated: • rebuild-both • rebuild-fortiview • rebuild-report
`diagnose sql status upgrade-db`	Command added.
`diagnose system csf`	Commands added: • authorization • downstream • downstream-devices • global • upstream
`diagnose system export autoupdatelog`	Command added.
`diagnose system process fdlist`	Command updated.
`diagnose test application csfd`	Command added.
`execute fmpolicy unlink-adom-object`	Command added.
`execute fmscript clear-tcl-files`	Command added.
`execute sql-report`	Commands updated: • hcache-build • hcache-check • run • view

FortiManager 7.4.0

The table below lists commands which have changed in version 7.4.0.

Command	Change
`config fmupdate fds-setting`	Variable added: • system-support-fis
`config system admin setting`	Variables added: • firmware-upgrade-check • fsw-ignore-platform-check
`config system connector`	Variable added: • cloud-orchest-refresh-interval
`config system global`	Variables added: • log-checksum-upload • no-copy-permission-check
`config system locallog [disk | memory | fortianalyzer | fortianalyzer2 | fortianalyzer3 | syslogd | syslogd2 | syslogd3] filter`	Variable removed: • aid
`config system locallog setting`	Variable added: • log-interval-adom-perf-stats
`config system report auto-cache`	Variable added: • sche-rpt-only
`config system saml`	Variables added: • auth-request-signed • want-assertions-signed
`config system soc-fabric`	Variable removed: • psk Subcommand added: • trusted-list
`diagnose debug application`	Command added: • sdnproxy
`diagnose dvm adom`	Command added: • reset-default-flags
`diagnose dvm supported-platforms`	Command added: • fimg-list
`diagnose dvm template`	Command added
`diagnose fortitoken-cloud`	Commands added • status • trial

Command	Change
`diagnose fwmanager`	Command updated: • set-controller-schedule Command added: • profile
`diagnose log restore`	Command added
`diagnose sql debug`	Commands removed: • pglog dbgon • pglog dbgoff • pglog delete
`diagnose sql remove`	Command updated: • hcache
`diagnose test application`	Command added: • sdnproxyd
`execute benchmark`	Command added
`execute ssh-regen-keys`	Command added

Using the Command Line Interface

This chapter explains how to connect to the CLI and describes the basics of using the CLI. You can use CLI commands to view all system information and to change all system configuration settings.

This chapter describes:

CLI command syntax

This guide uses the following conventions to describe command syntax.

- Angle brackets < > indicate variables.
- Vertical bar and curly brackets `{ | }` separate alternative, mutually exclusive required keywords.
  For example:
  ```
  set protocol {ftp | sftp}
  ```
  You can enter `set protocol ftp` or `set protocol sftp`.
- Square brackets `[ ]` indicate that a variable is optional.
  For example:
  ```
  show system interface [<name_str>]
  ```
  To show the settings for all interfaces, you can enter `show system interface`. To show the settings for the Port1 interface, you can enter `show system interface port1`.
- A space separates options that can be entered in any combination and must be separated by spaces.
  For example:
  ```
  set allowaccess {http https ping snmp soc-fabric ssh webservice}
  ```
  You can enter any of the following:
  ```
  set allowaccess ping
  set allowaccess https ping
  set allowaccess http https ping snmp soc-fabric ssh webservice
  ```
  In most cases to make changes to lists that contain options separated by spaces, you need to retype the whole list including all the options you want to apply and excluding all the options you want to remove.
- Special characters:
  - The \ is supported to escape spaces or as a line continuation character.
  - The single quotation mark ' and the double quotation mark " are supported, but must be used in pairs.
  - If there are spaces in a string, you must precede the spaces with the \ escape character or put the string in a pair of quotation marks.

Connecting to the CLI

You can use a direct console connection, SSH, or the CLI console widget in the GUI to connect to the FortiManager CLI. For more information, see the FortiManager Administration Guide and your device's QuickStart Guide.

- Connecting to the FortiManager console
- Setting administrative access on an interface
- Connecting to the FortiManager CLI using SSH
- Connecting to the FortiManager CLI using the GUI

Connecting to the FortiManager console

To connect to the FortiManager console, you need:

- a computer with an available communications port
- a console cable, provided with your FortiManager unit, to connect the FortiManager console port and a communications port on your computer
- terminal emulation software, such as HyperTerminal for Windows.

The following procedure describes how to connect to the FortiManager CLI using Windows HyperTerminal software. You can use any terminal emulation program.

To connect to the CLI:

1. Connect the FortiManager console port to the available communications port on your computer.
2. Make sure that the FortiManager unit is powered on.
3. Start a terminal emulation program on the management computer, select the COM port, and use the following settings:

COM port	**COM1**
Baud rate	**9600**
Data bits	**8**
Parity	**None**
Stop bits	**1**
Flow control	**None**

4. Press `Enter` to connect to the FortiManager CLI.
5. In the log in prompt, enter the username and password.
   The default log in is username: `admin`, and no password.
   You have connected to the FortiManager CLI, and you can enter CLI commands.

Setting administrative access on an interface

To perform administrative functions through a FortiManagernetwork interface, you must enable the required types of administrative access on the interface to which your management computer connects. Access to the CLI requires Secure Shell (SSH) access. If you want to use the GUI, you need HTTPS access.

To use the GUI to configure FortiManager interfaces for SSH access, see the FortiManager Administration Guide.

To use the CLI to configure SSH access:

1. Connect and log into the CLI using the FortiManager console port and your terminal emulation software.
2. Use the following command to configure an interface to accept SSH connections:
   ```
   config system interface
      edit <interface_name>
         set allowaccess <access_types>
      end
   ```
   Where `<interface_name>` is the name of the FortiManager interface to be configured to allow administrative access, and `<access_types>` is a whitespace-separated list of access types to enable.
   For example, to configure port1 to accept HTTPS and SSH connections, enter:
   ```
   config system interface
      edit port1
         set allowaccess https ssh
      end
   ```

   

   Remember to press `Enter` at the end of each line in the command example. Also, type `end` and press `Enter` to commit the changes to the FortiManager configuration.

3. To confirm that you have configured SSH access correctly, enter the following command to view the access settings for the interface:
   ```
   get system interface <interface_name>
   ```
   The CLI displays the settings, including the management access settings, for the named interface.

Connecting to the FortiManager CLI using SSH

SSH provides strong secure authentication and secure communications to the FortiManager CLI from your internal network or the internet. Once the FortiManager unit is configured to accept SSH connections, you can run an SSH client on your management computer and use this client to connect to the FortiManager CLI.

To connect to the CLI using SSH:

1. Install and start an SSH client.
2. Connect to a FortiManager interface that is configured for SSH connections.
3. Enter a valid administrator name and press `Enter`.
4. Enter the password for this administrator and press `Enter`.
   The FortiManager model name followed by a `#` is displayed.
   You have connected to the FortiManager CLI, and you can enter CLI commands.

Connecting to the FortiManager CLI using the GUI

The GUI also provides a CLI console widget.

To connect to the CLI using the GUI:

1. Connect to the GUI and log in.
   For information about how to do this, see the FortiManager Administration Guide.
2. In the banner, click >_.
   The *CLI Console* widget opens.

CLI objects

The FortiManager CLI is based on configurable objects. The top-level objects are the basic components of FortiManager functionality. Each has its own chapter in this guide.

fmupdate	Configures settings related to FortiGuard service updates and the FortiManager unit's built-in FDS. See fmupdate on page 148.
system	Configures options related to the overall operation of the FortiManager unit, such as interfaces, virtual domains, and administrators. See system on page 45.

There is a chapter in this manual for each of these top-level objects. Each of these objects contains more specific lower level objects. For example, the system object contains objects for administrators, dns, interfaces, and so on.

CLI command branches

The FortiManager CLI consists of the following command branches:

config branch	execute branch
get branch	diagnose branch
show branch	

Examples showing how to enter command sequences within each branch are provided in the following sections.

config branch

The `config` commands configure objects of FortiManager functionality. Top-level objects are not configurable, they are containers for more specific lower level objects. For example, the system object contains administrators, DNS addresses, interfaces, routes, and so on. When these objects have multiple sub-objects, such as administrators or routes, they are organized in the form of a table. You can add, delete, or edit the entries in the table. Table entries each consist of keywords that you can set to particular values. Simpler objects, such as system DNS, are a single set of keywords.

To configure an object, you use the `config` command to navigate to the object's command "shell". For example, to configure administrators, you enter the command

```
config system admin user
```

The command prompt changes to show that you are in the admin shell.

```
(user)#
```

This is a table shell. You can use any of the following commands:

delete	Remove an entry from the FortiManager configuration. For example in the `config system admin` shell, type `delete newadmin` and press `Enter` to delete the administrator account named `newadmin`.
edit	Add an entry to the FortiManager configuration or edit an existing entry. For example in the `config system admin` shell: • type `edit admin` and press `Enter` to edit the settings for the default admin administrator account. • type `edit newadmin` and press `Enter` to create a new administrator account with the name `newadmin` and to edit the default settings for the new administrator account.
end	Save the changes you have made in the current shell and leave the shell. Every `config` command must be paired with an `end` command. You return to the root FortiManager CLI prompt. The `end` command is also used to save `set` command changes and leave the shell.
get	List the configuration. In a table shell, `get` lists the table members. In an edit shell, `get` lists the keywords and their values.
purge	Remove all entries configured in the current shell. For example in the `config user local` shell: • type `get` to see the list of user names added to the FortiManager configuration, • type `purge` and then `y` to confirm that you want to purge all the user names, • type `get` again to confirm that no user names are displayed.
show	Show changes to the default configuration as configuration commands.

If you enter the `get` command, you see a list of the entries in the table of administrators. To add a new administrator, you enter the edit command with a new administrator name:

```
edit admin_1
```

The FortiManager unit acknowledges the new table entry and changes the command prompt to show that you are now editing the new entry:

```
new entry 'admin_1' added
(admin_1)#
```

From this prompt, you can use any of the following commands:

abort	Exit an edit shell without saving the configuration.

config	In a few cases, there are subcommands that you access using a second config command while editing a table entry. An example of this is the command to add host definitions to an SNMP community.
end	Save the changes you have made in the current shell and leave the shell. Every `config` command must be paired with an `end` command. The `end` command is also used to save `set` command changes and leave the shell.
get	List the configuration. In a table shell, `get` lists the table members. In an edit shell, `get` lists the keywords and their values.
next	Save the changes you have made in the current shell and continue working in the shell. For example if you want to add several new admin user accounts enter the `config system admin user` shell. 1. Enter `edit User1` and press `Enter`. 2. Use the `set` commands to configure the values for the new admin account. 3. Enter `next` to save the configuration for User1 without leaving the `config system admin user` shell. 4. Continue using the `edit`, `set`, and `next` commands to continue adding admin user accounts. 5. Type `end` then press `Enter` to save the last configuration and leave the shell.
set	Assign values. For example from the `edit admin` command shell, typing `set passwd newpass` changes the password of the admin administrator account to `newpass`. **Note**: When using a set command to make changes to lists that contain options separated by spaces, you need to retype the whole list including all the options you want to apply and excluding all the options you want to remove.
show	Show changes to the default configuration in the form of configuration commands.
unset	Reset values to defaults. For example from the `edit admin` command shell, typing `unset passwd` resets the password of the admin administrator account to the default of no password.

The `config` branch is organized into configuration shells. You can complete and save the configuration within each shell for that shell, or you can leave the shell without saving the configuration. You can only use the configuration commands for the shell that you are working in. To use the configuration commands for another shell you must leave the shell you are working in and enter the other shell.

The root prompt is the FortiManager host or model name followed by a #.

get branch

Use `get` to display settings. You can use `get` within a `config` shell to display the settings for that shell, or you can use `get` with a full path to display the settings for the specified shell.

To use `get` from the root prompt, you must include a path to a shell.

Example

When you type `get` in the `config system admin user` shell, the list of administrators is displayed.

At the `(user)#` prompt, type:

```
get
```

The screen displays:

```
== [ admin ]
userid: admin
== [ admin2 ]
userid: admin2
== [ admin3 ]
userid: admin3
```

Example

When you type `get` in the `admin` user shell, the configuration values for the admin administrator account are displayed.

```
edit admin
```

At the `(admin)#` prompt, type:

```
get
```

The screen displays:

```
userid : admin
login-max : 32
password : *
change-password : enable
trusthost1 : 0.0.0.0 0.0.0.0
trusthost2 : 255.255.255.255 255.255.255.255
trusthost3 : 255.255.255.255 255.255.255.255
trusthost4 : 255.255.255.255 255.255.255.255
trusthost5 : 255.255.255.255 255.255.255.255
trusthost6 : 255.255.255.255 255.255.255.255
trusthost7 : 255.255.255.255 255.255.255.255
trusthost8 : 255.255.255.255 255.255.255.255
trusthost9 : 255.255.255.255 255.255.255.255
trusthost10 : 255.255.255.255 255.255.255.255
ipv6_trusthost1 : ::/0
ipv6_trusthost2 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost3 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost4 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost5 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost6 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost7 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost8 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost9 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
ipv6_trusthost10 : ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128
profileid : Super_User
dev-group : (null)
description : (null)
user_type : local
ssh-public-key1 :
ssh-public-key2 :
ssh-public-key3 :
avatar : (null)
meta-data:
   == [ Contact Email ]
   fieldname: Contact Email
   == [ Contact Phone ]
   fieldname: Contact Phone
password-expire : 0000-00-00 00:00:00
```

```
   force-password-change: disable
   rpc-permit : none
   use-global-theme : enable
   last-name : (null)
   first-name : (null)
   email-address : (null)
   phone-number : (null)
   mobile-number : (null)
   pager-number : (null)
   hidden : 0
   dashboard-tabs:
   dashboard:
```

Example

You want to confirm the IPv4 address and netmask of the port1 interface from the root prompt.

At the # prompt, type:

```
get system interface port1
```

The screen displays:

```
name : port1
status : enable
mode : static
ip : 10.10.10.10 255.255.255.0
allowaccess : ping https ssh snmp http webservice fgfm https-logging
serviceaccess :
lldp : disable
speed : auto
description : (null)
alias : (null)
mtu : 1500
type : physical
ipv6:
   ip6-address: ::/0 ip6-allowaccess: ip6-autoconf: enable
```

show branch

Use `show` to display the FortiManager unit configuration. Only changes to the default configuration are displayed. You can use `show` within a `config` shell to display the configuration of that shell, or you can use `show` with a full path to display the configuration of the specified shell.

To display the configuration of all `config` shells, you can use `show` from the root prompt.

Example

When you type `show` and press `Enter` within the `port1` interface shell, the changes to the default interface configuration are displayed.

At the `(port1)#` prompt, type:

```
show
```

The screen displays:

```
config system interface
```

```
    edit "port1"
       set ip ***.**.***.** 255.255.255.0
       set allowaccess https ssh
       set type physical
    next
end
```

Example

You are working in the `port1` interface shell and want to see the `system dns` configuration. At the `(port1)#` prompt, type:

```
show system dns
```

The screen displays:

```
config system dns
   set primary 172.39.139.53
   set secondary 172.39.139.63
end
```

execute branch

Use `execute` to run static commands, to reset the FortiManager unit to factory defaults, or to back up or restore the FortiManager configuration. The execute commands are available only from the root prompt.

Example

At the root prompt, type:

```
execute reboot
```

and press `Enter` to restart the FortiManager unit.

diagnose branch

Commands in the `diagnose` branch are used for debugging the operation of the FortiManager unit and to set parameters for displaying different levels of diagnostic information. The `diagnose` commands are not documented in this CLI Reference.

`diagnose` commands are intended for advanced users only. Contact Fortinet Customer Support before using these commands.

Example command sequences

The command prompt changes for each shell.

To configure the primary and secondary DNS server addresses:

1. Starting at the root prompt, type:
   ```
   config system dns
   ```
   and press `Enter`. The prompt changes to `(dns)#`.
2. At the `(dns)#` prompt, type `?`
   The following options are displayed.
   ```
   set
   unset
   get
   show
   abort
   end
   ```
3. Enter `set ?`
   The following options are displayed:
   ```
   primary
   secondary
   ip6-primary
   ip6-secondary
   ```
4. To set the primary DNS server address to `172.16.100.100`, type:
   ```
   set primary 172.16.100.100
   ```
   and press `Enter`.
5. To set the secondary DNS server address to `207.104.200.1`, type:
   ```
   set secondary 207.104.200.1
   ```
   and press `Enter`.
6. To restore the primary DNS server address to the default address, type `unset primary` and press `Enter`.
   If you want to leave the `config system dns` shell without saving your changes, type `abort` and press `Enter`.
7. To save your changes and exit the `dns` sub-shell, type `end` and press `Enter`.
8. To confirm your changes have taken effect after leaving the `dns` sub-shell, type `get system dns` and press `Enter`.

CLI basics

This section covers command line interface basic information.

Command help

You can press the question mark (?) key to display command help.

- Press the question mark (?) key at the command prompt to display a list of the commands available and a description of each command.
- Enter a command followed by a space and press the question mark (?) key to display a list of the options available for that command and a description of each option.
- Enter a command followed by an option and press the question mark (?) key to display a list of additional options available for that command option combination and a description of each option.

Command tree

Enter `tree` to display the FortiManager CLI command tree. To capture the full output, connect to your device using a terminal emulation program, such as PuTTY, and capture the output to a log file. For `config` commands, use the `tree` command to view all available variables and sub-commands.

Command completion

You can use the tab key or the question mark (?) key to complete commands.

- You can press the tab key at any prompt to scroll through the options available for that prompt.
- You can type the first characters of any command and press the tab key or the question mark (?) key to complete the command or to scroll through the options that are available at the current cursor position.
- After completing the first word of a command, you can press the space bar and then the tab key to scroll through the options available at the current cursor position.

Recalling commands

You can recall previously entered commands by using the Up and Down arrow keys to scroll through commands you have entered.

Editing commands

Use the left and right arrow keys to move the cursor back and forth in a recalled command. You can also use Backspace and Delete keys, and the control keys listed in the following table to edit the command.

Function	Key combination
Beginning of line	Control key + A
End of line	Control key + E
Back one word	Control key + B
Forward one word	Control key + F
Delete current character	Control key + D
Previous command	Control key + P
Next command	Control key + N
Abort the command	Control key + C
If used at the root prompt, exit the CLI	Control key + C

Line continuation

To break a long command over multiple lines, use a \ at the end of each line.

Command abbreviation

You can abbreviate commands and command options to the smallest number of non-ambiguous characters. For example, the command `get system status` can be abbreviated to `g sy st`.

Environment variables

The FortiManager CLI supports several environment variables.

$USERFROM	The management access type (SSH, Telnet and so on) and the IPv4 address of the logged in administrator.
$USERNAME	The user account name of the logged in administrator.
$SerialNum	The serial number of the FortiManager unit.

Variable names are case sensitive. In the following example, when entering the variable, you can type `$` followed by a tab to auto-complete the variable to ensure that you have the exact spelling and case. Continue pressing tab until the variable you want to use is displayed.

```
config system global
   set hostname $SerialNum
end
```

Encrypted password support

After you enter a clear text password using the CLI, the FortiManager unit encrypts the password and stores it in the configuration file with the prefix ENC. For example:

```
show system admin user user1
config system admin user
   edit "user1"
      set password ENC
           UAGUDZ1yEaG30620s6afD3Gac1FnOT0BC1rVJmMFc9ubLlW4wEvHcqGVq+ZnrgbudK7aryyf1scXcX
           dnQxskRcU3E9XqOit82PgScwzGzGuJ5a9f
      set profileid "Standard_User"
   next
end
```

It is also possible to enter an already encrypted password. For example, type:

```
config system admin
```

then press `Enter`.

Enter:

```
edit user1
```

then press `Enter`.

Enter:

```
set password ENC
     UAGUDZ1yEaG30620s6afD3Gac1FnOT0BC1rVJmMFc9ubLlW4wEvHcqGVq+ZnrgbudK7aryyf1scXcXdnQxsk
     RcU3E9XqOit82PgScwzGzGuJ5a9f
```

then press `Enter`.

Enter:

```
end
```

then press `Enter`.

Entering spaces in strings

When a string value contains a space, do one of the following:

- Enclose the string in quotation marks, `"Security Administrator"`, for example.
- Enclose the string in single quotes, `'Security Administrator'`, for example.
- Use a backslash (“\”) preceding the space, `Security\ Administrator`, for example.

Entering quotation marks in strings

If you want to include a quotation mark, single quote, or apostrophe in a string, you must precede the character with a backslash character. To include a backslash, enter two backslashes.

Entering a question mark (?) in a string

If you want to include a question mark (?) in a string, you must precede the question mark with CTRL-V. Entering a question mark without first entering CTRL-V causes the CLI to display possible command completions, terminating the string.

International characters

The CLI supports international characters in strings.

Special characters

The characters <, >, (,), #, ’, and " are not permitted in most CLI fields, but you can use them in passwords. If you use the apostrophe (‘) or quote (") character, you must precede it with a backslash (\) character when entering it in the CLI `set` command.

IPv4 address formats

You can enter an IPv4 address and subnet using either dotted decimal or slash-bit format. For example you can type either:

```
set ip 192.168.1.1 255.255.255.0
```

or

```
set ip 192.168.1.1/24
```

The IPv4 address is displayed in the configuration file in dotted decimal format.

Changing the baud rate

Using `execute console baudrate`, you can change the default console connection baud rate.

Changing the default baud rate is not available on all models.

Debug log levels

The following table lists available debug log levels on your FortiManager.

0	Emergency	The system has become unusable.
1	Alert	Immediate action is required.
2	Critical	Functionality is affected.
3	Error	An erroneous condition exists and functionality is probably affected.
4	Warning	Function might be affected.
5	Notice	Notification of normal events.
6	Information	General information about system operations.
7	Debug	Detailed information useful for debugging purposes.
8	Maximum	Maximum log level.

Administrative Domains

This chapter provides information about the ADOM functionality in FortiManager .

ADOMs overview

FortiManager can manage a large number of Fortinet devices. ADOMs enable administrators to manage only those devices that are specific to their geographic location or business division. This also includes FortiGate units with multiple configured VDOMs.

If ADOMs are enabled, each administrator account is tied to an administrative domain. When a particular administrator logs in, they see only those devices or VDOMs that have been enabled for their account. The one exception is the `admin` administrator account which can see and maintain all administrative domains and the devices within those domains.

Administrative domains are not enabled by default, and enabling and configuring the domains can only be performed by the `admin` administrator. For more information, see Configuring ADOMs on page 42.

The default and maximum number of administrative domains you can add depends on the FortiManager system model. The table below outlines these limits.

FortiManager Model	Administrative Domain / Network Devices
FMG-100C	30 / 30
FMG-200D	30 / 30
FMG-300D	300 / 300
FMG-400C	300 / 300
FMG-1000C	800 / 800
FMG-1000D	1000 / 1000
FMG-3000C	5000 / 5000
FMG-3900E	5000 / 5000
FMG-4000D	4000 / 4000
FMG-4000E	4000 / 4000
FMG-VM-Base	10 / 10
FMG-VM-10-UG	+10 / +10
FMG-VM-100-UG	+100 / +100
FMG-VM-1000-UG	+1000 / +1000
FMG-VM-5000-UG	+5000 / +5000
FMG-VM-U-UG	+10000 / +10000

Configuring ADOMs

To use administrative domains, the `admin` administrator must first enable the feature, create ADOMs, and assign existing FortiManager administrators to ADOMs.

Enabling ADOMs moves non-global configuration items to the `root` ADOM. Back up the FortiManager unit configuration before enabling ADOMs.

ADOMs must be enabled before adding FortiMail, FortiWeb, and FortiCarrier devices to the FortiManager system. FortiMail and FortiWeb devices are added to their respective pre-configured ADOMs.

In FortiManager 5.0.3 and later, FortiGate and FortiCarrier devices can no longer be grouped into the same ADOM. FortiCarrier devices should be grouped into a dedicated FortiCarrier ADOM.

Within the CLI, you can enable ADOMs and set the administrator ADOM. To configure the ADOMs, you must use the GUI.

To Enable/disable ADOMs:

Enter the following CLI command:

```
config system global
   set adom-status {enable | disable}
end
```

An administrative domain has two modes: normal and advanced. Normal mode is the default device mode. In normal mode, a FortiGate unit can only be added to a single administrative domain. In advanced mode, you can assign different VDOMs from the same FortiGate to multiple administrative domains.

Enabling the advanced mode option will result in more complicated management scenarios. It is recommended only for advanced users.

To change ADOM device modes:

Enter the following CLI command:

```
config system global
   set adom-mode {advanced | normal}
end
```

To assign an administrator to an ADOM:

Enter the following CLI command:

```
config system admin user
```

```
    edit <name>
       set adom <adom_name>
    next
end
```

where <name> is the administrator user name and <adom_name> is the ADOM name.

Concurrent ADOM Access

System administrators can enable/disable concurrent access to the same ADOM if multiple administrators are responsible for managing a single ADOM. When enabled, multiple administrators can log in to the same ADOM concurrently. When disabled, only a single administrator has read/write access to the ADOM, while all other administrators have read-only access.

Concurrent ADOM access can be enabled or disabled using the CLI or the GUI. The settings apply to all ADOMs, unless you set workspace-mode to per-ADOM. When per-ADOM is enabled, you can apply different settings to each ADOM by using the GUI.

Concurrent ADOM access is enabled by default. This can cause conflicts if two administrators attempt to make configuration changes to the same ADOM concurrently.

To enable ADOM locking and disable concurrent ADOM access for all ADOMs:

```
config system global
   set workspace-mode normal
end
```

To disable ADOM locking and enable concurrent ADOM access for all ADOMs:

```
config system global
   set workspace-mode disabled
      Warning: disabling workspaces may cause some logged in users to lose their unsaved
           data. Do you want to continue? (y/n) y
end
```

To enable workspace workflow mode for all ADOMs:

```
config system global
   set workspace-mode workflow
end
```

When workflow mode is enabled, then the admin will have and extra option in the admin page under profile to allow the admin to approve or reject workflow requests.

To enable per-ADOM workspace mode settings:

```
config system global
   set workspace-mode per-adom
end
```

When per-adom is enabled, then the admin can set the workspace mode for each ADOM by using the GUI.

system

Use system commands to configure options related to the overall operation of the FortiManager unit.

FortiManager CLI commands and variables are case sensitive.

admin	dns	local-in-policy6	route	web-proxy
alert-console	fips	locallog	route6	workflow approval-matrix
alertemail	fortiview	log	saml	
auto-delete	global	mail	sniffer	
backup all-settings	ha	metadata	snmp	
certificate	ha-scheduled-check	ntp	soc-fabric	
connector	interface	password-policy	sql	
dm	local-in-policy	report	syslog	

TCP port numbers cannot be used by multiple services at the same time with the same IP address. If a port is already in use, it cannot be assigned to another service. For example, HTTPS and HTTP cannot have the same port number.

admin

Use the following commands to configure admin related settings.

admin group

Use this command to add, edit, and delete admin user groups.

Syntax

```
config system admin group
   edit <group>
      set member <string>
end
```

Variable	Description
<group>	Enter the name of the group you are editing or enter a new name to create an entry (character limit = 63).
member <string>	Add group members.

admin ldap

Use this command to add, edit, and delete Lightweight Directory Access Protocol (LDAP) users.

Syntax

```
config system admin ldap
   edit <server>
      set adom-access {all | specify}
      set adom-attr <string>
      set adom <adom-name>
      set attributes <filter>
      set ca-cert <string>
      set cnid <string>
      set dn <string>
      set filter <string>
      set group <string>
      set memberof-attr <string>
      set password <passwd>
      set port <integer>
      set profile-attr <string>
      set secondary-server <string>
      set secure {disable | ldaps | starttls}
      set server <string>
      set ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 |
           tlsv1.3}
      set tertiary-server <string>
      set type {anonymous | regular | simple}
      set username <string>
end
```

Variable	Description
adom-access {all | specify}	Set all or specify the ADOM access type (default = all).
<server>	Enter the name of the LDAP server or enter a new name to create an entry (character limit = 63).
adom-attr <string>	The attribute used to retrieve ADOM.
adom <adom-name>	Set the ADOM name to link to the LDAP configuration.
attributes <filter>	Attributes used for group searching (for multi-attributes, a use comma as a separator). For example: • `member` • `uniquemember`

Variable	Description
	• `member,uniquemember`
ca-cert <string>	CA certificate name. This variable appears only when `secure` is set to `ldaps` or `starttls`.
cnid <string>	Enter the common name identifier (character limit = 20, default = cn).
dn <string>	Enter the distinguished name.

filter <string>	Enter content for group searching. For example:
	`(&(objectcategory=group)(member=*))`
	`(&(objectclass=groupofnames)(member=*))`
	`(&(objectclass=groupofuniquenames)(uniquemember=*))`
	`(&(objectclass=posixgroup)(memberuid=*))`

group <string>	Enter an authorization group. The authentication user must be a member of this group (full DN) on the server.
memberof-attr <string>	The attribute used to retrieve memeberof.
password <passwd>	Enter a password for the username above. This variable appears only when `type` is set to `regular`.
port <integer>	Enter the port number for LDAP server communication (1 - 65535, default = 389).
profile-attr <string>	The attribute used to retrieve admin profile.
secondary-server <string>	Enter the secondary LDAP server domain name or IPv4 address. Enter a new name to create a new entry.
secure {disable | ldaps | starttls}	Set the SSL connection type: • `disable`: no SSL (default). • `ldaps`: use LDAPS • `starttls`: use STARTTLS
server <string>	Enter the LDAP server domain name or IPv4 address. Enter a new name to create a new entry.
ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocol version for connecting to the LDAP server. This variable is only available when `secure` is set to `ldaps` or `starttls`.
tertiary-server <string>	Enter the tertiary LDAP server domain name or IPv4 address. Enter a new name to create a new entry.
type {anonymous | regular | simple}	Set a binding type: • `anonymous`: Bind using anonymous user search • `regular`: Bind using username/password and then search • `simple`: Simple password authentication without search (default)
username <string>	Enter a username. This variable appears only when `type` is set to `regular`.

Example

This example shows how to add the LDAP user `user1` at the IPv4 address `206.205.204.203`.

```
config system admin ldap
   edit user1
      set server 206.205.204.203
      set dn techdoc
      set type regular
      set username auth1
      set password auth1_pwd
      set group techdoc
   end
```

admin profile

Use this command to configure access profiles. In a newly-created access profile, no access is enabled. Setting an option to `none` hides it from administrators with that profile assigned.

Syntax

```
config system admin profile
   edit <profile>
      set adom-lock {none | read | read-write}
      set adom-policy-packages {none | read | read-write}
      set adom-switch {none | read | read-write}
      set allow-to-install {enable | disable}
      set app-filter {enable | disable}
      set assignment {none | read | read-write}
      set change-password {enable | disable}
      set config-retrieve {none | read | read-write}
      set config-revert {none | read | read-write}
      set consistency-check {none | read | read-write}
      set datamask {enable | disable}
      set datamask-custom-priority {enable | disable}
      set datamask-fields <fields>
      set datamask-key <passwd>
      set datamask-unmasked-time <integer>
      set deploy-management {none | read | read-write}
      set description <string>
      set device-ap {none | read | read-write}
      set device-config {none | read | read-write}
      set device-fortiextender {none | read | read-write}
      set device-fortiswitch {none | read | read-write}
      set device-fwm-profile {none | read | read-write}
      set device-manager {none | read | read-write}
      set device-op {none | read | read-write}
      set device-policy-package-lock {none | read | read-write}
      set device-profile {none | read | read-write}
      set device-revision-deletion {none | read | read-write}
      set device-wan-link-load-balance {none | read | read-write}
      set event-management {none | read | read-write}
      set fabric-viewer {none | read | read-write}
      set fgd_center {none | read | read-write}
      set fgd-center-advanced {none | read | read-write}
      set fgd-center-fmw-mgmt {none | read | read-write}
      set fgd-center-licensing {none | read | read-write}
      set fgt-gui-proxy {enable | disable}
```

```
    set global-policy-packages {none | read | read-write}
    set import-policy-packages {none | read | read-write}
    set intf-mapping {none | read | read-write}
    set ips-filter {enable | disable}
    set ips-lock {none | read | read-write}
    set ips-objects {none | read | read-write}
    set ipv6_trusthost1 <IPv6 prefix>
    set ipv6_trusthost2 <IPv6 prefix>
    set ipv6_trusthost3 <IPv6 prefix>
    .
    .
    .
    set ipv6_trusthost10 <IPv6 prefix>
    set log-viewer {none | read | read-write}
    set policy-ips-attrs {none | read | read-write}
    set policy-objects {none | read | read-write}
    set read-passwd {none | read | read-write}
    set report-viewer {none | read | read-write}
    set rpc-permit {none | read | read-write}
    set run-report {none | read | read-write}
    set scope (Not Applicable)
    set script-access {none | read | read-write}
    set set-install-targets {none | read | read-write}
    set super-user-profile {enable | disable}
    set system-setting {none | read | read-write}
    set term-access {none | read | read-write}
    set triage-events {none | read | read-write}
    set trusthost1 <ip&netmask>
    set trusthost2 <ip&netmask>
    set trusthost3 <ip&netmask>
    .
    .
    .
    set trusthost10 <ip&netmask>
    set type {restricted | system}
    set update-incidents {none | read | read-write}
    set vpn-manager {none | read | read-write}
    set web-filter {enable | disable}
    set write-passwd-access {all | specify-by-profile | specify-by-user}
    set write-passwd-profiles <profile list>
    set write-passwd-user-list <user list>
    config datamask-custom-fields
       edit <field>
          set field-category {alert | all | fortiview | log | euba}
          set field-status {enable | disable}
          set field-type {email | ip | mac | string}
       next
end
```

When creating a new admin profile, the default for all permissions is `none`.

Variable	Description
<profile>	Edit the access profile. Enter a new name to create a new profile (character limit = 35). The pre-defined access profiles are *No_Permission_User*, *Password_Change_User*, *Super_User*, *Standard_User*, *Restricted_User*, and *Package_User*.
adom-lock {none | read | read-write}	Configure ADOM locking permissions for profile. Controlled functions: ADOM locking. Dependencies: `type` must be `system`
adom-policy-packages {none | read | read-write}	Enter the level of access to ADOM policy packages. This command corresponds to the Policy Packages & Objects option on the administrator profile settings page in the GUI. It is a sub-setting of `policy-objects`. Controlled functions: All the operations in ADOMs Dependencies: Install and re-install depends on Install to Devices in DVM settings, `type` must be `system`
adom-switch {none | read | read-write}	Configure administrative domain (ADOM) permissions for this profile. This command corresponds to the Administrative Domain option in the GUI. Controlled functions: ADOM settings in DVM, ADOM settings in All ADOMs page (under System Settings tab) Dependencies: If `system-setting` is `none`, the All ADOMs page is not accessible, `type` must be `system`
allow-to-install {enable | disable}	Enable/disable allowing restricting users to install objects to the devices (default = enable).
app-filter {enable | disable}	Enable/disable IPS Sensor permission for the restricted admin profile (default = disable). Dependencies: `type` must be `restricted`.
assignment {none | read | read-write}	Configure assignment permissions for this profile. This command corresponds to the Assignment option in the GUI. It is a sub-setting of `policy-objects`. Controlled functions: Global assignment in Global ADOM Dependencies: `type` must be `system`
change-password {enable | disable}	Enable/disable allowing restricted users to change their password (default = disable).
config-retrieve {none | read | read-write}	Set the configuration retrieve settings for this profile. This command corresponds to the Retrieve Configuration from Devices option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Retrieve configuration from devices Dependencies: `type` must be `system`
config-revert {none | read | read-write}	Set the configuration revert settings for this profile.

Variable	Description
	This command corresponds to the Revert Configuration from Revision History option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Revert configuration from revision history Dependencies: `type` must be `system`
consistency-check {none | read | read-write}	Configure Policy Check permissions for this profile. This command corresponds to the Policy Check option in the GUI. It is a sub-setting of `policy-objects`. Controlled functions: Policy check Dependencies: `type` must be `system`
datamask {enable | disable}	Enable/disable data masking (default = disable).
datamask-custom-priority {enable | disable}	Enable/disable custom field search priority.
datamask-fields <fields>	Enter that data masking fields, separated by spaces: • *dstip*: Destination IP • *dstname*: Destination name • *email*: Email • *message*: Message • *srcip*: Source IP • *srcmac*: Source MAC • *srcname*: Source name • *user*: User name
datamask-key <passwd>	Enter the data masking encryption key.
datamask-unmasked-time <integer>	Enter the time without data masking, in days (default = 0).
deploy-management {none | read | read-write}	Enter the level of access to the deployment management configuration settings for this profile. This command corresponds to the Install to Devices option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Install to devices Dependencies: `type` must be `system`
description <string>	Enter a description for this access profile (character limit = 1023). Enclose the description in quotes if it contains spaces.
device-ap {none | read | read-write}	Enter the level of access to device AP settings for this profile. This command corresponds to the AP Manager option in the GUI. Controlled functions: AP Manager pane Dependencies: `type` must be `system`
device-config {none | read | read-write}	Enter the level of access to device configuration settings for this profile. This command corresponds to the Manage Device Configuration option in the GUI. It is a sub-setting of `device-manager`.

Variable	Description
	Controlled functions: Edit devices, All settings under Menu in Dashboard Dependencies: `type` must be `system`
device-fortiextender {none | read | read-write}	Enter the level of access to FortiExtender settings for this profile. This command corresponds to the Extender Manager option in the GUI. Controlled functions: Extender Manager pane Dependencies: `type` must be `system`
device-fortiswitch {none | read | read-write}	Enter the level of access to the FortiSwitch Manager module for this profile. This command corresponds to the FortiSwitch Manager option in the GUI. Controlled functions: FortiSwitch Manager pane Dependencies: `type` must be `system`
device-fwm-profile {none | read | read-write}	Set the device firmware profile permission. This command corresponds to the Firmware Upgrade option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Device Manager > Firmware Templates pane Dependencies: `type` must be `system`
device-manager {none | read | read-write}	Enter the level of access to Device Manager settings for this profile. This command corresponds to the Device Manager option in the GUI. Controlled functions: Device Manager pane Dependencies: `type` must be `system`
device-op {none | read | read-write}	Add the capability to add, delete, and edit devices to this profile. This command corresponds to the Add/Delete Devices/Groups option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Add or delete devices or groups Dependencies: `type` must be `system`
device-policy-package-lock {none | read | read-write}	Configure device policy package locking permissions for this profile. Controlled functions: Policy package locking. Dependencies: `type` must be `system`
device-profile {none | read | read-write}	Configure device profile permissions for this profile. This command corresponds to the Provisioning Templates option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Provisioning Templates Dependencies: `type` must be `system`
device-revision-deletion {none | read | read-write}	Configure device revision deletion permissions for this profile. This command corresponds to the Delete Device Revision option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Deleting device revisions Dependencies: `type` must be `system`

Variable	Description
device-wan-link-load-balance {none | read | read-write}	Enter the level of access to `wan-link-load-balance` settings for this profile. This command corresponds to SD-WAN option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: SD-WAN Dependencies: `type` must be `system`
event-management {none | read | read-write}	Set the Event Management permissions. This command corresponds to the Event Management option in the GUI. Controlled functions: Event Management pane and all its operations Dependencies: `faz-status` must be set to `enable` in `system global`, `type` must be `system`
fabric-viewer {none | read | read-write}	Configure Fabric Viewer permissions. Dependencies: `type` must be `system`
fgd_center {none | read | read-write}	Set the FortiGuard Center permissions. This command corresponds to the FortiGuard Center option in the GUI. Controlled functions: FortiGuard pane, all the settings under FortiGuard, and FortiGuard images in Firmware Templates Dependencies: `type` must be `system`
fgd-center-advanced {none | read | read-write}	Set the FortiGuard Center permissions. This command corresponds to the Advanced option in the GUI. It is a sub-setting of `fgd-center`. Controlled functions: FortiGuard pane Advanced Settings options Dependencies: `type` must be `system`
fgd-center-fmw-mgmt {none | read | read-write}	Set the FortiGuard Center permissions. This command corresponds to the Firmware Management option in the GUI. It is a sub-setting of `fgd-center`. Controlled functions: FortiGuard pane Firmware Images options Dependencies: `type` must be `system`
fgd-center-licensing {none | read | read-write}	Set the FortiGuard Center permissions. This command corresponds to the License Management option in the GUI. It is a sub-setting of `fgd-center`. Controlled functions: FortiGuard pane Licensing Status options Dependencies: `type` must be `system`
fgt-gui-proxy {enable | disable}	Enable/disable the FortiGate GUI proxy.
global-policy-packages {none | read | read-write}	Configure global policy package permissions for this profile. This command corresponds to the Global Policy Packages & Objects option in the GUI. It is a sub-setting of `policy-objects`. Controlled functions: All operations in Global ADOM Dependencies: `type` must be `system`

Variable	Description
import-policy-packages {none | read | read-write}	Configure importing policy package permissions for this profile (default = none). This command corresponds to the Import Policy Package option in the GUI. Controlled functions: Importing policy packages Dependencies: `type` must be `system`
intf-mapping {none | read | read-write}	Configure interface mapping permissions for this profile. This command corresponds to the Interface Mapping option in the GUI. Controlled functions: Mapping interfaces Dependencies: `type` must be `system`
ips-filter {enable | disable}	Enable/disable Application Sensor permission for the restricted admin profile (default = disable). Dependencies: `type` must be `restricted`
ips-lock {none | read | read-write}	Set the IPS locking permission.
ips-objects {none | read | read-write}	Configure IPS signature permissions. Dependencies: `type` must be `system`
ipv6_trusthost1 <IPv6 prefix> ipv6_trusthost2 <IPv6 prefix> ipv6_trusthost3 <IPv6 prefix> ... ipv6_trusthost10 <IPv6 prefix>	The admin user trusted host IPv6 address. Defaults = `ipv6_trusthost1: ::/0` for all others: `ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128` for none
log-viewer {none | read | read-write}	Set the Log View permissions. This command corresponds to the Log View option in the GUI. Controlled functions: Log View and all its operations Dependencies: `faz-status` must be set to `enable` in `system global`, `type` must be `system`
policy-ips-attrs {none | read | read-write}	Set the Policy IPS attributes configuration.
policy-objects {none | read | read-write}	Set the Policy & Objects permissions. Controlled functions: Policy & Objects pane Dependencies: `type` must be `system`
read-passwd {none | read | read-write}	Add the capability to view the authentication password in clear text to this profile. Dependencies: `type` must be `system`
report-viewer {none | read | read-write}	Set the Reports permissions. This command corresponds to the Reports option in the GUI. Controlled functions: Reports pane and all its operations Dependencies: `faz-status` must be set to `enable` in `system global`, `type` must be `system`

Variable	Description
rpc-permit {none | read | read-write}	Set the rpc-permission.
run-report {none | read | read-write}	Configure run reports permission for this profile.
scope (Not Applicable)	CLI command is not in use.
script-access {none | read | read-write}	Configure script access.
set-install-targets {none | read | read-write}	Configure installation targets permissions. This command corresponds to the Installation Targets option in policy packages in the GUI. It is a sub-setting of `policy-objects`. Controlled functions: Installation targets Dependencies: `type` must be `system`
super-user-profile {enable | disable}	Enable/disable the super user profile.
system-setting {none | read | read-write}	Configure System Settings permissions for this profile. This command corresponds to the System Settings option in the GUI. Controlled functions: System Settings pane, all the settings under system setting, and CLI access Dependencies: `type` must be `system`
term-access {none | read | read-write}	Set the terminal access permissions for this profile. This command corresponds to the Terminal Access option in the GUI. It is a sub-setting of `device-manager`. Controlled functions: Connect to the CLI via Telnet or SSH Dependencies: Depends on `device-config` option, `type` must be `system`
triage-events {none | read | read-write}	Set the triage events permissions for this profile.
trusthost1 <ip&netmask> trusthost2 <ip&netmask> trusthost2 <ip&netmask> ... trusthost10 <ip&netmask>	The admin user trusted host IP address. Defaults : `trusthost1: 0.0.0.0.0.0.0.0` for all others: `255.255.255.255.255.255.255.255` for none
type {restricted | system}	Enter the admin profile type: • `restricted`: Restricted admin profile • `system`: System admin profile (default)
update-incidents {none | read | read-write}	Create/update incidents.
vpn-manager {none | read | read-write}	Enter the level of access to VPN console configuration settings for this profile (default = none).

Variable	Description
	This command corresponds to the VPN Manager option in the GUI. It is a sub-setting of `policy-objects`. Controlled functions: VPN Console Dependencies: `type` must be `system`
web-filter {enable | disable}	Enable/disable Web Filter Profile permission for the restricted admin profile (default = disable). Dependencies: `type` must be `restricted`
write-passwd-access {all | specify-by-profile | specify-by-user}	Set the write password access mode. Only available for the default `Password_Change_User` profile. Admin users with this profile can only change admin password. • `all`: Can change password for all users (default). • `specify-by-profile`: Can change password for users with a profile included in the `write-passwd-profiles` profile list. • `specify-by-user`: Can change password for users included in the `write-passwd-user-list` user list.
write-passwd-profiles <profile list>	Enter the profile list. Use a space between each entry in the list; for example, `profile1profile2profile3`. Only available for the `Password_Change_User` when `write-passwd-access` is `specify-by-profile`.
write-passwd-user-list <user list>	Enter the user list. Use a space between each entry in the list; for example, `user1user2user3`. Only available for the `Password_Change_User` when `write-passwd-access` is `specify-by-profile`.
Variables for `config datamask-custom-fields` **subcommand**:	
<field>	Enter the custom field name.
field-category {alert | all | fortiview | log | euba}	Enter the field category (default = all).
field-status {enable | disable}	Enable/disable the field (default = enable).
field-type {email | ip | mac | string}	Enter the field type (default = string).

admin radius

Use this command to add, edit, and delete administration RADIUS servers.

Syntax

```
config system admin radius
   edit <server>
      set auth-type {any | chap | mschap2 | pap}
      set ca-cert <string>
      set client-cert <string>
```

```
        set message-authenticator {optional | require}
        set nas-ip <ipv4_address>
        set port <integer>
        set protocol {tls | udp}
        set secondary-secret <passwd>
        set secondary-server <string>
        set secret <passwd>
        set server <string>
    end
```

Variable	Description
<server>	Enter the name of the RADIUS server or enter a new name to create an entry (character limit = 63).
auth-type {any | chap | mschap2 | pap}	The authentication protocol the RADIUS server will use. • `any`: Use any supported authentication protocol (default). • `mschap2`: Microsoft Challenge Handshake Authentication Protocol version 2 (MS-CHAPv2). • `chap`: Challenge Handshake Authentication Protocol (CHAP) • `pap`: Password Authentication Protocol (PAP).
ca-cert <string>	Enter the CA of server certificate. This option is only available when the `protocol` is `tls`.
client-cert <string>	Enter the Client certificate. This option is only available when the `protocol` is `tls`.
message-authenticator {optional | require}	Set if the Message-Authenticator attribute is required or optional: • `optional`: Message-Authenticator attribute is optional (default). • `require`: Message-Authenticator attribute is required.
nas-ip <ipv4_address>	The network access server (NAS) IPv4 address and called station ID.
port <integer>	The RADIUS server port number (1 - 65535, default = 1812).
protocol {tls | udp}	Set the transport protocol, TLS over TCP (RadSec) or UDP (default = udp).
secondary-secret <passwd>	The password to access the RADIUS secondary-server (character limit = 64).
secondary-server <string>	The RADIUS secondary-server DNS resolvable domain name or IPv4 address.
secret <passwd>	The password to access the RADIUS server (character limit = 64).
server <string>	The RADIUS server DNS resolvable domain name or IPv4 address.

Example

This example shows how to add the RADIUS server `RAID1` at the IPv4 address `206.205.204.203` and set the shared secret as `R1a2D3i4U5s`.

```
config system admin radius
  edit RAID1
    set server 206.205.204.203
    set secret R1a2D3i4U5s
  end
```

admin setting

Use this command to configure system administration settings, including web administration ports, timeout, and language.

Syntax

```
config system admin setting
   set access-banner {enable | disable}
   set admin-httpd-keep-alive-timeout <integer>
   set admin-https-redirect {enable | disable}
   set admin-login-max <integer>
   set admin-scp {enable | disable}
   set admin_server_cert <admin_server_cert>
   set allow_register {enable | disable}
   set auth-addr <string>
   set auth-port <integer>
   set auto-update {enable | disable}
   set banner-message <string>
   set central-ftgd-local-cat-id {enable | disable}
   set chassis-mgmt {enable | disable}
   set chassis-update-interval <integer>
   set device_sync_status {enable | disable}
   set fgt-gui-proxy {enable | disable}
   set fgt-gui-proxy-port <integer>
   set firmware-upgrade-check {enable | disable}
   set fsw-ignore-platform-check {enable | disable}
   set gui-theme <theme>
   set http_port <integer>
   set https_port <integer>
   set idle_timeout <integer>
   set idle_timeout_api <integer>
   set idle_timeout_gui <integer>
   set idle_timeout_sso <integer>
   set install-ifpolicy-only {enable | disable}
   set mgmt-addr <string>
   set mgmt-fqdn <string>
   set objects-force-deletion {enable | disable}
   set offline_mode {enable | disable}
   set preferred-fgfm-intf <string>
   set register_passwd <passwd>
   set rtm-max-monitor-by-days <integer>
   set rtm-max-monitor-by-size <integer>
   set rtm-temp-file-limit <integer>
   set sdwan-monitor-history {enable | disable}
   set sdwan-skip-unmapped-input-device {enable | disable}
   set shell-access {enable | disable}
   set shell-password <passwd>
   set show-add-multiple {enable | disable}
   set show-adom-devman {enable | disable}
   set show-checkbox-in-table {enable | disable}
   set show-device-import-export {enable | disable}
   set show_automatic_script {enable | disable}
   set show-fct-manager {enable | disable}
   set show_grouping_script {enable | disable}
```

```
    set show_hostname {enable | disable}
    set show_schedule_script {enable | disable}
    set show_tcl_script {enable | disable}
    set traffic-shaping-history {enable | disable}
    set unreg_dev_opt {add_allow_service | add_no_service}
    set webadmin_language {auto_detect | english | french | japanese | korean |
         simplified_chinese | spanish | traditional_chinese}
end
```

Variable	Description
access-banner {enable | disable}	Enable/disable the access banner (default= disable).
admin-httpd-keep-alive-timeout <integer>	Set the HTTP keep-alive timeout (5 - 120 seconds, default = 5).
admin-https-redirect {enable | disable}	Enable/disable redirection of HTTP admin traffic to HTTPS (default= enable).
admin-login-max <integer>	Set the maximum number of admin users that be logged in at one time (1 - 256, default = 256).
admin-scp {enable | disable}	Enable/disable admin SCP (default = enable).
admin_server_cert <admin_ server_cert>	Enter the name of an https server certificate to use for secure connections (default = server.crt).
allow_register {enable | disable}	Enable/disable the ability for an unregistered device to be registered (default= disable).
auth-addr <string>	Enter the IP which is used by FortiGate to authorize FortiManager.
auth-port <integer>	Set the port which is used by FortiGate to authorize FortiManager (default = 443).
auto-update {enable | disable}	Enable/disable FortiGate automatic updates (default= enable).
banner-message <string>	Set the banner messages (character limit = 32768).
central-ftgd-local-cat-id {enable | disable}	Enable/disable central FortiGuard local category id management, and do not auto assign id during installation (default= disable).
chassis-mgmt {enable | disable}	Enable/disable chassis management (default= disable).
chassis-update-interval <integer>	Set the chassis background update interval, in minutes (4 - 1440, default = 15).
device_sync_status {enable | disable}	Enable/disable device synchronization status indication (default= enable).
fgt-gui-proxy {enable | disable}	Enable/disable FortiGate GUI proxy (default = enable).
fgt-gui-proxy-port <integer>	Enter the FortiGate GUI proxy port (default = 8082).
firmware-upgrade-check {enable | disable}	Enable/disable firmware upgrade check (default = enable).
fsw-ignore-platform-check {enable | disable}	Enable/disable FortiSwitch Manager switch platform support check (default = disable).

Variable	Description
gui-theme <theme>	Configure the GUI theme (default = jade).
http_port <integer>	Enter the HTTP port number for web administration (1 - 65535, default = 80).
https_port <integer>	Enter the HTTPS port number for web administration (1 - 65535, default = 443).
idle_timeout <integer>	Enter the idle timeout value, in seconds (60 - 28800, default = 900). The `idle_timeout_api`, `idle_timeout_gui`, and `idle_timeout_sso` settings control the idle timeout for API, GUI, and SSO. The `idle_timeout` setting controls all other idle timeout, including idle timeout for SSH and console.
idle_timeout_api <integer>	Enter the idle timeout for the API sessions, in seconds (1 - 28800, default = 900).
idle_timeout_gui <integer>	Enter the idle timeout for the GUI sessions, in seconds (60 - 28800, default = 900).
idle_timeout_sso <integer>	Enter the idle timeout for the SSO sessions, in seconds (60 - 28800, default = 900).
install-ifpolicy-only {enable | disable}	Enable/disable allowing only the interface policy to be installed (default = disable).
mgmt-addr <string>	FQDN/IPv4 of FortiManager used by FGFM. If the FortiManager is behind a NAT device, and a device is added in the FortiManager GUI, the FortiManager will not add its IP address to the FortiGate. Configure `mgmt-addr` with the fixed, public-facing IP address if you need FortiManager to configure the `set fmg <ip>` command on managed FortiGates.
mgmt-fqdn <string>	FQDN of FortiManager used by FGFM.
objects-force-deletion {enable | disable}	Enable/disable forced deletion of used objects (default = enable). For more information, see the FortiManager Administration Guide on the Fortinet Document Library.
offline_mode {enable | disable}	Enable/disable offline mode to shut down the protocol used to communicate with managed devices (default = disable).
preferred-fgfm-intf <string>	Preferred interface for FGFM connection.
register_passwd <passwd>	Enter the password to use when registering a device (character limit = 19).
rtm-max-monitor-by-days <integer>	Set the maximum real time monitor (sdwan, traffic shaping, etc) history by days (1 - 180, default = 180). For more information, see the FortiManager Administration Guide.
rtm-max-monitor-by-size <integer>	Set the maximum rtm monitor (sdwan, traffic shaping, etc) history by size in MB per device per data type (10 - 200000, default = 1000). For more information, see the FortiManager Administration Guide.
rtm-temp-file-limit <integer>	Set the real time monitor temp file limit by hours. Lowering value will reduce disk usage, but may cause data loss (1 - 120, default = 48).

Variable	Description
sdwan-monitor-history {enable | disable}	Enable/disable sdwan-monitor-history (default = disable).
sdwan-skip-unmapped-input-device {enable | disable}	Enable/disable skipping unmapped interface for SD-WAN/rule/input-device instead of report mapping error (default = disable).
shell-access {enable | disable}	Enable/disable shell access (default = disable).
shell-password <passwd>	Enter the password to use for shell access.
show-add-multiple {enable | disable}	Enable/disable show the add multiple button in the GUI (default = disable).
show-adom-devman {enable | disable}	Enable/disable device manager tools on the GUI (default = enable).
show-checkbox-in-table {enable | disable}	Show checkboxes in tables in the GUI (default = disable).
show-device-import-export {enable | disable}	Enable/disable import/export of ADOM, device, and group lists (default = disable).
show_automatic_script {enable | disable}	Enable/disable automatic script (default = disable).
show-fct-manager {enable | disable}	Enable/disable FCT manager (default = disable).  Although still available in FortiManager 7.4, this command has no impact on the GUI. This is because the FortiClient module requires ADOM version 6.0 or earlier, whereas FortiManager 7.4 only supports ADOM versions 6.2, 6.4, and 7.4.
show_grouping_script {enable | disable}	Enable/disable grouping script (default = enable).
show_hostname {enable | disable}	Enable/disable showing the hostname on the GUI login page (default = disable).
show_schedule_script {enable | disable}	Enable/disable schedule script (default = disable).
show_tcl_script {enable | disable}	Enable/disable TCL script (default = disable).
traffic-shaping-history {enable | disable}	Enable/disable traffic shaping history (default = disable).
unreg_dev_opt {add_allow_service | add_no_service}	Select action to take when an unregistered device connects to FortiManager: • `add_allow_service`: Add unregistered devices and allow service requests (default). • `add_no_service`: Add unregistered devices and deny service requests.

Variable	Description
webadmin_language {auto_detect | english | french | japanese | korean | simplified_chinese | spanish | traditional_chinese}	Select the language to be used for web administration: • `auto_detect`: Automatically detect language (default) • `english`: English • `french`: French • `japanese`: Japanese • `korean`: Korean • `simplified_chinese`: Simplified Chinese • `spanish`: Spanish • `traditional_chinese`: Traditional Chinese

admin tacacs

Use this command to add, edit, and delete administration TACACS+ servers.

Syntax

```
config system admin tacacs
   edit <server>
      set authen-type {ascii | auto |chap | mschap | pap}
      set authorization {enable | disable}
      set key <passwd>
      set port <integer>
      set secondary-key <passwd>
      set secondary-server <string>
      set server <string>
      set tertiary-key <passwd>
      set tertiary-server <string>
end
```

Variable	Description
<server>	Enter the name of the TACACS+ server or enter a new name to create an entry (character limit = 63).
authen-type {ascii | auto |chap | mschap | pap}	Choose which authentication type to use: • `ascii`: ASCII • `auto`: Uses PAP, MSCHAP, and CHAP (in that order) (default). • `chap`: Challenge Handshake Authentication Protocol (CHAP) • `mschap`: Microsoft Challenge Handshake Authentication Protocol (MS-CHAP) • `pap`: Password Authentication Protocol (PAP).
authorization {enable | disable}	Enable/disable TACACS+ authorization (default = disable).
key <passwd>	Key to access the server (character limit = 128).
port <integer>	Port number of the TACACS+ server (1 - 65535, default = 49).

Variable	Description
secondary-key <passwd>	Key to access the secondary server (character limit = 128).
secondary-server <string>	Secondary server domain name or IPv4 address.
server <string>	The server domain name or IPv4 address.
tertiary-key <passwd>	Key to access the tertiary server (character limit = 128).
tertiary-server <string>	Tertiary server domain name or IPv4 address.

Example

This example shows how to add the TACACS+ server `TAC1` at the IPv4 address `206.205.204.203` and set the key as `R1a2D3i4U5s`.

```
config system admin tacacs
   edit TAC1
      set server 206.205.204.203
      set key R1a2D3i4U5s
   end
```

admin user

Use this command to add, edit, and delete administrator accounts.

You must use a super user administrator account to add, edit, or delete administrator accounts and control their permission levels. Each administrator account must include a minimum of an access profile. The access profile list is ordered alphabetically, capitals first. If custom profiles are defined, it may change the default profile from Restricted_ User. You cannot delete the admin administrator account. You cannot delete an administrator account if that user is logged on.

You can create meta-data fields for administrator accounts. These objects must be created using the FortiManager GUI. The only information you can add to the object is the value of the field (pre-determined text/numbers). For more information, see *System Settings* in the FortiManager Administration Guide.

Syntax

```
config system admin user
   edit <name_str>
      set login-max <integer>
      set password <passwd>
      set change-password {enable | disable}
      set th-from-profile <integer>
      set th6-from-profile <integer>
      set trusthost1 <ipv4_mask>
      set trusthost2 <ipv4_mask>
      set trusthost3 <ipv4_mask>
      ...
      set trusthost10 <ipv4_mask>
```

```
set ipv6_trusthost1 <ipv6_mask>
set ipv6_trusthost2 <ipv6_mask>
set ipv6_trusthost3 <ipv6_mask>
...
set ipv6_trusthost10 <ipv6_mask>
set profileid <profile-name>
set adom <adom_name(s)>
set adom-access {all | exclude | specify}
set dev-group <group-name>
set web-filter <Web Filter profile name>
set ips-filter <IPS Sensor name>
set app-filter <Application Sensor name>
set policy-package {<adom name>: <policy package id> <adom policy folder name>/
     <package name> | all_policy_packages}
set description <string>
set user_type {group | ldap | local | pki-auth | radius | tacacs-plus}
set group <string>
set ldap-server <string>
set radius_server <string>
set tacacs-plus-server <string>
set ssh-public-key1 <key-type> <key-value>
set ssh-public-key2 <key-type> <key-value>
set ssh-public-key3 <key-type> <key-value>
set avatar <string>
set wildcard {enable | disable}
set ext-auth-accprofile-override {enable | disable}
set ext-auth-adom-override {enable | disable}
set ext-auth-group-match <string>
set password-expire <yyyy-mm-dd>
set force-password-change {enable | disable}
set fingerprint <string>
set subject <string>
set ca <string>
set cors-allow-origin <string>
set two-factor-auth {disable | ftc-email | ftc-ftm | ftc-sms}
set rpc-permit {none | read-only | read-write}
set use-global-theme {enable | disable}
set user-theme {astronomy | autumn | binary-tunnel | blue-sea | calla-lily | canyon
     | cat | cave | circuit-board | contrast-dark | dark-matter | fish | forest |
     graphite | jade | mariner | mars | mountain | northern-light | panda | penguin
     | spring | summer | technology | twilight | winter | zebra}
set last-name <string>
set first-name <string>
set email-address <string>
set phone-number <string>
set mobile-number <string>
set pager-number <string>
config meta-data
   edit <fieldname>
      set fieldlength
      set fieldvalue <string>
      set importance
      set status
   end
config dashboard-tabs
   edit tabid <integer>
      set name <string>
   end
```

```
        config dashboard
           edit moduleid
              set name <string>
              set column <column_pos>
              set diskio-content-type
              set diskio-period {1hour | 24hour | 8hour}
              set refresh-inverval <integer>
              set status {close | open}
              set tabid <integer>
              set widget-type <string>
              set log-rate-type {device | log}
              set log-rate-topn {1 | 2 | 3 | 4 | 5}
              set log-rate-period {1hour | 2min | 6hours}
              set res-view-type {history | real-time}
              set res-period {10min | day | hour}
              set res-cpu-display {average | each}
              set num-entries <integer>
              set time-period {1hour | 24hour | 8hour}
           end
end
```

Variable	Description
<name_string>	Enter the name of the admin user or enter a new name to create a new user (character limit = 35).
login-max <integer>	Set the maximum number of login sessions for this user (default = 32).
password <passwd>	Enter a password for the administrator account (character limit = 128). For improved security, the password should be at least 6 characters long. This variable is available only if `user_type` is `local`.
change-password {enable | disable}	Enable/disable allowing restricted users to change their password (default = disable).
th-from-profile <integer>	
th6-from-profile <integer>	
trusthost1 <ipv4_mask> trusthost2 <ipv4_mask> trusthost3 <ipv4_mask> ... trusthost10 <ipv4_mask>	Optionally, type the trusted host IPv4 address and network mask from which the administrator can log in to the FortiManager system. You can specify up to ten trusted hosts. Setting trusted hosts for all of your administrators can enhance the security of your system. Defaults: `trusthost1`: `0.0.0.0 0.0.0.0` for all others: `255.255.255.255 255.255.255.255` for none
ipv6_trusthost1 <ipv6_mask> ipv6_trusthost2 <ipv6_mask> ipv6_trusthost3 <ipv6_mask> ... ipv6_trusthost10 <ipv6_mask>	Optionally, type the trusted host IPv6 address from which the administrator can log in to the FortiManager system. You can specify up to ten trusted hosts. Setting trusted hosts for all of your administrators can enhance the security of your system. Defaults: `ipv6_trusthost1`: `::/0` for all others: `ffff:ffff:ffff:ffff:ffff:ffff:ffff:ffff/128` for none

Variable	Description
profileid <profile-name>	Enter the name of the access profile to assign to this administrator account (character limit = 35, default = Restricted_User). Access profiles control administrator access to FortiManager features.
adom <adom_name(s)>	Enter the name(s) of the ADOM(s) the administrator belongs to. Any configuration of ADOMs takes place via the FortiManager GUI.
adom-access {all | exclude | specify}	Set all/specify/exclude ADOM access mode (default = specify).
dev-group <group-name>	Enter the device group that the admin use can access. This option can only be used for administrators with access to only one ADOM.
web-filter <Web Filter profile name>	Enter the Web Filter profile to associate with the restricted admin profile. Dependencies: admin user must be associated with a restricted admin profile.
ips-filter <IPS Sensor name>	Enter the IPS Sensor to associate with the restricted admin profile. Dependencies: The admin user must be associated with a restricted admin profile.
app-filter <Application Sensor name>	Enter the Application Sensor to associate with the restricted admin profile. Dependencies: The admin user must be associated with a restricted admin profile.
policy-package {<adom name>: <policy package id> <adom policy folder name>/ <package name> | all_policy_ packages}	Policy package access.
description <string>	Enter a description for this administrator account (character limit = 127). Enclose the description in quotes if it contains spaces.
user_type {group | ldap | local | pki-auth | radius | tacacs-plus}	Select the administrator type: • `group`: The administratoris a member of a administrator group. • `ldap`: An LDAP server verifies the administrator's password. • `local`: The FortiManager system verifies the administrator's password (default). • `pki-auth`: The administrator uses PKI. • `radius`: A RADIUS server verifies the administrator's password. • `tacacs-plus`: A TACACS+ server verifies the administrator's password.
group <string>	Enter the group name. This option is only available when `user_type` is `group`.
ldap-server <string>	Enter the LDAP server name if the user type is set to LDAP. This option is only available when `user_type` is `ldap`.
radius_server <string>	Enter the RADIUS server name if the user type is set t o RADIUS. This option is only available when `user_type` is `radius`.

Variable	Description
tacacs-plus-server <string>	Enter the TACACS+ server name if the user type is set to TACACS+. This option is only available when `user_type` is `tacacs-plus`.
ssh-public-key1 <key-type> <key-value> ssh-public-key2 <key-type> <key-value> ssh-public-key3 <key-type> <key-value>	You can specify the public keys of up to three SSH clients. These clients are authenticated without being asked for the administrator password. You must create the public-private key pair in the SSH client application. `<key type>` is `ssh-dss` for a DSA key, `ssh-rsa` for an RSA key. `<key-value>` is the public key string of the SSH client.
avatar <string>	Image file for the administrator's avatar (maximum 4K base64 encode).
wildcard {enable | disable}	Enable/disable wildcard remote authentication (default = disable).
ext-auth-accprofile-override {enable | disable}	Enable/disable allowing the use of the access profile provided by the remote authentication server (default = disable).
ext-auth-adom-override {enable | disable}	Enable/disable allowing the use of the ADOM provided by the remote authentication server (default = disable). In order to support vendor specific attributes (VSA), the authentication server requires a dictionary to define which VSAs to support. The Fortinet RADIUS vendor ID is `12365`. The `Fortinet-Vdom-Name` attribute is used by this command.
ext-auth-group-match <string>	Only admin users that belong to this group are allowed to log in.
password-expire <yyyy-mm-dd>	When enforcing the password policy, enter the date that the current password will expire.
force-password-change {enable | disable}	Enable/disable force password change on next log in.
fingerprint <string>	PKI user certificate fingerprint based on MD5, SHA-1, or SHA-256 hash function. Format the fingerprint by removing spaces or replacing them with ':'. For example, `0123abcd`... or `01:23:ab:cd`.... This command is available when an API or PKI administrator account is configured.
subject <string>	PKI user certificate name constraints. This command is available when an API or PKI administrator account is configured.
ca <string>	PKI user certificate CA (CA name in local). This command is available when an API or PKI administrator account is configured.
cors-allow-origin <string>	Value for access-control-allow-origin on API responses (default = null). This command is available when an API administrator account is configured.
two-factor-auth {disable | ftc-email | ftc-ftm | ftc-sms}	Enable/disable two-factor authentication (default = disable). You can enable for FortiToken Cloud email, mobile, or SMS.

Variable	Description
	This command is available when a PKI administrator account is configured.
rpc-permit {none | read-only | read-write}	Set the permission level for log in via Remote Procedure Call (RPC) (default = none).
use-global-theme {enable | disable}	Enable/disble global theme for administration GUI (default = enable).
user-theme {astronomy | autumn | binary-tunnel | blue-sea | calla-lily | canyon | cat | cave | circuit-board | contrast-dark | dark-matter | fish | forest | graphite | jade | mariner | mars | mountain | northern-light | panda | penguin | spring | summer | technology | twilight | winter | zebra}	Set the color scheme to use for the admin user GUI (default = jade): • `astronomy`: Astronomy • `autumn`: Autumn • `binary-tunnel`: Binary Tunnel • `blue-sea`: Blue Sea • `calla-lily`: Calla Lily • `canyon`: Canyon • `cat`: Cat • `cave`: Cave • `circuit-board`: Circuit Board • `contrast-dark`: High Contrast Dark • `dark-matter`: Dark Matter • `fish`: Fish • `forest`: Forest • `graphite`: Graphite • `jade`: Jade • `mariner`: Mariner • `mars`: Mars • `mountain`: Mountain • `neutrino`: Neutrino • `northern-light`: Northern Light • `panda`: Panda • `penguin`: Penguin • `spring`: Spring • `summer`: Summer • `technology`: Technology • `twilight`: Twilight • `winter`: Winter • `zebra`: Zebra This command is available when `use-global-theme` is disabled.
last-name <string>	Administrator's last name (character limit = 63).
first-name <string>	Administrator's first name (character limit = 63).
email-address <string>	Administrator's email address.

Variable	Description
phone-number <string>	Administrator's phone number.
mobile-number <string>	Administrator's mobile phone number.
pager-number <string>	Administrator's pager number.
Variables for `config meta-data` **subcommand**: This subcommand can only change the value of an existing field. To create a new metadata field, use the `config system metadata` command.	
fieldname	The label/name of the field (read-only, default = 50). Enclose the name in quotes if it contains spaces.
fieldlength	The maximum number of characters allowed for this field (read-only, default = 50).
fieldvalue <string>	Enter a pre-determined value for the field. This is the only value that can be changed with the `config meta-data` subcommand (character limit = 255).
importance	Indicates whether the field is compulsory (`required`) or optional (`optional`) (read-only, default = optional).
status	The status of the field (read-only, default = enable).
Variables for `config dashboard-tabs` **subcommand**:	
tabid <integer>	Tab ID.
name <string>	Tab name.
Variables for `config dashboard` **subcommand**:	
moduleid	Widget ID.
name <string>	Widget name (character limit = 63).
column <column_pos>	Widget column ID (default = 0).
diskio-content-type {blks | iops | util}	Set the Disk I/O Monitor widget's chart type. • `blks`: the amount of data of I/O requests. • `iops`: the number of I/O requests. • `util`: bandwidth utilization (default).
diskio-period {1hour | 24hour | 8hour}	Set the Disk I/O Monitor widget's data period (default = 1hour).
refresh-inverval <integer>	Widget refresh interval (default = 300).
status {close | open}	Widget opened/closed status (default = open).
tabid <integer>	ID of the tab where the widget is displayed (default = 0).
widget-type <string>	Widget type: • `alert`: Alert Message Console • `devsummary`: Device Summary • `disk-io`: Disk I/O

Variable	Description
	• `jsconsole`: CLI Console • `licinfo`: License Information • `log-rcvd-fwd`Receive Rate v. Forwarding Rate • `logdb-lag`: Log Insert Lag Time • `logdb-perf`: Insert Rate vs Receive Rate • `logrecv`: Logs/Data Received (this widget has been deprecated) • `raid`: Disk Monitor • `rpteng`: Report Engine (this widget has been deprecated) • `statistics`: Statistics (this widget has been deprecated) • `sysinfo`: System Information • `sysop`: Unit Operation • `sysres`: System Resources • `top-lograte`: Log Receive Monitor
log-rate-type {device | log}	Log receive monitor widget's statistics breakdown options (default = device).
log-rate-topn {1 | 2 | 3 | 4 | 5}	Log receive monitor widgets's number of top items to display (default = 5).
log-rate-period {1hour | 2min | 6hours}	Log receive monitor widget's data period (default = 2min).
res-view-type {history | real-time}	Widget's data view type (default = history).
res-period {10min | day | hour}	Widget data period: • `10min`: Last 10 minutes (default). • `day`: Last day. • `hour`: Last hour.
res-cpu-display {average | each}	Widget CPU display type: • `average`: Average usage of CPU (default). • `each`: Each usage of CPU.
num-entries <integer>	Number of entries (default = 10).
time-period {1hour | 24hour | 8hour}	Set the Log Database Monitor widget's data period (default = 1hour).

Using trusted hosts

Setting trusted hosts for all of your administrators increases the security of your network by further restricting administrative access. In addition to knowing the password, an administrator must connect only through the subnet or subnets you specify. You can even restrict an administrator to a single IPv4 address if you define only one trusted host IPv4 address with a netmask of 255.255.255.255.

When you set trusted hosts for all administrators, the FortiManager system does not respond to administrative access attempts from any other hosts. This provides the highest security. If you leave even one administrator unrestricted, the unit accepts administrative access attempts on any interface that has administrative access enabled, potentially exposing the unit to attempts to gain unauthorized access.

The trusted hosts you define apply both to the GUI and to the CLI when accessed through SSH. CLI access through the console connector is not affected.

Example

Use the following commands to add a new administrator account named `admin_2` with the password set to `p8ssw0rd` and the `Super_User` access profile. Administrators that log in to this account will have administrator access to the FortiManager system from any IPv4 address.

```
config system admin user
   edit admin_2
      set description "Backup administrator"
      set password p8ssw0rd
      set profileid Super_User
   end
```

alert-console

Use this command to configure the alert console options. The alert console appears on the dashboard in the GUI.

Syntax

```
config system alert-console
   set period {1 | 2 | 3 | 4 | 5 | 6 | 7}
   set severity-level {information | notify | warning | error | critical | alert |
        emergency}
end
```

Variable	Description
period {1 | 2 | 3 | 4 | 5 | 6 | 7}	Enter the number of days to keep the alert console alerts (default = 7).
severity-level {information | notify | warning | error | critical | alert | emergency}	Enter the minimum severity level to display on the alert console on the dashboard: • `emergency`: The unit is unusable (default). • `alert`: Immediate action is required. • `critical`: Functionality is affected. • `error`: Functionality is probably affected. • `warning`: Functionality might be affected. • `notification`: Information about normal events. • `information`: General information about unit operations.

Example

This example sets the alert console message display to warning for a duration of three days.

```
config system alert-console
   set period 3
   set severity-level warning
end
```

alertemail

Use this command to configure alert email settings for your FortiManager unit.

All variables are required when `authentication` is enabled.

Syntax

```
config system alertemail
   set authentication {enable | disable}
   set fromaddress <email-address_string>
   set fromname <string>
   set smtppassword <passwd>
   set smtpport <integer>
   set smtpserver {<ipv4_address>|<fqdn_string>}
   set smtpuser <username>
end
```

Variable	Description
authentication {enable | disable}	Enable/disable alert email authentication (default = enable).
fromaddress <email-address_string>	The email address the alert message is from. This is a required variable.
fromname <string>	The SMTP name associated with the email address. Enclose the name in quotes if it contains spaces.
smtppassword <passwd>	Set the SMTP server password (character limit = 39).
smtpport <integer>	The SMTP server port (1 - 65535, default = 25).
smtpserver {<ipv4_address>|<fqdn_string>}	The SMTP server address, either a DNS resolvable host name or an IPv4 address.
smtpuser <username>	Set the SMTP server username (character limit= 63).

Example

Here is an example of configuring `alertemail`. Enable authentication, the alert is set in Mr. Customer's name and from his email address, the SMTP server port is the default port(25), and the SMTP server is at IPv4 address of 192.168.10.10.

```
config system alertemail
   set authentication enable
   set fromaddress customer@example.com
   set fromname "Mr. Customer"
   set smtpport 25
   set smtpserver 192.168.10.10
end
```

auto-delete

Use this command to automatically delete policies for logs, reports, and archived and quarantined files.

Syntax

```
config system auto-delete
   config dlp-files-auto-deletion
      set retention {days | weeks | months}
      set runat <integer>
      set status {enable | disable}
      set value <integer>
   end
   config quarantine-files-auto-deletion
      set retention {days | weeks | months}
      set runat <integer>
      set status {enable | disable}
      set value <integer>
   end
   config log-auto-deletion
      set retention {days | weeks | months}
      set runat <integer>
      set status {enable | disable}
      set value <integer>
   end
   config report-auto-deletion
      set retention {days | weeks | months}
      set runat <integer>
      set status {enable | disable}
      set value <integer>
   end
end
```

Variable	Description
dlp-files-auto-deletion	Automatic deletion policy for DLP archives.
quarantine-files-auto-deletion	Automatic deletion policy for quarantined files.
log-auto-deletion	Automatic deletion policy for device logs.
report-auto-deletion	Automatic deletion policy for reports.
retention {days | weeks | months}	Automatic deletion in days, weeks, or months (default = days).
runat <integer>	Automatic deletion run at (0 - 23) o'clock (default = 0).
status {enable | disable}	Enable/disable automatic deletion (default = disable).
value <integer>	Automatic deletion in x days, weeks, or months (default = 0).

backup all-settings

Use this command to set or check the settings for scheduled backups.

An MD5 checksum is automatically generated in the event log when backing up the configuration. You can verify a backup by comparing the checksum in the log entry with that of the backup file.

It is mandatory to set a password for the backup file. See `set crptpasswd <passwd>` below.

Syntax

```
config system backup all-settings
   set status {enable | disable}
   set server {<ipv4_address>|<fqdn_str>}
   set user <username>
   set directory <string>
   set week_days {monday tuesday wednesday thursday friday saturday sunday}
   set time <hh:mm:ss>
   set protocol {ftp | scp | sftp}
   set passwd <passwd>
   set cert <certificate_name>
   set crptpasswd <passwd>
end
```

Variable	Description
status {enable | disable}	Enable/disable scheduled backups (default = disable).
server {<ipv4_address>|<fqdn_str>}	Enter the IPv4 address or DNS resolvable host name of the backup server.
user <username>	Enter the user account name for the backup server (character limit = 63).
directory <string>	Enter the name of the directory on the backup server in which to save the backup file.
week_days {monday tuesday wednesday thursday friday saturday sunday}	Enter the days of the week on which to perform backups. You may enter multiple days.
time <hh:mm:ss>	Enter the time of day to perform the backup. Time is required in the form <hh:mm:ss>.
protocol {ftp | scp | sftp}	Enter the transfer protocol (default = sftp).
passwd <passwd>	Enter the password for the backup server (character limit = 127).
cert <certificate_name>	SSH certificate for authentication. Only available if the protocol is set to scp. The SSH certificate object must already be configured. See certificate ssh on page 78.
crptpasswd <passwd>	Enter a password to protect backup content (character limit = 63).

certificate

Use the following commands to configure certificate related settings.

certificate ca

Use this command to install Certificate Authority (CA) root certificates.

When a CA processes your Certificate Signing Request (CSR), it sends you the CA certificate, the signed local certificate and the Certificate Revocation List (CRL).

The process for obtaining and installing certificates is as follows:

1. Use the `execute certificate local generate` command to generate a CSR.
2. Send the CSR to a CA. The CA sends you the CA certificate, the signed local certificate and the CRL.
3. Use the `system certificate local` command to install the signed local certificate.
4. Use the `system certificate ca` command to install the CA certificate. Depending on your terminal software, you can copy the certificate and paste it into the command.

Syntax

```
config system certificate ca
   edit <ca_name>
      set ca <certificate>
      set comment <string>
   end
```

To view all of the information about the certificate, use the `get` command:

```
get system certificate ca <ca_name>
```

Variable	Description
<ca_name>	Enter a name for the CA certificate (character limit = 35).
ca <certificate>	Enter or retrieve the CA certificate in PEM format.
comment <string>	Optionally, enter a descriptive comment (character limit = 127).

certificate crl

Use this command to configure CRLs.

Syntax

```
config system certificate crl
   edit <name>
      set crl <crl>
      set comment <string>
   end
```

Variable	Description
<name>	Enter a name for the CRL (character limit = 35).
crl <crl>	Enter or retrieve the CRL in PEM format.
comment <string>	Optionally, enter a descriptive comment for this CRL (character limit = 127).

certificate local

Use this command to install local certificates. When a CA processes your CSR, it sends you the CA certificate, the signed local certificate and the CRL.

The process for obtaining and installing certificates is as follows:

1. Use the `execute certificate local generate` command to generate a CSR.
2. Send the CSR to a CA. The CA sends you the CA certificate, the signed local certificate and the CRL.
3. Use the `system certificate local` command to install the signed local certificate.
4. Use the `system certificate ca` command to install the CA certificate. Depending on your terminal software, you can copy the certificate and paste it into the command.

Syntax

```
config system certificate local
   edit <cert_name>
      set password <passwd>
      set comment <string>
      set certificate <certificate_PEM>
      set private-key <prkey>
      set csr <csr_PEM>
   end
```

Variable	Description
<cert_name>	Enter the local certificate name (character limit = 35).
password <passwd>	Enter the local certificate password (character limit = 67).
comment <string>	Enter any relevant information about the certificate (character limit = 127).
certificate <certificate_PEM>	Enter the signed local certificate in PEM format.
You should not modify the following variables if you generated the CSR on this unit:	
private-key <prkey>	The private key in PEM format.
csr <csr_PEM>	The CSR in PEM format.

certificate oftp

Use this command to install OFTP certificates and keys.

Syntax

```
config system certificate oftp
      set certificate <certificate>
      set comment <string>
      set local {Fortinet_Local | Fortinet_Local2}
      set mode {custom | default | local}
      set password <string>
      set private-key <key>
   end
```

Variable	Description
certificate <certificate>	PEM format certificate.
comment <string>	OFTP certificate comment (character limit = 127).
local {Fortinet_Local | Fortinet_Local2}	Choose from the two available local certificates.
mode {custom | default | local}	Mode of certificates used by OFTPD (default = default): • `custom`: Use a custom certificate. • `default`: Default mode. • `local`: Use a local certificate.
password <string>	Password for encrypted 'private-key', unset for non-encrypted.
private-key <key>	PEM format private key.

certificate remote

Use this command to install remote certificates

Syntax

```
config system certificate remote
   edit <cert_name>
      set cert <certificate>
      set comment <string>
   next
end
```

Variable	Description
<cert_name>	Enter the remote certificate name (character limit = 35).
cert <certificate>	The remote certificate.
comment <string>	Optionally, enter a descriptive comment (character limit = 127).

certificate ssh

Use this command to install SSH certificates and keys.

The process for obtaining and installing certificates is as follows:

1. Use the `execute certificate local generate` command to generate a CSR.
2. Send the CSR to a CA. The CA sends you the CA certificate, the signed local certificate and the CRL.
3. Use the `system certificate local` command to install the signed local certificate.
4. Use the `system certificate ca` command to install the CA certificate.
5. Use the `system certificate SSH` command to install the SSH certificate. Depending on your terminal software, you can copy the certificate and paste it into the command.

Syntax

```
config system certificate ssh
   edit <name>
      set comment <comment_text>
      set certificate <certificate>
      set private-key <key>
   end
```

Variable	Description
<name>	Enter the SSH certificate name (character limit = 63).
comment <comment_text>	Enter any relevant information about the certificate (character limit = 127).
certificate <certificate>	Enter the signed SSH certificate in PEM format.
You should not modify the following variables if you generated the CSR on this unit.	
private-key <key>	The private key in PEM format.

connector

Use this command to configure connector related settings.

Syntax

```
config system connector
   set cloud-orchest-refresh-interval <integer>
   set conn-refresh-interval <integer>
   set conn-ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 |
        tlsv1.2 | tlsv1.3}
   set faznotify-msg-queue-max <integer>
   set faznotify-msg-timeout <integer>
   set fsso-refresh-interval <integer>
   set fsso-sess-timeout <integer>
   set px-svr-timeout <integer>
```

```
end
```

Variable	Description
cloud-orchest-refresh-interval <integer>	Set the Cloud Orchestration refresh interval, in seconds (300 - 1800, default = 300).
conn-refresh-interval <integer>	Set the connector refresh interval, in seconds (60 - 1800, default = 300). This variable is used for the request-response connectors, such as the ClearPass, VMware NSX-T, and FortiClient EMS connectors. It does not apply to connectors that keep a constant connection, such as the Cisco pxGrid connector.
conn-ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocol version for connector.
faznotify-msg-queue-max <integer>	Set the faznotify max queued message per connector (10 - 10000, default = 1000).
faznotify-msg-timeout <integer>	Set the faznotify message timeout (1 - 720 hours, default = 72).
fsso-refresh-interval <integer>	Set the FSSO refresh interval, in seconds (60 - 1800, default = 180).
fsso-sess-timeout <integer>	Set the FSSO session timeout, in seconds (30 - 600, default = 300).
px-svr-timeout <integer>	Set the pxGrid session timeout, in seconds (30 - 600, default = 300). If connecting to the pxGrid server without response for the set number of seconds (<integer>), it will trigger a timeout.

csf

Use this command to add this device to a Security Fabric or set up a new Security Fabric on this device.

This command is used to establish a fabric connection with FortiAnalyzer. Once the `status` is enabled, you must configure the following settings to allow the fabric connection:

```
config system csf
   set accept-auth-by-cert enable
   set downstream-access enable
end
```

For more information about establishing this connection to FortiAnalyzer, see the FortiManager Administration Guide.

Syntax

```
config system csf
   set accept-auth-by-cert {enable | disable}
   set authorization-request-type {certificate | serial}
   set certificate <string>
   set downstream-access {enable | disable}
   set downstream-accprofile <string>
   set fabric-workers <integer>
   set ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 |
        tlsv1.3}
   set status {enable | disable}
```

```
    set upstream <string>
    set upstream-port <integer>
    config trusted-list
       edit <name>
          set action {accept | deny}
          set authorization-type {certificate | serial}
          set certificate <string>
          set ha-members <ha members>
          set index <integer>
          set serial <string>
    end
end
```

Variable	Description
accept-auth-by-cert {enable | disable}	Accept connections with unknown certificates and ask admin for approval (default = enable).
authorization-request-type {certificate | serial}	Authorization request type (default = certificate).
certificate <string>	Certificate (default = Fortinet_Local).
downstream-access {enable | disable}	Enable/disable downstream device access to this device's configuration and data (default = disable).
downstream-accprofile <string>	Default access profile for requests from downstream devices. This option is only available when `downstream-access` is set to `enable`.
fabric-workers <integer>	Number of worker processes for Security Fabric daemon (default = 2).
status {enable | disable}	Enable/disable Security Fabric (default = disable).
upstream <string>	IP/FQDN of the FortiGate upstream from this FortiGate in the Security Fabric.
upstream-port <integer>	The port number to use to communicate with the FortiGate upstream from this FortiGate in the Security Fabric (default = 8013).
Variables for `config trusted-list` **subcommand**:	
<name>	Name.
action {accept | deny}	Security fabric authorization action (default = accept).
authorization-type {certificate | serial}	Authorization type (default = serial).
certificate <string>	Certificate.
ha-members <ha members>	HA members.
index <integer>	Index of the downstream in tree (default = 0).
serial <string>	Serial.
ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocol version for upstream and downstream connections. This option is only available when `status` is set to `enable`.

dm

Use this command to configure Deployment Manager (DM) settings.

Syntax

```
config system dm
   set concurrent-install-image-limit <integer>
   set concurrent-install-limit <integer>
   set concurrent-install-script-limit <integer>
   set conf-merge-after-script {enable | disable}
   set discover-timeout <integer>
   set dpm-logsize <integer>
   set fgfm-auto-retrieve-timeout <integer>
   set fgfm-install-refresh-count <integer>
   set fgfm-sock-timeout <integer>
   set fgfm_keepalive_itvl <integer>
   set force-remote-diff {enable | disable}
   set fortiap-refresh-cnt <integer>
   set fortiap-refresh-itvl <integer>
   set fortiext-refresh-cnt <integer>
   set handle-nonhasync-config {enable | disable}
   set install-fds-timeout <integer>
   set install-image-timeout <integer>
   set install-tunnel-retry-itvl <integer>
   set log-autoupdate {enable | disable}
   set max-revs <integer>
   set nr-retry <integer>
   set retry {enable | disable}
   set retry-intvl <integer>
   set rollback-allow-reboot {enable | disable}
   set script-logsize <integer>
   set skip-scep-check {enable | disable}
   set skip-tunnel-fcp-req {enable | disable}
   set verify-install {enable | disable | optimal}
end
```

Variable	Description
concurrent-install-image-limit <integer>	The maximum number of concurrent installs (1 - 1000, default = 500).
concurrent-install-limit <integer>	The maximum number of concurrent installs (5 - 2000, default = 480).
concurrent-install-script-limit <integer>	The maximum number of concurrent install scripts (5 - 2000, default = 480).
conf-merge-after-script {enable | disable}	Merge config after running the script on the remote device, instead of a full retrieve (default = disable).
discover-timeout <integer>	Check connection timeout when discovering a device (3 - 15, default = 6).
dpm-logsize <integer>	The maximum DPM log size per device, in kilobytes (1 - 10000, default = 10000).

Variable	Description
fgfm-auto-retrieve-timeout <integer>	The maximum waiting time for auto retrieve in seconds (60 - 10800, default = 1800).
fgfm-install-refresh-count <integer>	The maximum FGFM install refresh attempts (default = 10).
fgfm-sock-timeout <integer>	The maximum FGFM communication socket idle time, in seconds (90 - 1800, default = 360).
fgfm_keepalive_itvl <integer>	The FortiManager/FortiGate communication protocol keep alive interval, in seconds (30 - 600, default = 120).
force-remote-diff {enable | disable}	Enable/disable always using remote diff when installing (default = disable).
fortiap-refresh-cnt <integer>	Maximum auto refresh FortiAP number each time (1 - 10000, default = 500).
fortiap-refresh-itvl <integer>	Auto refresh FortiAP status interval, in minutes (1 - 1440, 0 to disable, default = 10).
fortiext-refresh-cnt <integer>	Maximum device number for FortiExtender auto refresh (1 - 10000, default = 50).
handle-nonhasync-config {enable | disable}	Enable/disable nonhasync config handling (default = disable). • `Disable`: Ignores and skips any `nonhasync` configuration installation to the remote device (FortiGate). • `Enable`: Installs `nonhasync` configurations to the remote device (FortiGate). Allows updates to the nonhasync configurations and cluster member configurations. FortiGate configurations identified as `nonhasync` vary by platform and model and include HA configurations, `vdom-exception` configurations, and per-platform objects.
install-fds-timeout <integer>	Maximum waiting time for fgt update during install, in minutes (1-30, default 10).
install-image-timeout <integer>	Maximum waiting time for image transfer and device upgrade, in seconds (600 - 7200, default = 3600).
install-tunnel-retry-itvl <integer>	Time to re-establish tunnel during install, in seconds (10 - 60, default = 60).
log-autoupdate {enable | disable}	Enable/disable autoupdate debug logging (default = disable).
max-revs <integer>	The maximum number of revisions saved (1 - 250, default = 100).
nr-retry <integer>	The number of times the FortiManager unit will retry (default = 1).
retry {enable | disable}	Enable/disable configuration installation retries (default = enable).
retry-intvl <integer>	The interval between attempting another configuration installation following a failed attempt (default = 15).
rollback-allow-reboot {enable | disable}	Enable/disable allowing a FortiGate unit to reboot when installing a script or configuration (default = disable).
script-logsize <integer>	Enter the maximum script log size per device, in kilobytes (1 - 10000, default = 100).

Variable	Description
skip-scep-check {enable | disable}	Enable/disable installing scep related objects even if the scep URL is configured (default = disable).
skip-tunnel-fcp-req {enable | disable}	Enable/disable skipping the FCP request sent from an FGFM tunnel (default = enable).
verify-install {enable | disable | optimal}	Enable/disable verify install against remote configuration: • `disable`: Disable. • `enable`: Always verify installation (default). • `optimal`: Verify installation for command errors.

Example

This example shows how to set up configuration installations. It shows how to set 5 attempts to install a configuration on a FortiGate device, waiting 30 seconds between attempts.

```
config system dm
   set retry enable
   set nr-retry 5
   set retry-intvl 30
end
```

dns

Use these commands to set the DNS server addresses. Several FortiManager functions, including sending alert email, use DNS. You can configure both IPv4 and IPv6 DNS server addresses.

Syntax

```
config system dns
   set primary <ipv4_address>
   set secondary <ipv4_address>
   set ip6-primary <ipv6_address>
   set ip6-secondary <ipv6_address>
end
```

Variable	Description
primary <ipv4_address>	Enter the primary DNS server IPv4 address.
secondary <ipv4_address>	Enter the secondary DNS IPv4 server address.
ip6-primary <ipv6_address>	Enter the primary DNS server IPv6 address.
ip6-secondary <ipv6_address>	Enter the secondary DNS IPv6 server address.

Example

This example shows how to set the primary FortiManager DNS server IPv4 address to `172.20.120.99` and the secondary FortiManager DNS server IPv4 address to `192.168.1.199`.

```
config system dns
   set primary 172.20.120.99
   set secondary 192.168.1.199
end
```

fips

Use this command to set the Federal Information Processing Standards (FIPS) status. FIPS mode is an enhanced security option for some FortiManager models. Installation of FIPS firmware is required only if the unit was not ordered with this firmware pre-installed.

FIPS mode can only be enabled via console.

Syntax

```
config system fips
   set status enable
   set entropy-token {enable | disable | dynamic}
   set re-seed-interval <integer>
end
```

Variable	Description
status enable	Enable the FIPS-CC mode of operation. **Note**: enable option is available only via console and when the device is not in FIPS mode.
entropy-token {enable | disable | dynamic}	Configure support for the FortiTRNG entropy token when switching to FIPS mode: • `enable`: The token must be present during boot up and reseeding. If the token is not present, the boot up or reseeding is interrupted until the token is inserted. • `disable`: The current entropy implementation is used to seed the Random Number Generator (RNG) (default). • `dynamic`: The token is used to seed or reseed the RNG if it is present. If the token is not present, the boot process is not blocked and the old entropy implementation is used.
re-seed-interval <integer>	The amount of time between RNG reseeding, in minutes (0 - 1440, default = 1440).

fortiview

fortiview setting

Use this command to configure FortiView settings.

Syntax

```
config system fortiview setting
   set data-source {auto | cache-only | log-and-cache}
   set not-scanned apps {exclude | include}
   set resolve-ip {enable | disable}
end
```

Variable	Description
data-source {auto | cache-only | log-and-cache}	Data soure of the FortiView query (default = auto): • `auto`: Data from hcache and from logs in a flexible way. • `cache-only`: Data from hcache only. • `log-and-cache`: Data from logs and hcache.
not-scanned apps {exclude | include}	Include/exclude unscanned applications in FortiView (default = include). Set to `exclude` to filter out never scanned applications.
resolve-ip {enable | disable}	Enable/disable resolving the IP address to the hostname in FortiView (default = disable).

fortiview autocache

Use this command to configure FortiView autocache settings.

Syntax

```
config system fortiview auto-cache
   set aggressive-fortiview {enable | disable}
   set incr-fortiview {enable | disable}
   set interval <integer>
   set status {enable | disable}
end
```

Variable	Description
aggressive-fortiview {enable | disable}	Enable/disable aggressive auto-cache on FortiView (default = disable).
incr-fortiview {enable | disable}	Enable/disable FortiView incremental auto-cache (default = disable).
interval <integer>	The time interval for FortiView auto-cache, in hours (default = 168).
status {enable | disable}	Enable/disable FortiView auto-cache (default = enable).

global

Use this command to configure global settings that affect miscellaneous FortiManager features.

Syntax

```
config system global
   set admin-host <string>
   set admin-lockout-duration <integer>
   set admin-lockout-method {ip | user}
   set admin-lockout-threshold <integer>
   set admin-ssh-grace-time <integer>
   set adom-mode {advanced | normal}
   set adom-rev-auto-delete {by-days | by-revisions | disable}
   set adom-rev-max-backup-revisions <integer>
   set adom-rev-max-days <integer>
   set adom-rev-max-revisions <integer>
   set adom-select {enable | disable}
   set adom-status {enable | disable}
   set apache-mode {event | prefork}
   set apache-wsgi-processes <integer>
   set api-ip-binding {enable | disable}
   set clone-name-option {default | keep}
   set clt-cert-req {enable | disable}
   set console-output {more | standard}
   set contentpack-fgt-install {enable | disable}
   set country-flag {enable | disable}
   set create-revision {enable | disable}
   set daylightsavetime {enable | disable}
   set detect-unregistred-log-device {enable | disable}
   set device-view-mode {regular | tree}
   set dh-params <integer>
   set disable-module {fortiview-noc}
   set enc-algorithm {custom | high | medium | low}
   set faz-status {enable | disable}
   set fcp-cfg-service {enable | disable}
   set fgfm-allow-vm {enable | disable}
   set fgfm-ca-cert <certificate>
   set fgfm-cert-exclusive {enable | disable}
   set fgfm-deny-unknown {enable | disable}
   set fgfm-local-cert <certificate>
   set fgfm-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}
   set fortiservice-port <integer>
   set global-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}
   set gui-curl-timeout <integer>
   set gui-feature-visibility-mode {per-admin | per-adom}
   set gui-install-preview-concurrency <integer>
   set gui-polling-interval <integer>
   set ha-member-auto-grouping {enable | disable}
   set hitcount-response-timeout <integer>
   set hostname <string>
   set httpd-ssl-protocol {tlsv1.3 | tlsv1.2 | tlsv1.1 | tlsv1.0 | sslv3}
   set import-ignore-addr-cmt {enable | disable}
   set language {english | japanese | simch | spanish | trach}
```

```
set latitude <string>
set ldap-cache-timeout <integer>
set ldapconntimeout <integer>
set lock-preempt {enable | disable}
set log-checksum {md5 | md5-auth | none}
set log-checksum-upload {enable | disable}
set log-forward-cache-size <integer>
set longitude <string>
set management-ip <address>
set management-port <integer>
set mapclient-ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 |
     tlsv1.2 | tlsv1.3}
set max-log-forward <integer>
set max-running-reports <integer>
set mc-policy-disabled-adoms <adom-name>
set multiple-steps-upgrade-in-autolink {enable | disable}
set no-copy-permission-check {enable | disable}
set no-vip-value-check {enable | disable}
set normalized-intf-zone-only {enable | disable}
set object-revision-db-max <integer>
set object-revision-mandatory-note {enable | disable}
set object-revision-object-max <integer>
set object-revision-status {enable | disable}
set oftp-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}
set partial-install {enable | disable}
set partial-install-force {enable | disable}
set partial-install-rev {enable | disable}
set perform-improve-by-ha {enable | disable}
set per-policy-lock {enable | disable}
set policy-object-icon {enable | disable}
set policy-object-in-dual-pane {enable | disable}
set pre-login-banner {enable | disable}
set pre-login-banner-message <string>
set private-data-encryption {enable | disable}
set remoteauthtimeout <integer>
set rpc-log {enable | disable}
set save-last-hit-in-adomdb {enable | disable}
set search-all-adoms {enable | disable}
set skip-ip-check-in-session {enable | disable}
set ssh-enc-algo {3des-cbc aes128-cbc aes128-ctr aes128-gcm@openssh.com aes192-cbc
     aes192-ctr aes256-cbc aes256-ctr aes256-gcm@openssh.com arcfour arcfour128
     blowfish-cbc cast128-cbc chacha20-poly1305@openssh.com rijndael-
     cbc@lysator.liu.se}
set ssh-hostkey-algo {ecdsa-sha2-nistp521 rsa-sha2-256 rsa-sha2-512 ssh-ed25519 ssh-
     rsa}
set ssh-kex-algo {curve25519-sha256@libssh.org diffie-hellman-group-exchange-sha1
     diffie-hellman-group-exchange-sha256 diffie-hellman-group14-sha1 diffie-hellman-
     group14-sha256 diffie-hellman-group16-sha512 diffie-hellman-group18-sha512 ecdh-
     sha2-nistp256 ecdh-sha2-nistp384 ecdh-sha2-nistp521}
set ssh-mac-algo {hmac-md5 hmac-md5-96 hmac-md5-96-etm@openssh.com hmac-md5-
     etm@openssh.com hmac-ripemd160 hmac-ripemd160-etm@openssh.com hmac-
     ripemd160@openssh.com hmac-sha1 hmac-sha1-etm@openssh.com hmac-sha2-256 hmac-
     sha2-256-etm@openssh.com hmac-sha2-512 hmac-sha2-512-etm@openssh.com umac-128-
     etm@openssh.com umac-128@openssh.com umac-64-etm@openssh.com umac-64@openssh.com}
set ssh-strong-crypto {enable | disable}
config ssl-cipher-suites
   edit <priority>
      set cipher <string>
```

```
        set version {tls1.2-or-below | tls1.3}
      end
    set ssl-low-encryption {enable | disable}
    set ssl-static-key-ciphers {enable | disable}
    set swapmem {enable | disable}
    set table-entry-blink {enable | disable}
    set task-list-size <integer>
    set timezone <integer>
    set tunnel-mtu <integer>
    set usg {enable | disable}
    set vdom-mirror {enable | disable}
    set webservice-proto {tlsv1.3 | tlsv1.2 | tlsv1.1 | tlsv1.0 | sslv3 | sslv2}
    set workspace-mode {disabled | normal | per-adom | workflow}
    set workspace-unlock-after-install {enable | disable}
end
```

Variable	Description
admin-host <string>	Administrative host for HTTP and HTTPs. When set, will be used instead of the client's Host header for any redirection (default = null).
admin-lockout-duration <integer>	Set the lockout duration for FortiManager administration, in seconds (default = 60).
admin-lockout-method {ip | user}	Set the lockout method for FortiManager administration (default = ip).
admin-lockout-threshold <integer>	Set the lockout threshold for FortiManager administration (1 - 10, default = 3).
admin-ssh-grace-time <integer>	Maximum time in seconds permitted between making an SSH connection to the FortiManager unit and authenticating (10 - 3600 seconds (one hour), default = 120).
adom-mode {advanced | normal}	Set the ADOM mode (default = normal).
adom-rev-auto-delete {by-days | by-revisions | disable}	Auto delete features for old ADOM revisions: • `by-days`: Auto delete ADOM revisions by maximum days. • `by-revisions`: Auto delete ADOM revisions by maximum number of revisions (default). • `disable`: Disable auto delete function for ADOM revision.
adom-rev-max-backup-revisions <integer>	The maximum number of ADOM revisions to be included in the system configuration backup (default = 5).
adom-rev-max-days <integer>	The maximum number of days to keep old ADOM revisions (default = 30).
adom-rev-max-revisions <integer>	The maximum number of ADOM revisions to keep (default = 120).
adom-select {enable | disable}	Enable/disable a pop-up window that allows administrators to select an ADOM after logging in (default = enable).
adom-status {enable | disable}	Enable/disable administrative domains (default = disable).
apache-mode {event | prefork}	Set Apache mode to Apache event mode or Apache prefork mode (default = event).
apache-wsgi-processes <integer>	Set Apache wsgi processes (5 - 250, default = 10).

Variable	Description
api-ip-binding {enable | disable}	Enable/disable source IP check for JSON API request (default = enable).
clone-name-option {default | keep}	Set the cloned object name option: • `default`: Add a Clone of prefix to the name. • `keep`: Keep the original name for the user to edit.
clt-cert-req {enable | disable}	Enable/disable requiring a client certificate for GUI login (default = disable). When both `clt-cert-req` and `admin-https-pki-required` are enabled, only PKI administrators can connect to the GUI.
console-output {more | standard}	Select how the output is displayed on the console (default = standard). Select `more` to pause the output at each full screen until keypress. Select `standard` for continuous output without pauses.
contentpack-fgt-install {enable | disable}	Enable/disable auto outbreak auto install for FortiGate ADOMs (default = disable).
country-flag {enable | disable}	Enable/disable a country flag icon beside an IP address (default = enable).
create-revision {enable | disable}	Enable/disable create revision by default (default = disable).
daylightsavetime {enable | disable}	Enable/disable daylight saving time (default = enable). If you enable daylight saving time, the FortiManager unit automatically adjusts the system time when daylight saving time begins or ends.
detect-unregistered-log-device {enable | disable}	Enable/disable unregistered log device detection (default = enable).
device-view-mode {regular | tree}	Set the devices/groups view mode (default = regular).
dh-params <integer>	Set the minimum size of the Diffie-Hellman prime for SSH/HTTPS, in bits (default = 2048).
disable-module {fortiview-noc}	Disable module list.
enc-algorithm {custom | high | medium | low}	Set SSL communication encryption algorithms: • `custom`: SSL communication using custom encryption algorithms. • `high`: SSL communication using high encryption algorithms (default). • `medium`: SSL communication using high and medium encryption algorithms. • `low`: SSL communication using all available encryption algorithms.
faz-status {enable | disable}	Enable/disable FortiAnalyzer features in FortiManager (default = disable). This command is not available on the FMG-100C. **Note:** With FortiManager 7.0.0, you can enable FortiAnalyzer features, or you can have FortiManager HA, but not both at the same time.
fcp-cfg-service {enable | disable}	Enable/disable FCP service processing configuration requests from web (default = disable).
fgfm-allow-vm {enable | disable}	Enable/disable VM platform FGFM connect restriction. • `enable`: Allow VM platform connection in FGFM. • `disable`: Don't allow VM platform connection in FGFM (default).
fgfm-ca-cert <certificate>	Set the extra FGFM CA certificates ("" = default certificate will be used).

Variable	Description
fgfm-cert-exclusive {enable | disable}	Enable if the local or CA certificates should be used exclusively (default = disable; certificate is used best-effort).
fgfm-deny-unknown {enable | disable}	Set if allow devices with unknown serial number actively register as an unauthorized device. • `disable` (default): allow devices with unknown SN to actively register as an unauthorized device. • `enable`: deny devices with unknown SN to actively register as an unauthorized device.
fgfm-local-cert <certificate>	Set the FGFM local certificate ("" = default certificate will be used).
fgfm-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocols for fgfmsd (default = tlsv1.2).
fortiservice-port <integer>	Set the FortiService port (1 - 65535, default = 8013). Used by FortiClient endpoint compliance. Older versions of FortiClient used a different port.
global-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set global-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}.
gui-curl-timeout <integer>	Set the GUI cURL timeout in seconds (5-300 default = 30).
gui-feature-visibility-mode {per-admin | per-adom}	Set GUI feature visibility mode to one of the following: • `per-admin`: Per-admin control in policy & objects and provisioning templates. • `per-adom`: Per-ADOM control in policy & objects and provisioning templates (default).
gui-install-preview-concurrency <integer>	Set the maximum number of devices to be processed in a single GUI install preview request (1 - 100, default = 20).
gui-polling-interval <integer>	Set the GUI polling interval in seconds (1-288000, default = 5).
ha-member-auto-grouping {enable | disable}	Enable/disable automatically grouping HA members when the group name is unique in your network (default = enable).
hostname <string>	FortiManager host name.
httpd-ssl-protocol {tlsv1.3 | tlsv1.2 | tlsv1.1 | tlsv1.0 | sslv3}	Set the SSL protocols for the apache daemon (httpd).
hitcount-response-timeout <integer>	Timeout of waiting for hitcount response, in seconds (60 - 300, default = 60).
import-ignore-addr-cmt {enable | disable}	Enable/disable import ignore of address comments (default = disable).
language {english | japanese | simch | spanish | trach}	GUI language: • `english`: English (default) • `japanese`: Japanese • `simch`: Simplified Chinese • `spanish`: Spanish • `trach`: Traditional Chinese

Variable	Description
latitude <string>	Set the FortiManager device's latitude.
ldap-cache-timeout <integer>	LDAP cache timeout, in seconds (default =86400).
ldapconntimeout <integer>	LDAP connection timeout, in milliseconds (default = 60000).
lock-preempt {enable | disable}	Enable/disable the ADOM lock override (default = disable).
log-checksum {md5 | md5-auth | none}	Record log file hash value, timestamp, and authentication code at transmission or rolling: • `md5`: Record log file's MD5 hash value only. • `md5-auth`: Record log file's MD5 hash value and authentication code. • `none`: Do not record the log file checksum (default).
log-checksum-upload {enable | disable}	Enable/disable upload log checksum with log files (default = disable).
log-forward-cache-size <integer>	Set the log forwarding disk cache size, in gigabytes (default = 0).
longitude <string>	Set the FortiManager device's longitude.
management-ip <address>	Set the management IP address of this FortiGate (default = null). Used to log into this FortiGate from another FortiGate in the Security Fabric. Please input the management IP address in IPv4 or FQDN format.
management-port <integer>	Set the overriding port for management connection (overrides admin port) (default = 443).
mapclient-ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocol version for connection to mapserver.
max-log-forward <integer>	Set the maximum log forwarding and aggregation number (5 - 20).
max-running-reports <integer>	Maximum running reports number (1 - 10, default = 1).
mc-policy-disabled-adoms <adom-name>	Set the multicast policy disabled ADOMs, separated by spaces. Only ADOMs below version 6.0 can be included.
multiple-steps-upgrade-in-autolink {enable | disable}	Enable/disable multiple steps upgrade in an autolink process (default = disable).
no-copy-permission-check {enable | disable}	Do not perform permission check to block object changes in different adom during copy and install (default = disable). When set to `enable`, a check is performed when copying policies to prevent changing global device objects if the user does not have permission. By default, this is set to `disable`, so the check is not performed.
no-vip-value-check {enable | disable}	Enable/disable skipping policy instead of throwing error when VIP has no default or dynamic mapping during policy copy (default = disable).
normalized-intf-zone-only {enable | disable}	Allow the normalized interface to be zone only (default = disable).
object-revision-db-max <integer>	Maximum revisions for a single database (10000 - 1000000, default = 100000).

Variable	Description
object-revision-mandatory-note {enable | disable}	Enable/disable mandatory note when creating a revision (default = enable).
object-revision-object-max <integer>	Set the maximum revisions for a single object (10 - 1000, default = 100).
object-revision-status {enable | disable}	Enable/disable creating revisions when modifying objects (default = enable).
oftp-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocols for oftpd (default = tlsv1.2).
partial-install {enable | disable}	Enable/disable partial install (install only some objects) (default= disable). Use this command to enable pushing individual objects of the policy package down to all FortiGates in the Policy Package. Once enabled, in the GUI you can right-click an object and choose to install it.
partial-install-force {enable | disable}	Enable/disable partial install when the Dev database is modified (default= disable). This option is only available when partial-install is enabled.
partial-install-rev {enable | disable}	Enable/disable partial install revision (default= disable). This option is only available when partial-install is enabled.
perform-improve-by-ha {enable | disable}	Enable/disable performance improvement by distributing tasks to secondary HA units (default= disable).
per-policy-lock {enable | disable}	Enable/disable per policy lock (default= disable). This option is only available in workspace lock mode.
policy-object-icon {enable | disable}	Enable/disable show icons of policy objects (default= disable).
policy-object-in-dual-pane {enable | disable}	Enable/disable show policies and objects in dual pane (default= disable).
pre-login-banner {enable | disable}	Enable/disable pre-login banner (default= disable).
pre-login-banner-message <string>	Set the pre-login banner message.
private-data-encryption {enable | disable}	Enable/disable private data encryption using an AES 128 bit key (default = disable).
remoteauthtimeout <integer>	Remote authentication (RADIUS/LDAP) timeout, in seconds (default = 10).
rpc-log {enable | disable}	Enable/disable incoming/outgoing RPC logs (default = enable).
save-last-hit-in-adomdb {enable | disable}	Enable/disable save last-hit value in ADOM DB (default = disable).
search-all-adoms {enable | disable}	Enable/disable search all ADOMs for where-used queries (default= disable).

Variable	Description
skip-ip-check-in-session {enable | disable}	Enable/disable remote IP check for gui session. Recommend disabling this when the request's remote IP may change (default = disable).
set ssh-enc-algo {3des-cbc aes128-cbc aes128-ctr aes128-gcm@openssh.com aes192-cbc aes192-ctr aes256-cbc aes256-ctr aes256-gcm@openssh.com arcfour arcfour128 blowfish-cbc cast128-cbc chacha20-poly1305@openssh.com rijndael-cbc@lysator.liu.se}	Select one or more SSH ciphers. • `aes256-ctr` • `aes256-gcm@openssh.com` • `chacha20-poly1305@openssh.com` Note that the following are only available when `ssh-strong-crypto` is set to `disable`: • `3des-cbc` • `aes128-cbc` • `aes128-ctr` • `aes128-gcm@openssh.com` • `aes192-cbc` • `aes192-ctr` • `aes256-cbc` • `arcfour` • `arcfour128` • `arcfour256` • `blowfish-cbc` • `cast128-cbc` • `rijndael-cbc@lysator.liu.se` Default = `chacha20-poly1305@openssh.com aes256-ctr aes256-gcm@openssh.com`
set ssh-hostkey-algo {ecdsa-sha2-nistp521 rsa-sha2-256 rsa-sha2-512 ssh-ed25519 ssh-rsa}	Select one or more SSH hostkey algorithms. • `ecdsa-sha2-nistp521` • `rsa-sha2-256` • `rsa-sha2-512` • `ssh-ed25519` • `ssh-rsa` (only available when `ssh-strong-crypto` is set to `disable`) Default = `ecdsa-sha2-nistp521 rsa-sha2-256 rsa-sha2-512 ssh-ed25519`
set ssh-kex-algo {curve25519-sha256@libssh.org diffie-hellman-group-exchange-sha1 diffie-hellman-group-exchange-sha256 diffie-hellman-group14-sha1 diffie-hellman-group14-sha256 diffie-hellman-group16-sha512 diffie-hellman-group18-sha512 ecdh-sha2-nistp256 ecdh-sha2-nistp384 ecdh-sha2-nistp521}	Select one or more SSH kex algorithms. • `curve25519-sha256@libssh.org` • `diffie-hellman-group-exchange-sha1` (only available when `ssh-strong-crypto` is set to `disable`) • `diffie-hellman-group-exchange-sha256` • `diffie-hellman-group14-sha1` (only available when `ssh-strong-crypto` is set to `disable`) • `diffie-hellman-group14-sha256` • `diffie-hellman-group16-sha512` • `diffie-hellman-group18-sha512` • `ecdh-sha2-nistp256` • `ecdh-sha2-nistp384` • `ecdh-sha2-nistp521`

Variable	Description
	Default = `diffie-hellman-group14-sha256 diffie-hellman-group16-sha512 diffie-hellman-group18-sha512 diffie-hellman-group-exchange-sha256 curve25519-sha256@libssh.org ecdh-sha2-nistp256 ecdh-sha2-nistp384 ecdh-sha2-nistp521`
set ssh-mac-algo {hmac-md5 hmac-md5-96 hmac-md5-96-etm@openssh.com hmac-md5-etm@openssh.com hmac-ripemd160 hmac-ripemd160-etm@openssh.com hmac-ripemd160@openssh.com hmac-sha1 hmac-sha1-etm@openssh.com hmac-sha2-256 hmac-sha2-256-etm@openssh.com hmac-sha2-512 hmac-sha2-512-etm@openssh.com umac-128-etm@openssh.com umac-128@openssh.com umac-64-etm@openssh.com umac-64@openssh.com}	Select one or more SSH MAC algorithms. • `hmac-sha2-256` • `hmac-sha2-256-etm@openssh.com` • `hmac-sha2-512` • `hmac-sha2-512-etm@openssh.com` Note that the following are only available when `ssh-strong-crypto` is set to `disable`: • `hmac-md5` • `hmac-md5-96` • `hmac-md5-96-etm@openssh.com` • `hmac-md5-etm@openssh.com` • `hmac-ripemd160` • `hmac-ripemd160-etm@openssh.com` • `hmac-ripemd160@openssh.com` • `hmac-sha1` • `hmac-sha1-etm@openssh.com` • `umac-128-etm@openssh.com` • `umac-128@openssh.com` • `umac-64-etm@openssh.com` • `umac-64@openssh.com` Default = `hmac-sha2-256 hmac-sha2-256-etm@openssh.com hmac-sha2-512 hmac-sha2-512-etm@openssh.com`
set ssh-strong-crypto {enable | disable}	Only allow strong ciphers for SSH when enabled (default = enable).
ssl-low-encryption {enable | disable}	Enable/disable SSL low-grade (40-bit) encryption (default= disable).
ssl-static-key-ciphers {enable | disable}	Enable/disable SSL static key ciphers (default = enable).
swapmem {enable | disable}	Enable/disable virtual memory.
table-entry-blink {enable | disable}	Enable/disable table entry blink in GUI (default = enable).
task-list-size <integer>	Set the maximum number of completed tasks to keep (default = 2000).
timezone <integer>	The time zone for the FortiManager unit (default = Pacific Time). See Time zones on page 96
tunnel-mtu <integer>	Set the maximum transportation unit (68 - 9000, default = 1500).
usg {enable | disable}	Enable/disable contacting only FortiGuard servers in the USA (default = enable).
vdom-mirror {enable | disable}	Enable/disable VDOM mirror (default = disable).

Variable	Description
	Once enabled in the CLI, you can select to enable VDOM Mirror when editing a virtual domain in the `System > Virtual Domain` device tab in Device Manager. You can then add devices and VDOMs to the list so they may be mirrored. An icon is displayed in the Mirror column of the page to indicate that the VDOM is being mirrored to another device/VDOM. When changes are made to the primary device's VDOM database, a copy is applied to the mirror device's VDOM database. A revision is created and then installed to the devices. VDOM mirror is intended to be used by MSSP or enterprise companies who need to provide a backup VDOM for their customers.
webservice-proto {tlsv1.3 | tlsv1.2 | tlsv1.1 | tlsv1.0 | sslv3 | sslv2}	Web Service connection (default = tlsv1.3 tlsv1.2).
workspace-mode {disabled | normal | per-adom | workflow}	Enable/disable Workspace and Workflow (ADOM locking): • `disabled`: Workspace is disabled (default). • `normal`: Workspace lock mode enabled. • `per-adom`: Per-ADOM workspace mode enabled. • `workflow`: Workspace workflow mode enabled.
set workspace-unlock-after-install {enable | disable}	Enable/disable ADOM auto-unlock after device installation (default = disable). This option is not available if `workspace-mode` is set to `disabled`.
ssl-cipher-suites	Configure the ssl-cipher-suites table to enforce the user specified preferred cipher order in the incoming SSL connections. **Note**: This command is only available if `enc-algorithm` is set to `custom`.
Variables for `config ssl-cipher-suites` **subcommad:**	
<priority>	Set the order of the ciphers in the ssl-cipher-suites table.
cipher <string>	Enter the SSL cipher name from the list.
version {tls1.2-or-below | tls1.3}	Set the SSL/TLS version the cipher suite can be used with (default = tls1.2-or-below).

Example

The following command turns on daylight saving time, sets the FortiManager unit name to FMG3k, and chooses the Eastern time zone for US & Canada.

```
config system global
   set daylightsavetime enable
   set hostname FMG3k
   set timezone 12
end
```

Time zones

Integer	Time zone	Integer	Time zone
00	(GMT-12:00) Eniwetak, Kwajalein	40	(GMT+3:00) Nairobi
01	(GMT-11:00) Midway Island, Samoa	41	(GMT+3:30) Tehran
02	(GMT-10:00) Hawaii	42	(GMT+4:00) Abu Dhabi, Muscat
03	(GMT-9:00) Alaska	43	(GMT+4:00) Baku
04	**(GMT-8:00) Pacific Time (US & Canada)**	44	(GMT+4:30) Kabul
05	(GMT-7:00) Arizona	45	(GMT+5:00) Ekaterinburg
06	(GMT-7:00) Mountain Time (US & Canada)	46	(GMT+5:00) Islamabad, Karachi,Tashkent
07	(GMT-6:00) Central America	47	(GMT+5:30) Calcutta, Chennai, Mumbai, New Delhi
08	(GMT-6:00) Central Time (US & Canada)	48	(GMT+5:45) Kathmandu
09	(GMT-6:00) Mexico City	49	(GMT+6:00) Almaty, Novosibirsk
10	(GMT-6:00) Saskatchewan	50	(GMT+6:00) Astana, Dhaka
11	(GMT-5:00) Bogota, Lima, Quito	51	(GMT+6:00) Sri Jayawardenapura
12	(GMT-5:00) Eastern Time (US & Canada)	52	(GMT+6:30) Rangoon
13	(GMT-5:00) Indiana (East)	53	(GMT+7:00) Bangkok, Hanoi, Jakarta
14	(GMT-4:00) Atlantic Time (Canada)	54	(GMT+7:00) Krasnoyarsk
15	(GMT-4:00) La Paz	55	(GMT+8:00) Beijing,ChongQing, HongKong,Urumqi
16	(GMT-4:00) Santiago	56	(GMT+8:00) Irkutsk, Ulaanbaatar
17	(GMT-3:30) Newfoundland	57	(GMT+8:00) Kuala Lumpur, Singapore
18	(GMT-3:00) Brasilia	58	(GMT+8:00) Perth
19	(GMT-3:00) Buenos Aires, Georgetown	59	(GMT+8:00) Taipei
20	(GMT-3:00) Nuuk (Greenland)	60	(GMT+9:00) Osaka, Sapporo, Tokyo, Seoul
21	(GMT-2:00) Mid-Atlantic	61	(GMT+9:00) Yakutsk
22	(GMT-1:00) Azores	62	(GMT+9:30) Adelaide
23	(GMT-1:00) Cape Verde Is	63	(GMT+9:30) Darwin
24	(GMT) Casablanca, Monrovia	64	(GMT+10:00) Brisbane
25	(GMT) Greenwich Mean Time:Dublin, Edinburgh, Lisbon, London	65	(GMT+10:00) Canberra, Melbourne, Sydney
26	(GMT+1:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna	66	(GMT+10:00) Guam, Port Moresby
27	(GMT+1:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague	67	(GMT+10:00) Hobart

Integer	Time zone	Integer	Time zone
28	(GMT+1:00) Brussels, Copenhagen, Madrid, Paris	68	(GMT+10:00) Vladivostok
29	(GMT+1:00) Sarajevo, Skopje, Sofija, Vilnius, Warsaw, Zagreb	69	(GMT+11:00) Magadan
30	(GMT+1:00) West Central Africa	70	(GMT+11:00) Solomon Is., New Caledonia
31	(GMT+2:00) Athens, Istanbul, Minsk	71	(GMT+12:00) Auckland, Wellington
32	(GMT+2:00) Bucharest	72	(GMT+12:00) Fiji, Kamchatka, Marshall Is
33	(GMT+2:00) Cairo	73	(GMT+13:00) Nuku'alofa
34	(GMT+2:00) Harare, Pretoria	74	(GMT-4:30) Caracas
35	(GMT+2:00) Helsinki, Riga,Tallinn	75	(GMT+1:00) Namibia
36	(GMT+2:00) Jerusalem	76	(GMT-5:00) Brazil-Acre)
37	(GMT+3:00) Baghdad	77	(GMT-4:00) Brazil-West
38	(GMT+3:00) Kuwait, Riyadh	78	(GMT-3:00) Brazil-East
39	(GMT+3:00) Moscow, St.Petersburg, Volgograd	79	(GMT-2:00) Brazil-DeNoronha

ha

Use the `config system ha` command to enable and configure FortiManager high availability (HA). FortiManager HA provides a solution for a key requirement of critical enterprise management and networking components: enhanced reliability.

A FortiManager HA cluster consists of up five FortiManager units of the same FortiManager model. One of the FortiManager units in the cluster operates as a primary unit and the other one to four units operate as backup units. All of the units are visible on the network. The primary unit and the backup units can be at the same location. FortiManager HA also supports geographic redundancy so the primary unit and backup units can be in different locations attached to different networks as long as communication is possible between them (for example over the Internet, over a WAN, or through a private network).

Note: With FortiManager 7.0.0, you can enable FortiAnalyzer features, or you can have FortiManager HA, but not both at the same time.

Administrators connect to the primary unit GUI or CLI to perform FortiManager operations. The primary unit also interacts with managed FortiGate devices, and FortiSwitch devices. Managed devices connect with the primary unit for configuration backup and restore. If FortiManager is being used to distribute firmware updates and FortiGuard updates to managed devices, the managed devices can connect to the primary unit or one of the backup units.

If the primary FortiManager unit fails you must manually configure one of the backup units to become the primary unit. The new primary unit will have the same IPv4 addresses as it did when it was the backup unit. For the managed devices to automatically start using the new primary unit, you should add all of the FortiManager units in the cluster to the managed devices.

For more information, see the FortiManager Administration Guide.

Syntax

```
config system ha
   set clusterid <clusert_ID_int>
   set failover-mode {manual | vrrp}
   set file-quota <integer>
   set hb-interval <integer>
   set hb-lost-threshold <integer>
   set local-cert <string>
   set mode {primary | secondary | standalone}
   set monitored-interfaces <string>
   set password <passwd>
   set priority <integer>
   set unicast {enable | disable}
   set vip <string>
   set vip-interface <string>
   set vrrp-adv-interval <integer>
   set vrrp-interface <string>
   config monitored-ips
      edit <id>
         set interface <string>
         ip <string>
      next
   config peer
      edit <peer_id_int>
         set ip <peer_ipv4_address>
         set ip6 <peer_ipv6_address>
         set serial-number <string>
         set status {enable | disable}
      next
   next
end
```

Variable	Description
clusterid <clusert_ID_int>	A number that identifies the HA cluster (1 - 64, default = 1). All members of the HA cluster must have the same cluster ID. If you have more than one FortiManager HA cluster on the same network, each HA cluster must have a different ID.
failover-mode {manual | vrrp}	The HA failover mode: • `manual`: Manual failover mode (default). • `vrrp`: VRRP mode.
file-quota <integer>	Set the HA file quota, in megabytes (2048 - 20480, default = 4096).
hb-interval <integer>	The time that a cluster unit waits between sending heartbeat packets, in seconds (1 - 255, default = 10). The heartbeat interval is also the amount of time that a cluster unit waits before expecting to receive a heartbeat packet from the other cluster unit.
hb-lost-threshold <integer>	The number of heartbeat intervals that one of the cluster units waits to receive HA heartbeat packets from other cluster units before assuming that the other cluster units have failed (1 - 255, default = 30).

Variable	Description
	In most cases you do not have to change the heartbeat interval or failover threshold. The default settings mean that if the a unit fails, the failure is detected after 3 x 5 or 15 seconds; resulting in a failure detection time of 15 seconds. If the failure detection time is too short the HA cluster may detect a failure when none has occurred. For example, if the primary unit is very busy it may not respond to HA heartbeat packets in time. In this situation, the backup unit may assume that the primary unit has failed when the primary unit is actually just busy. Increase the failure detection time to prevent the backup unit from detecting a failure when none has occurred. If the failure detection time is too long, administrators will be delayed in learning that the cluster has failed. In most cases, a relatively long failure detection time will not have a major effect on operations. But if the failure detection time is too long for your network conditions, then you can reduce the heartbeat interval or failover threshold.
local-cert <string>	Set the local HA certificate.
mode {primary | secondary | standalone}	The HA mode (default = standalone). Select `primary` to configure the FortiManager unit to be the primary unit in a cluster. Select `secondary` to configure the FortiManager unit to be a backup unit in a cluster. Select `standalone` to stop operating in HA mode.
monitored-interfaces <string>	Set the interface to be monitored. Enter port1, port2, port3....port10. **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
password <passwd>	A group password for the HA cluster. All members of the HA cluster must have the same group password. If you have more than one FortiManager HA cluster on the same network, each HA cluster must have a different password (character limit: 19).
priority <integer>	Set the runtime priority where 1 is the lowest and 253 is highest priority (1 - 253, default = 1). **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
unicast {enable | disable}	Enable/disable using unicast for VRRP message (default = disable). **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
vip <string>	Enter the Virtual IP address. **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
vip-interface <string>	Set the Virtual IP interface. Enter port1, port2, port3....port10. **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
vrrp-adv-interval <integer>	Set the VRRP advert interval, in seconds (1 - 30, default = 3). **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
vrrp-interface <string>	Set VRRP and VIP interface name. Enter port1, port2, port3....port10. **Note**: This variable is only available when the `failover-mode` is set to `vrrp`.
monitored-ips	Add monitored IPS addresses.

Variable	Description
peer	Add peers to the HA configuration of the FortiManager unit. For the primary unit, add all of the backup units as peers, up to a maximum of four. For a backup unit, only add the primary unit as a peer.
Variables for`config monitored-ips` **subcommand**:	
<id>	Enter an Id.
interface <string>	Set the interface name. Enter port1, port2, port3....port10.
ip <string>	Set the IPv4/IPv6 address.
Variables for `config peer` **subcommand**:	
<peer_id_int>	Add a peer and add the peer's IPv4 or IPv6 address and serial number.
ip <peer_ipv4_address>	Enter the IPv4 address of the peer FortiManager unit.
ip6 <peer_ipv6_address>	Enter the IPv6 address of the peer FortiManager unit.
serial-number <string>	Enter the serial number of the peer FortiManager unit.
status {enable | disable}	Enter the status of the peer FortiManager unit (default = enable).

General FortiManager HA configuration steps

The following steps assume that you are starting with four FortiManager units running the same firmware build and are set to the factory default configuration. The primary unit and the first backup unit are connected to the same network. The second and third backup units are connected to a remote network and communicate with the primary unit over the Internet.

1. Enter the following command to configure the primary unit for HA operation.

```
config system ha
   set mode primary
   set password <password_str>
   set clusterid 10
      config peer
         edit 1
            set ip <peer_ip_ipv4>
            set serial-number <peer_serial_str>
         next
         edit 2
            set ip <peer_ip_ipv4>
            set serial-number <peer_serial_str>
         next
         edit 3
            set ip <peer_ip_ipv4>
            set serial-number <peer_serial_str>
         next
   end
```

   This command configures the FortiManager unit to operate as the primary unit, adds a password, sets the `clusterid` to `10`, and accepts defaults for the other HA settings. This command also adds the three backup units to the primary unit as peers.

2. Enter the following command to configure the backup units for HA operation.

```
config system ha
   set mode secondary
   set password <password_str>
   set clusterid 10
      config peer
         edit 1
            set ip <peer_ip_ipv4>
            set serial-number <peer_serial_str>
         next
   end
```

   This command configures the FortiManager unit to operate as a backup unit, adds the same password, and `clusterid` as the primary unit, and accepts defaults for the other HA settings. This command also adds the primary unit to the backup unit as a peer.
3. Repeat step 2 to configure each backup unit.

ha-scheduled-check

Use this command to schedule an HA integrity check.

Syntax

```
config system ha-scheduled-check
   set status {enable | disable}
   set time <hh:mm:ss>
   set week_days {monday tuesday wednesday thursday friday saturday sunday}
end
```

Variable	Description
status {enable | disable}	Enable/disable scheduled backups (default = disable).
time <hh:mm:ss>	Enter the time of day to perform the backup. Time is required in the form `<hh:mm:ss>` where hh: `0-23`, mm: `0-59`, and ss: `0-59`.
week_days {monday tuesday wednesday thursday friday saturday sunday}	Enter the days of the week on which to perform backups. You may enter multiple days.

interface

Use this command to edit the configuration of a FortiManager network interface.

Syntax

To configure a physical interface:

```
config system interface
   edit <interface name>
      set status {enable | disable}
      set mode {dhcp | static}
      set ip <ipv4_mask>
      set dhcp-client-identifier <integer>
      set defaultgw {enable | disable}
      set dns-server-override {enable | disable}
      set mtu-override {enable | disable}
      set allowaccess {fabric http https ping snmp soc-fabric ssh webservice}
      set serviceaccess {fclupdates fgtupdates webfilter-antispam}
      set update-service-ip <ip&netmask>
      set rating-service-ip <ip&netmask>
      set lldp {enable | disable}
      set speed {1000full | 100full | 100half | 10full | 10half | auto}
      set description <string>
      set alias <string>
      set mtu <integer>
      set type {aggregate | physical | vlan}
      config ipv6
         set ip6-address <ipv6 prefix>
         set ip6-allowaccess {fabric http https https-logging ping snmp ssh webservice}
         set ip6-autoconf {enable | disable}
      end
   end
```

To configure an aggregate interface:

```
config system interface
   edit <interface name>
      set status {enable | disable}
      set mode {dhcp | static}
      set ip <ipv4_mask>
      set dhcp-client-identifier <integer>
      set defaultgw {enable | disable}
      set dns-server-override {enable | disable}
      set mtu-override {enable | disable}
      set allowaccess {fabric http https ping snmp soc-fabric ssh webservice}
      set serviceaccess {fclupdates fgtupdates webfilter-antispam}
      set update-service-ip <ip&netmask>
      set rating-service-ip <ip&netmask>
      set speed {1000full | 100full | 100half | 10full | 10half | auto}
      set description <string>
      set alias <string>
      set mtu <integer>
      set type {aggregate | physical | vlan}
      set lacp-speed {fast | slow}
      set min-links <integer>
      set min-links-down {administrative | operational}
      set link-up-delay <integer>
      config member
         edit <interface-name>
```

```
      end
      config ipv6
         set ip6-address <ipv6 prefix>
         set ip6-allowaccess {fabric http https https-logging ping snmp ssh webservice}
         set ip6-autoconf {enable | disable}
      end
   end
```

To configure a VLAN interface:

```
config system interface
   edit <interface name>
      set status {enable | disable}
      set mode {dhcp | static}
      set ip <ipv4_mask>
      set dhcp-client-identifier <integer>
      set defaultgw {enable | disable}
      set dns-server-override {enable | disable}
      set mtu-override {enable | disable}
      set allowaccess {fabric http https ping snmp soc-fabric ssh webservice}
      set serviceaccess {fclupdates fgtupdates webfilter-antispam}
      set update-service-ip <ip&netmask>
      set rating-service-ip <ip&netmask>
      set speed {1000full | 100full | 100half | 10full | 10half | auto}
      set description <string>
      set alias <string>
      set mtu <integer>
      set type {aggregate | physical | vlan}
      set interface <string>
      set vlanid <integer>
      set vlan-protocol {8021ad | 8021q}
      config ipv6
         set ip6-address <ipv6 prefix>
         set ip6-allowaccess {fabric http https https-logging ping snmp ssh webservice}
         set ip6-autoconf {enable | disable}
      end
   end
```

Variable	Description
<interface name>	The interface name. The port can be set to a port number such as `port1`, `port2`, `port3`, or `port4`. Different FortiManager models have different numbers of ports.
status {enable | disable}	Enable/disable the interface (default = enable). If the interface is disabled it does not accept or send packets. If you disable a physical interface, VLAN interfaces associated with it are also disabled.
mode {dhcp | static}	Set the addressing mode (static setting, or DHCP client mode).
ip <ipv4_mask>	Enter the interface IPv4 address and netmask. The IPv4 address cannot be on the same subnet as any other interface.
dhcp-client-identifier <integer>	Enter the DHCP client identifier (default = (null)). This variable is only available when the `mode` is `dhcp`.
defaultgw {enable | disable}	Enable/disable default gateway (default = enable).

Variable	Description
	This variable is only available when the `mode` is `dhcp`.
dns-server-override {enable | disable}	Enable/disable use DNS acquired by DHCP or PPPoE (default = enable). This variable is only available when the `mode` is `dhcp`.
mtu-override {enable | disable}	Enable/disable use MTU acquired by DHCP or PPPoE (default = enable). This variable is only available when the `mode` is `dhcp`.
allowaccess {fabric http https ping snmp soc-fabric ssh webservice}	Enter the types of management access permitted on this interface. Separate multiple selected types with spaces. If you want to add or remove an option from the list, retype the list as required.
serviceaccess {fclupdates fgtupdates webfilter-antispam}	Enter the types of service access permitted on this interface. Separate multiple selected types with spaces. If you want to add or remove an option from the list, retype the list as required. • `fclupdates`: FortiClient updates access. • `fgtupdates`: FortiGate updates access. • `webfilter-antispam`: Web filtering and antispam access.
update-service-ip <ip&netmask>	The IP address for the FortiGate update service. It must be on the same subnet as the interface IP address. This variable is only available when `serviceaccess` is `fgtupdates`.
rating-service-ip <ip&netmask>	The IP address for the FortiGate rating service. It must be on the same subnet as the interface IP address. This variable is only available when `serviceaccess` is `webfilter-antispam`.
lldp {enable | disable}	Enable or disable the link layer discovery protocol (LLDP) (default = disable). This variable is only available when the `type` is `physical`.
speed {1000full | 100full | 100half | 10full | 10half | auto}	Enter the speed and duplexing the network port uses: • `100full`: 100M full-duplex • `100half`: 100M half-duplex • `10full`: 10M full-duplex • `10half`: 10M half-duplex • `auto`: Automatically negotiate the fastest common speed (default)
description <string>	Enter a description of the interface (character limit = 63).
alias <string>	Enter an alias for the interface.
mtu <integer>	Set the maximum transportation unit (68 - 9000, default = 1500).
type {aggregate | physical | vlan}	Set the type of interface (default = aggregate).
lacp-speed {fast | slow}	Set how often the interface sends LACP messages: • `fast`: Send LACP message every second. • `slow`: Send LACP message every 30 seconds (default). This variable is only available when the `type` is `aggregate`.
min-links <integer>	Set the minimum number of aggregated ports that must be up (default = 1). This variable is only available when the `type` is `aggregate`.

Variable	Description
min-links-down {administrative | operational}	Action to take when less than the configured minimum number of links are active: • `administrative`: Set the aggregate administratively down. • `operational`: Set the aggregate operationally down (default). This variable is only available when the `type` is `aggregate`.
link-up-delay <integer>	Set the number of milliseconds to wait before considering a link is up (default = 50). This variable is only available when the `type` is `aggregate`.
interface <string>	Set the underlying interface name for the VLAN interface. This variable is only available when the `type` is `vlan`.
vlanid <integer>	Set the VLAN ID (1 - 4094, default = 0). This variable is only available when the `type` is `vlan`.
vlan-protocol {8021ad | 8021q}	Set the ethernet protocol of the VLAN (IEEE 802.1AD or IEEE 802.1Q, default = IEEE 802.1Q). This variable is only available when the `type` is `vlan`.
Variables for `config member` **subcommand**: This subcommand is only available when the `type` is `aggregate`.	
<interface-name>	Enter the interface name that belongs to the aggregate or the redundant interface.
Variables for `config ipv6` **subcommand**:	
ip6-address <ipv6 prefix>	IPv6 address/prefix of interface.
ip6-allowaccess {fabric http https https-logging ping snmp ssh webservice}	Allow management access to the interface. For more information on each access protocol, see the FortiManager Administration Guide.
ip6-autoconf {enable | disable}	Enable/disable address automatic configuration (SLAAC) (default = enable).

Example

This example shows how to set the FortiManager port1 interface IPv4 address and network mask to `192.168.100.159` and `255.255.255.0`, and the management access to `ping`, `https`, and `ssh`.

```
config system interface
  edit port1
    set allowaccess ping https ssh
    set ip 192.168.110.26 255.255.255.0
    set status enable
  end
```

local-in-policy

Use this command to edit the configuration of an IPv4 local-in policy.

Syntax

```
config system local-in-policy
   edit <id>
      set action {accept | drop | reject}
      set dport <integer>
      set dst <ip&netmask>
      set intf <string>
      set protocol {tcp | tcp_udp | udp}
      set src <ip&netmask>
   end
end
```

Variable	Description
<id>	Set the entry number.
action {accept | drop | reject}	Select the action to be performed on the traffic matching this policy: • `accept`: Allow traffic matching this policy. • `drop`: Drop traffic matching this policy (default). • `reject`: Reject traffic matching this policy.
dport <integer>	Enter the destination port number (0 for all, default = 0).
dst <ip&netmask>	Enter the destination IPv4 address and mask (default = 0.0.0.0 0.0.0.0).
intf <string>	Enter a name for the incoming interface. Enter port1, port2, port3....port10.
protocol {tcp | tcp_udp | udp}	Set the traffic protocol: • `tcp`: TCP only. • `tcp_udp`: TCP and UDP (default). • `udp`: UDP only.
src <ip&netmask>	Enter the source IPv4 address and mask (default = 0.0.0.0 0.0.0.0).

local-in-policy6

Use this command to edit the configuration of an IPv6 local-in policy.

Syntax

```
config system local-in-policy6
   edit <id>
      set action {accept | drop | reject}
      set dport <integer>
      set dst <ip&netmask>
```

```
      set intf <string>
      set protocol {tcp | tcp_udp | udp}
      set src <ip&netmask>
   end
end
```

Variable	Description
<id>	Set the entry number.
action {accept | drop | reject}	Select the action to be performed on the traffic matching this policy: • `accept`: Allow traffic matching this policy. • `drop`: Drop traffic matching this policy (default). • `reject`: Reject traffic matching this policy.
dport <integer>	Enter the destination port number (0 for all, default = 0).
dst <IPv6 prefix>	Enter the destination IPv6 address and prefix (default = ::/0).
intf <string>	Enter a name for the incoming interface. Enter port1, port2, port3....port10.
protocol {tcp | tcp_udp | udp}	Set the traffic protocol: • `tcp`: TCP only. • `tcp_udp`: TCP and UDP (default). • `udp`: UDP only.
src <IPv6 prefix>	Enter the source IPv6 address and prefix (default = ::/0).

locallog

Use the following commands to configure local log settings.

locallog setting

Use this command to configure locallog logging settings.

Syntax

```
config system locallog setting
   set log-daemon-crash {enable | disable}
   set log-interval-adom-perf-stats <integer>
   set log-interval-dev-no-logging <integer>
   set log-interval-disk-full <integer>
   set log-interval-gbday-exceeded <integer>
   set no-log-detection-threshold <integer>
end
```

Variable	Description
log-daemon-crash {enable | disable}	Send a log message when a daemon crashes (default = disable).
log-interval-adom-perf-stats <integer>	Interval for logging the event of adom perf stats, in minutes (default = 5).
log-interval-dev-no-logging <integer>	Interval for logging the event of no logs received from a device, in minutes (default = 1440).
log-interval-disk-full <integer>	Interval for logging the event of disk full, in minutes (default = 5).
log-interval-gbday-exceeded <integer>	Interval for logging the event of the GB/Day license exceeded, in minutes (default = 1440).
no-log-detection-threshold <integer>	Interval to trigger a local event message if no log data is received, in minutes (default = 15).

locallog disk setting

Use this command to configure the disk settings for uploading log files, including configuring the severity of log levels.

- `status` must be enabled to view `diskfull`, `max-log-file-size` and `upload` variables.
- `upload` must be enabled to view/set other `upload*` variables.

Syntax

```
config system locallog disk setting
   set status {enable | disable}
   set severity {alert | critical | debug | emergency | error | information |
        notification | warning}
   set max-log-file-size <integer>
   set max-log-file-num <integer>
   set roll-schedule {none | daily | weekly}
   set roll-day {sunday | monday | tuesday | wednesday | thursday | friday | saturday}
   set roll-time <hh:mm>
   set diskfull {nolog | overwrite}
   set log-disk-full-percentage <integer>
   set log-disk-quota <integer>
   set upload {enable | disable}
   set uploadip <ipv4_address>
   set server-type {FAZ | FTP | SCP | SFTP}
   set uploadport <integer>
   set uploaduser <string>
   set uploadpass <passwd>
   set uploaddir <string>
   set uploadtype <event>
   set uploadzip {enable | disable}
   set uploadsched {enable | disable}
   set upload-time <hh:mm>
   set upload-delete-files {enable | disable}
end
```

Variable	Description
status {enable | disable}	Enable/disable logging to the local disk (default = enable)
severity {emergency | alert | critical | error | warning | notification | information | debug}	Select the logging severity level. The FortiManager unit logs all messages at and above the logging severity level you select. • `emergency`: The unit is unusable. • `alert`: Immediate action is required. • `critical`: Functionality is affected. • `error`: Functionality is probably affected. • `warning`: Functionality might be affected. • `notification`: Information about normal events. • `information`: General information about unit operations (default). • `debug`: Information used for diagnosis or debugging.
max-log-file-size <integer>	Enter the size at which the log is rolled, in megabytes (1 - 1024, default = 100).
max-log-file-num <integer>	Enter the number of log files at which the logs are rolled (10 - 10000, default = 10000).
roll-schedule {none | daily | weekly}	Enter the period for the scheduled rolling of a log file: • `none`: Not scheduled; the log rolls when `max-log-file-size` is reached (default). • `daily`: Every day. • `weekly`: Every week.
roll-day {sunday | monday | tuesday | wednesday | thursday | friday | saturday}	Enter the day for the scheduled rolling of a log file (default = sunday).
roll-time <hh:mm>	Enter the time for the scheduled rolling of a log file.
diskfull {nolog | overwrite}	Enter action to take when the disk is full: • `nolog`: stop logging • `overwrite`: overwrites oldest log entries (default)
log-disk-full-percentage <integer>	Enter the percentage at which the log disk will be considered full (50 - 90, default = 80).
log-disk-quota <integer>	Enter the quota for controlling local log size, in GB (0 - 50, default = 0). **Note:** 0 means no control of local log size.
upload {enable | disable}	Enable/disable uploading of logs when rolling log files (default = disable).
uploadip <ipv4_address>	Enter IPv4 address of the destination server.
server-type {FTP | SCP | SFTP}	Enter the server type to use to store the logs: • `FTP`: upload via FTP (default) • `SCP`: upload via SCP • `SFTP`: upload via SFTP

Variable	Description
uploadport <integer>	Enter the port to use when communicating with the destination server (1 - 65535, default = 0).
uploaduser <string>	Enter the user account on the destination server.
uploadpass <passwd>	Enter the password of the user account on the destination server (character limit = 127).
uploaddir <string>	Enter the destination directory on the remote server.
uploadtype <event>	Enter to upload the event log files (default = event).
uploadzip {enable | disable}	Enable to compress uploaded log files (default = disable).
uploadsched {enable | disable}	Enable to schedule log uploads (default = disable).
upload-time <hh:mm>	Enter to configure when to schedule an upload.
upload-delete-files {enable | disable}	Enable/disable deleting log files after uploading (default = enable).

Example

In this example, the logs are uploaded to an upload server and are not deleted after they are uploaded.

```
config system locallog disk setting
   set status enable
   set severity information
   set max-log-file-size 1000MB
   set roll-schedule daily
   set upload enable
   set uploadip 10.10.10.1
   set uploadport port 443
   set uploaduser myname2
   set uploadpass 12345
   set uploadtype event
   set uploadzip enable
   set uploadsched enable
   set upload-time 06:45
   set upload-delete-file disable
end
```

locallog filter

Use this command to configure filters for local logs. All keywords are visible only when `event` is `enabled`.

Syntax

```
config system locallog {disk | memory | fortianalyzer | fortianalyzer2 | fortianalyzer3 |
      syslogd | syslogd2 | syslogd3} filter
   set controller {enable | disable}
   set devcfg {enable | disable}
   set devops {enable | disable}
```

```
    set diskquota {enable | disable}
    set dm {enable | disable}
    set dvm {enable | disable}
    set ediscovery {enable | disable}
    set epmgr {enable | disable}
    set event {enable | disable}
    set eventmgmt {enable | disable}
    set faz {enable | disable}
    set fazha {enable | disable}
    set fazsys {enable | disable}
    set fgd {enable | disable}
    set fgfm {enable | disable}
    set fips {enable | disable}
    set fmgws {enable | disable}
    set fmlmgr {enable | disable}
    set fmwmgr {enable | disable}
    set fortiview {enable | disable}
    set glbcfg {enable | disable}
    set ha {enable | disable}
    set hcache {enable | disable}
    set incident {enable | disable}
    set iolog {enable | disable}
    set logd {enable | disable}
    set logdb {enable | disable}
    set logdev {enable | disable}
    set logfile {enable | disable}
    set logging {enable | disable}
    set lrmgr {enable | disable}
    set objcfg {enable | disable}
    set report {enable | disable}
    set rev {enable | disable}
    set rtmon {enable | disable}
    set scfw {enable | disable}
    set scply {enable | disable}
    set scrmgr {enable | disable}
    set scvpn {enable | disable}
    set system {enable | disable}
    set webport {enable | disable}
end
```

Variable	Description
controller {enable | disable}	Enable/disable controller application generic messages (default = enable).
devcfg {enable | disable}	Enable/disable logging device configuration messages (default = enable).
devops {enable | disable}	Enable/disable managed device's operations messages (default = enable).
diskquota {enable | disable}	Enable/disable logging FortiAnalyzer disk quota messages (default = enable).
dm {enable | disable}	Enable/disable logging deployment manager messages (default = enable).
dvm {enable | disable}	Enable/disable logging device manager messages (default = enable).
ediscovery {enable | disable}	Enable/disable logging device manager messages (default = enable).
epmgr {enable | disable}	Enable/disable logging endpoint manager messages (default = enable).

Variable	Description
event {enable | disable}	Enable/disable configuring log filter messages (default = enable).
eventmgmt {enable | disable}	Enable/disable logging FortiAnalyzer event handler messages (default = enable).
faz {enable | disable}	Enable/disable logging FortiAnalyzer messages (default = enable).
fazha {enable | disable}	Enable/disable logging FortiAnalyzer HA messages (default = enable).
fazsys {enable | disable}	Enable/disable logging FortiAnalyzer system messages (default = enable).
fgd {enable | disable}	Enable/disable logging FortiGuard service messages (default = enable).
fgfm {enable | disable}	Enable/disable logging FortiGate/FortiManager communication protocol messages (default = enable).
fips {enable | disable}	Enable/disable logging FIPS messages (default = enable).
fmgws {enable | disable}	Enable/disable logging web service messages (default = enable).
fmlmgr {enable | disable}	Enable/disable logging FortiMail manager messages (default = enable).
fmwmgr {enable | disable}	Enable/disable logging firmware manager messages (default = enable).
fortiview {enable | disable}	Enable/disable logging FortiAnalyzer FortiView messages (default = enable).
glbcfg {enable | disable}	Enable/disable logging global database messages (default = enable).
ha {enable | disable}	Enable/disable logging high availability activity messages (default = enable).
hcache {enable | disable}	Enable/disable logging hcache messages (default = enable).
incident {enable | disable}	Enable/disable logging FortiAnalyzer incident messages (default = enable).
iolog {enable | disable}	Enable/disable input/output log activity messages (default = enable).
logd {enable | disable}	Enable/disable logd messages (default = enable).
logdb {enable | disable}	Enable/disable logging FortiAnalyzer log DB messages (default = enable).
logdev {enable | disable}	Enable/disable logging FortiAnalyzer log device messages (default = enable).
logfile {enable | disable}	Enable/disable logging FortiAnalyzer log file messages (default = enable).
logging {enable | disable}	Enable/disable logging FortiAnalyzer logging messages (default = enable).
lrmgr {enable | disable}	Enable/disable logging log and report manager messages (default = enable).
objcfg {enable | disable}	Enable/disable logging object configuration (default = enable).
report {enable | disable}	Enable/disable logging FortiAnalyzer report messages (default = enable).
rev {enable | disable}	Enable/disable logging revision history messages (default = enable).
rtmon {enable | disable}	Enable/disable logging real-time monitor messages (default = enable).
scfw {enable | disable}	Enable/disable logging firewall objects messages (default = enable).
scply {enable | disable}	Enable/disable logging policy console messages (default = enable).
scrmgr {enable | disable}	Enable/disable logging script manager messages (default = enable).

Variable	Description
scvpn {enable | disable}	Enable/disable logging VPN console messages (default = enable).
system {enable | disable}	Enable/disable logging system manager messages (default = enable).
webport {enable | disable}	Enable/disable logging web portal messages (default = enable).

Example

In this example, the local log filters are log and report manager, and system settings. Events in these areas of the FortiManager unit will be logged.

```
config system locallog filter
   set event enable
   set lrmgr enable
   set system enable
end
```

locallog fortianalyzer (fortianalyzer2, fortianalyzer3) setting

Use this command to enable or disable, and select the severity threshold of, remote logging to the FortiAnalyzer units. You can configure up to three FortiAnalyzer devices.

The severity threshold required to forward a log message to the FortiAnalyzer unit is separate from event, syslog, and local logging severity thresholds.

Syntax

```
config system locallog {fortianalyzer | fortianalyzer2 | fortianalyzer3} setting
   set peer-cert-cn <string>
   set reliable {enable | disable}
   set severity {emergency | alert | critical | error | warning | notification |
        information | debug}
   set server <address>
   set secure-connection {enable | disable}
   set status {disable | realtime | upload}
   set upload-time <hh:mm>
end
```

Variable	Description
peer-cert-cn <string>	Certificate common name for the remote FortiAnalyzer. This variable is available only when the `status` is `upload`. **Note:** Null or '-' means no certificate CN for the remote FortiAnalyzer. Multiple CNs are separated by commas. If there is comma in CN, it must follow an escape character.
reliable {enable | disable}	Enable/disable reliable realtime logging (default = disable).

Variable	Description
severity {emergency | alert | critical | error | warning | notification | information | debug }	Select the logging severity level (default = notification). The FortiManager unit logs all messages at and above the logging severity level you select.
server <address>	Remote FortiAnalyzer server IP address, FQDN, or hostname.
secure-connection {enable | disable}	Enable/disable connection secured by TLS/SSL (default = disable).
status {disable | realtime | upload}	Set the log to FortiAnalyzer status: • `disable`: Do not log to FortiAnalyzer (default). • `realtime`: Log to FortiAnalyzer in realtime. • `upload`: Log to FortiAnalyzer at a scheduled time.
upload-time <hh:mm>	Set the time to upload local log files (default = 00:00).

Example

You might enable remote logging to the FortiAnalyzer unit configured. Events at the information level and higher, which is everything except debug level events, would be sent to the FortiAnalyzer unit.

```
config system locallog fortianalyzer setting
   set status enable
   set severity information
end
```

locallog memory setting

Use this command to configure memory settings for local logging purposes.

Syntax

```
config system locallog memory setting
   set diskfull {nolog | overwrite}
   set severity {emergency | alert | critical | error | warning | notification |
        information | debug}
   set status {enable | disable}
end
```

Variable	Description
diskfull {nolog | overwrite}	Enter the action to take when the disk is full: • `nolog`: stop logging when disk full • `overwrite`: overwrite oldest log entries (default)
severity {emergency | alert | critical | error | warning | notification | information | debug}	Select the logging severity level (default = notification). The FortiManager unit logs all messages at and above the logging severity level you select.
status {enable | disable}	Enable/disable logging to the memory buffer (default = disable).

Example

This example shows how to enable logging to memory for all events at the notification level and above. At this level of logging, only information and debug events will not be logged.

```
config system locallog memory
   set severity notification
   set status enable
end
```

locallog syslogd (syslogd2, syslogd3) setting

Use this command to configure the settings for logging to a syslog server. You can configure up to three syslog servers: syslogd, syslogd2 and syslogd3.

Syntax

```
config system locallog {syslogd | syslogd2 | syslogd3} setting
   set csv {enable | disable}
   set facility {alert | audit | auth | authpriv | clock | cron | daemon | ftp | kernel |
        local0 | local1 | local2 | local3 | local4 | local5 | local6 | local7 | lpr |
        mail | news | ntp | syslog | user | uucp}
   set severity {emergency | alert | critical | error | warning | notification |
        information | debug}
   set status {enable | disable}
   set syslog-name <string>
end
```

Variable	Description
csv {enable | disable}	Enable/disable producing the log in comma separated value (CSV) format (default = disable). If you do not enable CSV format the FortiManager unit produces space separated log files.
facility {alert | audit | auth | authpriv | clock | cron | daemon | ftp | kernel | local0 | local1 | local2 | local3 | local4 | local5 | local6 | local7 | lpr | mail | news | ntp | syslog | user | uucp}	Enter the facility type (default = local7). The facility identifies the source of the log message to syslog. Change `facility` to distinguish log messages from different FortiManager units so you can determine the source of the log messages. `local0` to `local7` are reserved for local use.
severity {emergency | alert | critical | error | warning | notification | information | debug}	Select the logging severity level (default = notification). The FortiManager unit logs all messages at and above the logging severity level you select.
status {enable | disable}	Enable/disable logging to the remote syslog server (default = disable).
syslog-name <string>	Enter the remote syslog server name. To configure a syslog server, use the `config system syslog` command. See syslog on page 145 for information.

Example

In this example, the logs are uploaded to a previously configured syslog server named `logstorage`. The FortiManager unit is identified as facility `local0`.

```
config system locallog syslogd setting
   set facility local0
   set syslog-name logstorage
   set status enable
   set severity information
end
```

log

Use the following commands to configure log settings.

log alert

Use this command to configure log based alert settings.

Syntax

```
config system log alert
   set max-alert-count <integer>
end
```

Variable	Description
max-alert-count <integer>	Maximum number of alerts supported (100 - 10000, default = 1000).

log device-selector

Use this command to accept or reject devices matching specified filter types.

Syntax

```
config system log device-selector
   edit <id>
      set action <exclude | include>
      set comment <string>
      set devid <input>
      set expire <string>
      set srcip <input>
      set srcip-mode <TCP514 | UDP514 | any>
      set type <devid | srcip | unspecified>
end
```

Variable	Description
<id>	The ID for the device selector entry.
action <exclude | include>	Include or exclude devices matching specified filter type (default = include).
comment <string>	Additional comment for the selector. This option is not available when the `type` is `unspecified`.
devid <input>	Enter the device ID to be disabled for logging. Wildcard matching supported.
expire <string>	Set the expiration time of the rule. Leave the field unset for no expiration. Duration or formatted date time string are supported. • Duration example: '`1d5h`', meaning 1 day and 5 hours. • Formatted date time string: %Y-%m-%d %H:%M:%S. Supported units for duration: • `d`- day. • `h`- hour. • `m`- minute. • `s`- second.
srcip <input>	Enter the source IP or an IP range. This option is only available when the `type` is `srcip`.
srcip-mode <TCP514 | UDP514 | any>	Apply the selector to UDP/514, TCP/514, or any mode (default = UDP514).
type <devid | srcip | unspecified>	Set the type of the selector. You can filter devices by Device ID, source IP, or leave unspecified (default = unspecified).

fos-policy-stats

Use this command to configure FortiOS policy statistics settings.

Syntax

```
config system log fos-policy-stats
   set retention-days <integer>
   set sampling-interval <integer>
   set status{enable | disable}
end
```

Variable	Description
retention-days <integer>	The number of days that FortiOS policy stats are stored (60 - 1825, default = 365)
sampling-interval <integer>	The interval in which policy stats data are received from FortiOS devices, in minutes (5 - 1440, default = 60)
status {enable | disable}	Enable/disable FortiOS policy statistics feature (default = enable).

log interface-stats

Use this command to configure log based interface statistics settings.

Syntax

```
config system log interface-stats
   set billing-report {enable | disable}
   set retention-days <integer>
   set sampling-interval <integer>
   set status {enable | disable}
end
```

Variable	Description
billing-report {enable | disable}	Enable/disable billing report feature (default = disable).
retention-days <integer>	The number of days that interface data are stored (0 - 2000, default = 100).
sampling-interval <integer>	The interval in which interface data are received from FortiGate devices, in seconds (300 - 86400, default = 1200).
status {enable | disable}	Enable/disable interface statistics (default = enable).

log ioc

Use this command to configure log based IoC (Indicators of Compromise) settings.

Syntax

```
config system log ioc
   set notification {enable | disable}
   set notification-throttle <integer>
   set rescan-max-runner <integer>
   set rescan-run-at <integer>
   set rescan-status {enable | disable}
   set status {enable | disable}
end
```

Variable	Description
notification {enable | disable}	Enable/disable IoC notification (default = enable).
notification-throttle <integer>	Set the minute value for throttling the rate of IoC notifications (1 - 10080, default = 1440).
rescan-max-runner <integer>	Set the maximum number of concurrent IoC rescans (1 to CPU count, default = 8).
rescan-run-at <integer>	Set the hour of the day when IoC rescan runs (1 - 24, 0 = run immediately, default = 24).
rescan-status {enable | disable}	Enable/disable IoC rescan (default = enable).
status {enable | disable}	Enable/disable the IoC feature (default = enable).

log mail-domain

Use this command to configure FortiMail domain settings.

Syntax

```
config system log mail-domain
   edit <id>
      set devices <string>
      set domain <string>
      set vdom <string>
end
```

Variable	Description
<id>	The ID of the FortiMail domain.
devices <string>	The device IDs for domain to VDOM mapping, separated by commas (default = All_FortiMails). For example: `FEVM020000000000,FEVM020000000001`
domain <string>	The FortiMail domain.
vdom <string>	The VDOM name that is mapping to the FortiMail domain.

log ratelimit

Use this command to log the rate limit.

Syntax

```
config system log ratelimit
   set device-ratelimit-default <integer>
   set mode {disable | manual}
   set system-ratelimit <integer>
   config ratelimits
      edit id
         set filter <string>
         set filter-type {adom | devid}
         set ratelimit <integer>
   end
end
```

Variable	Description
device-ratelimit-default <integer>	The default maximum device log rate limit (default = 0). **Note**: This command is only available when the mode is set to `manual`.
mode {disable | manual}	The logging rate limit mode (default = disable).

Variable	Description
	In the manual mode, the system rate limit and the device rate limit both are configurable, no limit if not configured.
system-ratelimit <integer>	The maximum system log rate limit (default = 0). **Note**: This command is only available when the mode is set to `manual`.
ratelimits	The log rate limit.
Variables for `config ratelimits` **subcommand**:	
<id>	The device id.
filter <string>	The device(s) or ADOM filter according to the filter-type setting. **Note**: Wildcard expression is supported.
filter-type {adom | devid}	The device filter type (default = devid): • `adom`: ADOM name. • `devid`: Device ID.
ratelimit <integer>	The maximum device log rate limit (default = 0).

log settings

Use this command to configure settings for logs.

Syntax

```
config system log settings
   set browse-max-logfiles <integer>
   set device-auto-detect {enable | disable}
   set dns-resolve-dstip {enable | disable}
   set download-max-logs <integer>
   set FAC-custom-field1 <string>
   set FCH-custom-field1 <string>
   set FCT-custom-field1 <string>
   set FDD-custom-field1 <string>
   set FGT-custom-field1 <string>
   set FML-custom-field1 <string>
   set FPX-custom-field1 <string>
   set FSA-custom-field1 <string>
   set FWB-custom-field1 <string>
   set ha-auto-migrate {enable | disable}
   set import-max-logfiles <integer>
   set keep-dev-logs {enable | disable}
   set legacy-auth-mode {enable | disable}
   set log-file-archive-name {basic | extended}
   set log-interval-dev-no-logging <interger>
   set log-process-fast-mode {enable | disable}
```

```
    set log-upload-interval-dev-no-logging <interger>
    set sync-search-timeout <integer>
    set unencrypted-logging {enable | disable}
    config {rolling-regular | rolling-local | rolling-analyzer}
       set days {fri | mon| sat | sun | thu | tue | wed}
       set del-files {enable | disable}
       set directory <string>
       set file-size <integer>
       set gzip-format {enable | disable}
       set hour <integer>
       set server <string>
       set server2 <string>
       set server3 <string>
       set log-format {csv | native | text}
       set min <integer>
       set password <passwd>
       set password2 <passwd>
       set password3 <passwd>
       set port <integer>
       set port2 <integer>
       set port3 <integer>
       set rolling-upgrade-status <integer>
       set server-type {ftp | scp | sftp}
       set upload {enable | disable}
       set upload-hour <integer>
       set upload-mode {backup | mirror}
       set upload-trigger {on-roll | on-schedule}
       set username <string>
       set username2 <string>
       set username3 <string>
       set when {daily | none | weekly}
    end
end
```

Variable	Description
browse-max-logfiles <integer>	Maximum number of log files for each log browse attempt, per ADOM (default = 10000).
device-auto-detect {enable | disable}	Enable/disable looking up device ID in syslog received with no encryption (default = enable).
dns-resolve-stip {enable | disable}	Enable/disable resolving destination IP by DNS (default = disable).
download-max-logs <integer>	Maximum number of logs for each log download attempt (default = 100000).
FAC-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FCH-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FCT-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FDD-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FGT-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FML-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).

Variable	Description
FPX-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FSA-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
FWB-custom-field1 <string>	Enter a name of the custom log field to index (character limit = 31).
ha-auto-migrate {enable | disable}	Enabled/disable automatically merging HA member's logs to HA cluster (default = disable).
import-max-logfiles <integer>	Maximum number of log files for each log import attempt (default = 10000).
keep-dev-logs {enable | disable}	Enable/disable keeping the device logs after the device has been deleted (default = disable).
legacy-auth-mode {enable | disable}	Enable/disable legacy mode of device authentication by username/password (default = disable). When disabled, FortiGate, FortiWeb, FortiMail, and other devices that connect through OFTP connection must send the correct certificate that includes the device serial number in the Common Name field. If the correct certificate is not sent with the serial number, FortiManager will fail the OFTP connection.
log-file-archive-name {basic | extended}	Log file name format for archiving. • `basic`: Basic format for log archive file name (default), for example: `FGT20C0000000001.tlog.1417797247.log.` • `extended`: Extended format for log archive file name, for example: `FGT20C0000000001.2014-12-05-08:34:58.tlog.1417797247.log.`
log-process-fast-mode {enable | disable}	Enable/disable log process fast mode (default = disable).
sync-search-timeout <integer>	The maximum amount of time that a log search session can run in synchronous mode, in seconds (1 - 86400, default = 60).
unencrypted-logging {enable | disable}	Enable/disable receiving syslog through UDP(514) or TCP(514) un-encrypted (default = disable).
Variables for `config {rolling-regular | rolling-local | rolling-analyzer}` **subcommand**:	
days {fri | mon| sat | sun | thu | tue | wed}	Log files rolling schedule (days of the week). When `when` is set to `weekly`, you can configure `days`, `hour`, and `min` values.
del-files {enable | disable}	Enable/disable log file deletion after uploading (default = disable).
directory <string>	The upload server directory (character limit = 127).
file-size <integer>	Roll log files when they reach this size, in megabytes (10 - 1000, default = 200).
gzip-format {enable | disable}	Enable/disable compression of uploaded log files (default = disable).
hour <integer>	The hour of the day that log files are rolled (0 - 23, default = 0).
server <string> server2 <string> server3 <string>	Upload server FQDN, IPv4, or IPv6 addresses. Configure up to three servers.
log-format {csv | native | text}	Format of uploaded log files: • `csv`: CSV (comma-separated value) format.

Variable	Description
	• `native`: Native format (text or compact) (default). • `text`: Text format (convert if necessary).
min <integer>	The minute of the hour that log files are rolled (0 - 59, default = 0).
password <passwd> password2 <passwd> password3 <passwd>	Upload server log in passwords (character limit = 128).
port <integer> port2 <integer> port3 <integer>	Upload server IP port number.
rolling-upgrade-status <integer>	The rolling upgrade status.
server-type {ftp | scp | sftp}	Upload server type (default = ftp).
upload {enable | disable}	Enable/disable log file uploads (default = disable).
upload-hour <integer>	The hour of the day that log files are uploaded (0 - 23, default = 0).
upload-mode {backup | mirror}	Configure upload mode with multiple servers. Servers are tried then used one after the other upon failure to connect. • `backup`: Servers are attempted and used one after the other upon failure to connect (default). • `mirror`: All configured servers are attempted and used.
upload-trigger {on-roll | on-schedule}	Event triggering log files upload: • `on-roll`: Upload log files after they are rolled (default). • `on-schedule`: Upload log files daily.
username <string> username2 <string> username3 <string>	Upload server log in usernames (character limit = 35).
when {daily | none | weekly}	Roll log files periodically: • `daily`: Roll log files daily. • `none`: Do not roll log files periodically (default). • `weekly`: Roll log files on certain days of week.

log topology

Use this command to configure settings for the logging topology.

Syntax

```
config system log topology
   set max-depth <integer>
   set max-depth-share <integer>
end
```

Variable	Description
max-depth <integer>	Maximum levels to descend from this device to get the logging topology information (0 - 32, default = 5).
max-depth-share <integer>	Maximum levels to descend from this device to share logging topology information with upstream (0 - 32, default = 5).

log ueba

Use this command to configure UEBA settings.

Syntax

```
config system log ueba
   set hostname-ep-unifier {enable | disable}
   set ip-only-ep {enable | disable}
   set ip-unique-scope {adom | vdom}
end
```

Variable	Description
hostname-ep-unifier {enable | disable}	Disable/Enable hostname as endpoint unifier (default = disable).
ip-only-ep {enable | disable}	Disable/Enable IP-only endpoint identification (default = disable).
ip-unique-scope {adom | vdom}	Set the IP unique scope to ADOM or VDOM (default = vdom). This command is only effective when `ip-only-ep` is enabled.

mail

Use this command to configure mail servers on your FortiManager unit.

Syntax

```
config system mail
   edit <id>
      set auth {enable | disable}
      set auth-type {certificate | psk}
      set from <string>
      set local-cert {Fortinet_Local | Fortinet_Local2}
      set passwd <passwd>
      set port <integer>
      set secure-option {default | none | smtps | starttls}
      set server <string>
      set user <string>
      set ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 |
           tlsv1.3}
```

```
    end
```

Variable	Description
<id>	Enter the mail service ID of the entry you would like to edit or type a new name to create an entry (character limit = 63).
auth {enable | disable}	Enable/disable authentication (default = disable).
auth-type {certificate | psk}	Select the SMTP authentication type (default = psk): • `certificate`: Use local certificate to authenticate. • `psk`: Use username and password to authenticate.
from <string>	Set the SMTP default username for sending.
local-cert {Fortinet_Local | Fortinet_Local2}	Choose from the two available local certificates. This variable is available only when the `auth-type` is `certificate`.
passwd <passwd>	Enter the SMTP account password value (character limit = 63). This variable is available only when the `auth-type` is `psk`.
port <integer>	Enter the SMTP server port (1 - 65535, default = 25).
secure-option {default | none | smtps | starttls}	Select the communication secure option: • `default`:Try STARTTLS, proceed as plain text communication otherwise (default). • `none`: Communication will be in plain text format. • `smtps`: Communication will be protected by SMTPS. • `starttls`: Communication will be protected by STARTTLS.
server <string>	Enter the SMTP server name.
ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocol version for connection to SMTP server.
user <string>	Enter the SMTP account user name. This variable is available only when the `auth-type` is `psk`.

metadata

Use this command to add additional information fields to the administrator accounts of your FortiManager unit.

This command creates the metadata fields. Use `config system admin user` to add data to the metadata fields.

Syntax

```
config system metadata admins
   edit <fieldname>
      set field_length {20 | 50 | 255}
```

```
      set importance {optional | required}
      set status {enabled | disabled}
   end
```

Variable	Description
<fieldname>	Enter the name of the field.
field_length {20 | 50 | 255}	Select the maximum number of characters allowed in this field (default = 50).
importance {optional | required}	Select if this field is required or optional when entering standard information (default = required).
status {enabled | disabled}	Enable/disable the metadata (default = enabled).

ntp

Use this command to configure automatic time setting using a network time protocol (NTP) server.

Syntax

```
config system ntp
   set status {enable | disable}
   config ntpserver
      edit <id>
         set ntpv3 {enable | disable}
         set authentication {enable | disable}
         set key <passwd>
         set key-id <integer>
         set server <string>
         set minpoll <integer>
         set maxpoll <integer>
      end
end
```

Variable	Description
status {enable | disable}	Enable/disable NTP time setting (default = enable).
Variables for `config ntpserver` **subcommand**:	
<id>	Time server ID.
ntpv3 {enable | disable}	Enable/disable NTPv3 (default = disable).
authentication {enable | disable}	Enable/disable MD5 authentication (default = disable).
key <passwd>	The authentication key (character limit = 63).
key-id <integer>	The key ID for authentication (default = 0).
server <string>	Enter the IPv4 or IPv6 address or fully qualified domain name of the NTP server (default = ntpl.fortinet.com).

Variable	Description
minpoll <interger>	Minimum poll interval in seconds as power of 2 (e.g. 6 means 64 seconds, default = 6).
maxpoll <integer>	Maximum poll interval in seconds as power of 2 (e.g. 6 means 64 seconds, default = 10).

password-policy

Use this command to configure access password policies.

Syntax

```
config system password-policy
   set status {enable | disable}
   set minimum-length <integer>
   set must-contain {lower-case-letter non-alphanumeric number upper-case-letter}
   set change-4-characters {enable | disable}
   set expire <integer>
   set login-lockout-upon-downgrade {enable | disable}
end
```

Variable	Description
status {enable | disable}	Enable/disable the password policy (default = disable).
minimum-length <integer>	Set the password's minimum length (8 - 256, default = 8).
must-contain {lower-case-letter non-alphanumeric number upper-case-letter}	Characters that a password must contain. • `lower-case-letter`: the password must contain at least one lower case letter • `non-alphanumeric`: the password must contain at least one non-alphanumeric characters • `number`: the password must contain at least one number • `upper-case-letter`: the password must contain at least one upper case letter.
change-4-characters {enable | disable}	Enable/disable changing at least 4 characters for a new password (default = disable).
expire <integer>	Set the number of days after which admin users' passwords will expire (0 - 3650, 0 = never, default = 0).
login-lockout-upon-downgrade {enable | disable}	Enable/disable administrative user login lockout upon downgrade (defaut = disable). If enabled, downgrading firmware to a lower version where safer passwords are unsupported will lock out administrative users.

report

Use the following command to configure report related settings.

report auto-cache

Use this command to view or configure report auto-cache settings.

Syntax

```
config system report auto-cache
   set aggressive-schedule {enable | disable}
   set order {latest-first | oldest-first}
   set sche-rpt-only {enable | disable}
   set status {enable | disable}
end
```

Variable	Description
aggressive-schedule {enable | disable}	Enable/disable auto-cache on schedule reports aggressively (default = disable).
order {latest-first | oldest-first}	The order of which SQL log table is processed first: • `latest-first`: The newest SQL log table is processed first. • `oldest-first`: The oldest SQL log table is processed first (default).
sche-rpt-only {enable | disable}	Enable/disable auto-cache on scheduled reports only (default = disable).
status {enable | disable}	Enable/disable the SQL report auto-cache (default = enable).

report est-browse-time

Use this command to view or configure report settings.

Syntax

```
config system report est-browse-time
   set max-read-time <integer>
   set status {enable | disable}
end
```

Variable	Description
max-read-time <integer>	Set the read time threshold for each page view (1 - 3600, default = 180).
status {enable | disable}	Enable/disable estimating browse time (default = enable).

report group

Use these commands to configure report groups.

Syntax

```
config system report group
   edit <group-id>
      set adom <adom-name>
      set case-insensitive {enable | disable}
      set report-like <string>
      config chart-alternative
         edit <chart-name>
            set chart-replace <string>
         end
      config group-by
         edit <var-name>
            set var-expression <string>
            set var-type {enum | integer | ip | string}
         end
   end
```

Variable	Description
<group-id>	The identification number of the group to be edited or created.
adom <adom-name>	The ADOM that contains the report group.
case-insensitive {enable | disable}	Enable/disable case sensitivity (default = enable).
report-like <string>	Report pattern.
Variables for `config chart-alternative` **subcommand**:	
<chart-name>	The chart name.
chart-replace <string>	Chart replacement.
Variables for `config group-by` **subcommand**:	
<var-name>	The variable name.
var-expression <string>	Variable expression.
var-type {enum | integer | ip | string}	Variable type (default = string).

report setting

Use these commands to view or configure report settings.

Syntax

```
config system report setting
   set aggregate-report {enable | disable}
```

```
    set capwap-port <integer>
    set capwap-service <string>
    set exclude-capwap {by-port | by-service | disable}
    set hcache-lossless {enable | disable}
    set ldap-cache-timeout <integer>
    set max-pdf-rows <integer>
    set max-table-rows <integer>
    set report-priority {auto | high | low}
    set template-auto-install {default | english}
    set week-start {mon | sun}
end
```

Variable	Description
aggregate-report {enable | disable}	Enable/disable including a group report along with the per-device reports (default = disable).
capwap-port <integer>	Exclude capwap traffic by port (default = 5246).
capwap-service <string>	Exclude capwap traffic by service.
exclude-capwap {by-port | by-service | disable}	Exclude capwap traffic (default = by-port).
hcache-lossless {enable | disable}	Enable/disable ready-with-loss hcaches (default = disable).
ldap-cache-timeout <integer>	Set the LDAP cache timeout in minutes (0 = do not use cache, default = 60).
max-pdf-rows <integer>	Set the maximum number of rows that can be generated in a single PDF (1000 - 1000000, default = 10000).
max-table-rows <integer>	Set the maximum number of rows that can be generated in a single table (10000 - 100000, default = 1000000).
report-priority {auto | high | low}	Set the Priority of the SQL report (default = auto).
template-auto-install {default | english}	Set the language used for new ADOMs (default = default).
week-start {mon | sun}	Set the day that the week starts on, either `sun` (Sunday) or `mon` (Monday) (default = sun).

route

Use this command to view or configure static routing table entries on your FortiManager unit.

Syntax

```
config system route
   edit <seq_int>
      set device <port>
      set dst <dst_ipv4mask>
      set gateway <gateway_ipv4_address>
   end
```

Variable	Description
<seq_int>	Enter an unused routing sequence number to create a new route. Enter an existing route number to edit that route.
device <port>	Enter the port (interface) used for this route.
dst <dst_ipv4mask>	Enter the IPv4 address and mask for the destination network.
gateway <gateway_ipv4_address>	Enter the default gateway IPv4 address for this network.

route6

Use this command to view or configure static IPv6 routing table entries on your FortiManager unit.

Syntax

```
config system route6
   edit <seq_int>
      set device <string>
      set dst <ipv6_prefix>
      set gateway <ipv6_address>
   end
```

Variable	Description
<seq_int>	Enter an unused routing sequence number to create a new route. Enter an existing route number to edit that route.
device <string>	Enter the port (interface) used for this route.
dst <ipv6_prefix>	Enter the IPv6 address and mask for the destination network.
gateway <ipv6_address>	Enter the default gateway IPv6 address for this network.

saml

Use this command to configure global settings for SAML authentication.

Syntax

```
config system saml
   set auth-request-signed {enable | disable}
   set cert <certificate>
   set default-profile <string>
   set forticloud-sso {enable | disable}
   set idp-cert <string>
   set idp-entity-id <string>
   set idp-single-logout-url <string>
```

```
    set idp-single-sign-on-url <string>
    set login-auto-redirect {enable | disable}
    set logout-request-signed {enable | disable}
    set logout-response-signed {enable | disable}
    set role {FAB-SP | IDP | SP}
    set server-address <string>
    set status {enable | disable}
    set user-auto-create {enable | disable}
    set want-assertions-signed {enable | disable}
    config service-providers
       edit <name>
          set idp-entity-id <string>
          set idp-single-logout-url <string>
          set idp-single-sign-on-url <string>
          set prefix <string>
          set sp-adom <string>
          set sp-cert <string>
          set sp-entity-id <string>
          set sp-profile <string>
          set sp-single-logout-url <string>
          set sp-single-sign-on-url <string>
       next
    end
    config fabric-idp
       edit <device-id>
          set idp-cert <string>
          set idp-entity-id <string>
          set idp-single-logout-url <string>
          set idp-single-sign-on-url <string>
          set idp-status {enable | disable}
       next
    end
end
```

Variable	Description
acs-url	The Assertion Consumer Service (acs) URL is set automatically once the `server-address` is configured. You can view the URL using the `get` command. This variable is only available when the `role` is `FAB-SP` or `SP`.
auth-request-signed {enable | disable}	Enable/disable auth request signed (default = disable).
cert <certificate>	The certificate name. This variable is only available when the `status` = `enable` and the `role` = `IDP` or `SP`.
default-profile <string>	The default profile (default = No_Permission_User).
entity-id	The entity ID is set automatically once the `server-address` is configured. You can view the entity ID using the `get` command. This variable is only available when the `role` is `FAB-SP` or `SP`.
forticloud-sso {enable | disable}	Enable/disable FortiCloud SSO (default = disable).
idp-cert <string>	The IDP certificate name.

Variable	Description
	This variable is only available when the `status` = `enable` and the `role` = `SP`.
idp-entity-id <string>	The IDP entity ID. This variable is only available when the `status` = `enable` and the `role` = `SP`.
idp-single-logout-url <string>	The IDP single logout URL. This variable is only available when the `status` = `enable` and the `role` = `SP`.
idp-single-sign-on-url <string>	The IDP single sign-on URL. This variable is only available when the `status` = `enable` and the `role` = `SP`.
login-auto-redirect {enable | disable}	Enable/disable automatic redirect to the IDP login page (default = disable). This variable is only available when the `status` = `enable` and the `role` = `SP`.
logout-request-signed {enable | disable}	Enable/disable logout request signed (default = disable).
logout-response-signed {enable | disable}	Enable/disable logout response signed (default = disable).
role {FAB-SP | IDP | SP}	The SAML role: • `FAB-SP`: Fabric service provider • `IDP`: Identity provider • `SP`: Service provider (default) This variable is only available when the `status` = `enable`.
server-address <string>	The server address.
sls-url	The Single Logout Service (sls) URL is set automatically once the `server-address` is configured. You can view the URL using the `get` command. This variable is only available when the `role` is `FAB-SP` or `SP`.
status {enable | disable}	Enable/disable SAML authentication (default = disable).
user-auto-create {enable | disable}	Enable/disable automatic user creation (default = disable).
want-assertions-signed {enable | disable}	Enable/disable want assertions signed (default = disable).
Variables for `config service-providers` **subcommand**: This command is only available when `role` is `IDP`.	
<name>	Service provide name.
idp-entity-id <string>	The IDP entity ID.
idp-single-logout-url <string>	The IDP single logout URL.
idp-single-sign-on-url <string>	The IDP single sign-on URL.
prefix <string>	The prefix. Can contain only letters and numbers.
sp-adom <string>	The SP ADOM name.

Variable	Description
sp-cert <string>	The SP certificate name.
sp-entity-id <string>	The SP entity ID.
sp-profile <string>	The SP profile name.
sp-single-logout-url <string>	The SP single sign-on URL.
sp-single-sign-on-url <string>	The SP single logout URL.
Variables for `config fabric-idp` **subcommand**: This command is only available when `role` is `FAB-SP`.	
<device-id>	Device ID.
idp-cert <string>	The IDP certificate name.
idp-entity-id <string>	The IDP entity ID.
idp-single-logout-url <string>	The IDP single logout URL.
idp-single-sign-on-url <string>	The IDP single sign-on URL.
idp-status {enable | disable}	Enable/disable SAML authentication (default = disable).

To view the service provider IdP information, use the following commands:

```
config system saml
   config service-providers
      edit <name>
         get
```

Output:

```
name : name
prefix : y9jr06vq0k
sp-cert : (null)
sp-entity-id : http://https://172.27.2.225//metadata/
 sp-single-sign-on-url: https://https://172.27.2.225//saml/?acs
 sp-single-logout-url: https://https://172.27.2.225//saml/?sls
sp-adom: (null)
sp-profile: (null)
idp-entity-id : http://172.27.2.225/saml-idp/y9jr06vq0k/metadata/
idp-single-sign-on-url: https://172.27.2.225/saml-idp/y9jr06vq0k/login/
idp-single-logout-url: https://172.27.2.225/saml-idp/y9jr06vq0k/logout/
```

sniffer

Configure packet sniffing.

Syntax

```
config system sniffer
   edit <id>
```

```
        set host <string>
        set interface <interface>
        set ipv6 {enable | disable}
        set max-packet-count <integer>
        set non-ip {enable | disable}
        set port <string>
        set protocol <string>
        set vlan <string>
    next
end
```

Variable	Description
<id>	Sniffer ID.
host <string>	IP addresses of the hosts to filter for in sniffer traffic. Multiple individual IP addresses and ranges of addresses can be entered.
interface <interface>	The interface to sniff.
ipv6 {enable | disable}	Enable/disable sniffing IPv6 packets.
max-packet-count <integer>	The maximum packet count (1 - 1000000, default - 4000).
non-ip {enable | disable}	Enable/disable sniffing non-IP packets.
port <string>	The ports to sniff. Individual ports or port ranges can be entered.
protocol <string>	Integer value for the protocol type as defined by IANA (0 - 255).
vlan <string>	The VLANs to sniff.

snmp

Use the following commands to configure SNMP related settings.

snmp community

Use this command to configure SNMP communities on your FortiManager unit.

You add SNMP communities so that SNMP managers, typically applications running on computers to monitor SNMP status information, can connect to the FortiManager unit (the SNMP agent) to view system information and receive SNMP traps. SNMP traps are triggered when system events happen such as when there is a system restart, or when the log disk is almost full.

You can add up to three SNMP communities, and each community can have a different configuration for SNMP queries and traps. Each community can be configured to monitor the FortiManager unit for a different set of events.

Hosts are the SNMP managers that make up this SNMP community. Host information includes the IPv4 address and interface that connects it to the FortiManager unit.

For more information on SNMP traps and variables, see the Fortinet Document Library.

Part of configuring an SNMP manager is to list it as a host in a community on the FortiManager unit that it will be monitoring. Otherwise that SNMP manager will not receive any traps or events from the FortiManager unit, and will be unable to query the FortiAnalyzer unit as well.

Syntax

```
config system snmp community
   edit <index_number>
      set events <events_list>
      set name <community_name>
      set query-v1-port <integer>
      set query-v1-status {enable | disable}
      set query-v2c-port <integer>
      set query-v2c-status {enable | disable}
      set status {enable | disable}
      set trap-v1-rport <integer>
      set trap-v1-status {enable | disable}
      set trap-v2c-rport <integer>
      set trap-v2c-status {enable | disable}
      config hosts
         edit <host_number>
            set interface <interface_name>
            set ip <ipv4_address>
         next
      config hosts6
         edit <host_number>
            set interface <interface_name>
            set ip <ipv6_address>
         end
   end
```

Variable	Description
<index_number>	Enter the index number of the community in the SNMP communities table. Enter an unused index number to create a new SNMP community.
events <events_list>	Enable the events for which the FortiManager unit should send traps to the SNMP managers in this community (default = All events enabled). The `raid_changed` event is only available for devices that support RAID. • `cpu-high-exclude-nice`: CPU usage exclude NICE threshold. • `cpu_high`: CPU usage too high. • `disk_low`: Disk usage too high. • `ha_switch`: HA switch. • `intf_ip_chg`: Interface IP address changed. • `lic-dev-quota`: High licensed device quota detected. • `lic-gbday`: High licensed log GB/day detected. • `log-alert`: Log base alert message. • `log-data-rate`: High incoming log data rate detected. • `log-rate`: High incoming log rate detected. • `mem_low`: Available memory is low. • `raid_changed`: RAID status changed.

Variable	Description
	• `sys_reboot`: System reboot.
name <community_name>	Enter the name of the SNMP community. Names can be used to distinguish between the roles of the hosts in the groups. For example the Logging and Reporting group would be interested in the `disk_low` events, but likely not the other events. The name is included in SNMPv2c trap packets to the SNMP manager, and is also present in query packets from, the SNMP manager.
query-v1-port <integer>	Enter the SNMPv1 query port number used when SNMP managers query the FortiManager unit (1 - 65535, default = 161).
query-v1-status {enable | disable}	Enable/disable SNMPv1 queries for this SNMP community (default = enable).
query-v2c-port <integer>	Enter the SNMP v2c query port number used when SNMP managers query the FortiManager unit. SNMP v2c queries will include the name of the community (1 - 65535, default = 161).
query-v2c-status {enable | disable}	Enable/disable SNMPv2c queries for this SNMP community (default = enable).
status {enable | disable}	Enable/disable this SNMP community (default = enable).
trap-v1-rport <integer>	Enter the SNMPv1 remote port number used for sending traps to the SNMP managers (1 - 65535, default = 162).
trap-v1-status {enable | disable}	Enable/disable SNMPv1 traps for this SNMP community (default = enable).
trap-v2c-rport <integer>	Enter the SNMPv2c remote port number used for sending traps to the SNMP managers (1 - 65535, default = 162).
trap-v2c-status {enable | disable}	Enable/disable SNMPv2c traps for this SNMP community. SNMP v2c traps sent out to SNMP managers include the community name (default = enable).
Variables for `config hosts` **subcommand**:	
<host_number>	Enter the index number of the host in the table. Enter an unused index number to create a new host.
interface <interface_name>	Enter the name of the FortiManager unit that connects to the SNMP manager (default = any).
ip <ipv4_address>	Enter the IPv4 address of the SNMP manager.
Variables for `config hosts6` **subcommand**:	
<host_number>	Enter the index number of the host in the table. Enter an unused index number to create a new host.
interface <interface_name>	Enter the name of the FortiManager unit that connects to the SNMP manager (default = any).
ip <ipv6_address>	Enter the IPv6 address of the SNMP manager.

Example

This example shows how to add a new SNMP community named SNMP_Com1. The default configuration can be used in most cases with only a few modifications. In the example below the community is added, given a name, and then because this community is for an SNMP manager that is SNMP v1 compatible, all v2c functionality is disabled. After the community is configured the SNMP manager, or host, is added. The SNMP manager IPv4 address is 192.168.20.34 and it connects to the FortiManager unit internal interface.

```
config system snmp community
   edit 1
   set name SNMP_Com1
   set query-v2c-status disable
   set trap-v2c-status disable
      config hosts
         edit 1
         set interface internal
         set ip 192.168.10.34/24
         end
   end
```

snmp sysinfo

Use this command to enable the FortiManager SNMP agent and to enter basic system information used by the SNMP agent. Enter information about the FortiManager unit to identify it. When your SNMP manager receives traps from the FortiManager unit, you will know which unit sent the information. Some SNMP traps indicate high CPU usage, log full, or low memory.

For more information on SNMP traps and variables, see the Fortinet Document Library.

Syntax

```
config system snmp sysinfo
   set contact-info <string>
   set description <description>
   set engine-id <string>
   set location <location>
   set status {enable | disable}
   set trap-high-cpu-threshold <percentage>
   set trap-low-memory-threshold <percentage>
   set trap-cpu-high-exclude-nice-threshold <percentage>
end
```

Variable	Description
contact-info <string>	Add the contact information for the person responsible for this FortiManager unit (character limit = 255).
description <description>	Add a name or description of the FortiManager unit (character limit = 255).
engine-id <string>	Local SNMP engine ID string (character limit = 24).
location <location>	Describe the physical location of the FortiManager unit (character limit = 255).

Variable	Description
status {enable | disable}	Enable/disable the FortiManager SNMP agent (default = disable).
trap-cpu-high-exclude-nice-threshold <percentage>	SNMP trap for CPU usage threshold (excluding NICE processes), in percent (default = 80).
trap-high-cpu-threshold <percentage>	SNMP trap for CPU usage threshold, in percent (default = 80).
trap-low-memory-threshold <percentage>	SNMP trap for memory usage threshold, in percent (default = 80).

Example

This example shows how to enable the FortiManager SNMP agent and add basic SNMP information.

```
config system snmp sysinfo
   set status enable
   set contact-info 'System Admin ext 245'
   set description 'Internal network unit'
   set location 'Server Room A121'
end
```

snmp user

Use this command to configure SNMPv3 users on your FortiManager unit. To use SNMPv3, you will first need to enable the FortiManager SNMP agent. For more information, see snmp sysinfo. There should be a corresponding configuration on the SNMP server in order to query to or receive traps from FortiManager.

For more information on SNMP traps and variables, see the Fortinet Document Library.

Syntax

```
config system snmp user
   edit <name>
      set auth-proto {md5 | sha}
      set auth-pwd <passwd>
      set events <events_list>
      set notify-hosts <ipv4_address>
      set notify-hosts6 <ipv6_address>
      set notify-port <integer>
      set priv-proto {aes | des}
      set priv-pwd <passwd>
      set queries {enable | disable}
      set query-port <integer>
      set security-level {auth-no-priv | auth-priv | no-auth-no-priv}
   end
end
```

Variable	Description
<name>	Enter a SNMPv3 user name to add, edit, or delete.
auth-proto {md5 | sha}	Authentication protocol. The security level must be set to `auth-no-priv` or `auth-priv` to use this variable: • `md5`: HMAC-MD5-96 authentication protocol • `sha`: HMAC-SHA-96 authentication protocol (default)
auth-pwd <passwd>	Password for the authentication protocol. The security level must be set to `auth-no-priv` or `auth-priv` to use this variable.
events <events_list>	Enable the events for which the FortiManager unit should send traps to the SNMPv3 managers in this community (default = All events enabled). The `raid_changed` event is only available for devices which support RAID. • `cpu-high-exclude-nice`: CPU usage exclude nice threshold. • `cpu_high`: The CPU usage is too high. • `disk_low`: The log disk is getting close to being full. • `ha_switch`: A new unit has become the primary HA. • `intf_ip_chg`: An interface IP address has changed. • `lic-dev-quota`: High licensed device quota detected. • `lic-gbday`: High licensed log GB/Day detected. • `log-alert`: Log base alert message. • `log-data-rate`: High incoming log data rate detected. • `log-rate`: High incoming log rate detected. • `mem_low`: The available memory is low. • `raid_changed`: RAID status changed. • `sys_reboot`: The FortiManager unit has rebooted.
notify-hosts <ipv4_address>	Hosts to send notifications (traps) to.
notify-hosts6 <ipv6_address>	Hosts to send notifications (traps) to.
notify-port <integer>	Set the SNMPv3 trap remote port (default = 162).
priv-proto {aes | des}	Privacy (encryption) protocol. The security level must be set to `auth-no-priv` or `auth-priv` to use this variable: • `aes`: CFB128-AES-128 symmetric encryption protocol (default) • `des`: CBC-DES symmetric encryption protocol
priv-pwd <passwd>	Password for the privacy (encryption) protocol. The security level must be set to `auth-no-priv` or `auth-priv` to use this variable.
queries {enable | disable}	Enable/disable queries for this user (default = enable)
query-port <integer>	SNMPv3 query port (1 - 65535, default = 161).
security-level {auth-no-priv | auth-priv | no-auth-no-priv}	Security level for message authentication and encryption: • `auth-no-priv`: Message with authentication but no privacy (encryption). • `auth-priv`: Message with authentication and privacy (encryption). • `no-auth-no-priv`: Message with no authentication and no privacy (encryption) (default).

soc-fabric

Use this command to configure the SOC Fabric.

Syntax

```
config system soc-fabric
   set name <string>
   set port <integer>
   set role {member | supervisor}
   set secure-connection {enable | disable}
   set status {enable | disable}
   set supervisor <string>
   config trusted-list
      edit <id>
         set serial <string>
      next
   end
end
```

Variable	Description
name <string>	Enter the Fabric name.
port <integer>	Set the communication port (1 - 65535, default = 6443).
role {member | supervisor}	Set the SOC Fabric role (default = member).
secure-connection {enable | disable}	Enable/disable SSL/TLS (default = enable).
status {enable | disable}	Enable/disable SOC Fabric (default = disable).
supervisor <string>	Enter the IP/FQDN of the supervisor.
Variables for`config trusted-list`**subcommand**:	
<id>	Enter the ID for the trusted-list.
serial <string>	Enter a serial number to add to the `trusted-list`. Wildcard (`*`) is supported.

sql

Configure Structured Query Language (SQL) settings.

Syntax

```
config system sql
   set background-rebuild {enable | disable}
   set compress-table-min-age <integer>
   set database-type <postgres>
```

```
    set device-count-high {enable | disable}
    set event-table-partition-time <integer>
    set fct-table-partition-time <integer>
    set prompt-sql-upgrade {enable | disable}
    set start-time <hh>:<mm> <yyyy>/<mm>/<dd>
    set status {disable | local}
    set text-search-index {enable | disable}
    set traffic-table-partition-time <integer>
    set utm-table-partition-time <integer>
    config custom-index
       edit <id>
          set device-type <device>
          set index-field <string>
          set log-type <log type>
       next
    end
    config custom-skipidx
       edit <id>
          set device-type <device>
          set index-field <string>
          set log-type <log type>
       next
    end
    config ts-index-field
       edit <category>
          set <value> <string>
       next
    end
end
```

Variable	Description
background-rebuild {enable | disable}	Disable/enable rebuilding the SQL database in the background (default = enable).
compress-table-min-age <integer>	Minimum age in days for SQL tables to be compressed (0 - 10000, default = 7). **Note:** 0-day allows you to compress SQL tables with less than one-day of age.
database-type <postgres>	Database type (default = postgres).
device-count-high {enable | disable}	Enable/disable a high device count (default = disable). You must set to enable if the count of registered devices is greater than 8000: • `disable`: Set to disable if device count is less than 8000. • `enable`: Set to enable if device count is equal to or greater than 8000.  Enabling or disabling this command will result in an SQL database rebuild. The time required to rebuild the database is dependent on the size of the database. Please plan a maintenance window to complete the database rebuild. This operation will also result in a device reboot.

Variable	Description
event-table-partition-time <integer>	Maximum SQL database table partitioning time range for event logs, in minutes (3 - 1440, 0 = unlimited, default = 0).
fct-table-partition-time <integer>	Maximum SQL database table partitioning time range for FortiClient logs, in minutes (6 - 1440, 0 = unlimited, default = 360).
prompt-sql-upgrade {enable | disable}	Prompt to convert log database into SQL database at start time on GUI (default = enable).
start-time <hh>:<mm> <yyyy>/<mm>/<dd>	The date and time that logs will start to be inserted.
status {disable | local}	SQL database status: • `disable`: Disable SQL database. • `local`: Enable local database (default).
text-search-index {enable | disable}	Enable/disable the creation of a text search index (default = disable).
traffic-table-partition-time <integer>	Maximum SQL database table partitioning time range for traffic logs (1 - 1440, 0 = unlimited, default = 0).
utm-table-partition-time <integer>	Maximum SQL database table partitioning time range in minutes for UTM logs (1 - 1440, 0 = unlimited, default = 0).
Variables for `config custom-index` **subcommand**:	
device-type <device type>	Set the device type.
index-field <string>	Enter a valid field name. Select one of the available field names. The available options for `index-field` is dependent on the `device-type` entry.
log-type <log type>	Enter the log type. The available options for `log-type` is dependent on the `device-type` entry.
Variables for `config custom-skipidx` **subcommand**: List of aditional SQL skip index fields.	
device-type <device type>	Set the device type.
index-field <string>	Enter a valid field name. Select one of the available field names. The available options depend on the `device-type`.
log-type <log type>	Enter the log type. The available options depend on the `device-type`.
Variables for `config ts-index-field` **subcommand**:	

<table>
<tr><th>Variable</th><th>Description</th></tr>
<tr><td><category></td><td>Category of the text search index fields. The following is the list of categories and their default fields.
<table>
<tr><th>Category</th><th>Value</th></tr>
<tr><td>FGT-app-ctrl</td><td>user,group,srcip,dstip,dstport,service,app,action,hostname</td></tr>
<tr><td>FGT-attack</td><td>severity,srcip,dstip,action,user,attack</td></tr>
<tr><td>FGT-content</td><td>from,to,subject,action,srcip,dstip,hostname,status</td></tr>
<tr><td>FGT-dlp</td><td>user,srcip,service,action,filename</td></tr>
<tr><td>FGT-emailfilter</td><td>user,srcip,from,to,subject</td></tr>
<tr><td>FGT-event</td><td>subtype,ui,action,msg</td></tr>
<tr><td>FGT-traffic</td><td>user,srcip,dstip,service,app,utmaction</td></tr>
<tr><td>FGT-virus</td><td>service,srcip,dstip,action,filename,virus,user</td></tr>
<tr><td>FGT-voip</td><td>action,user,src,dst,from,to</td></tr>
<tr><td>FGT-webfilter</td><td>user,srcip,dstip,service,action,catdesc,hostname</td></tr>
<tr><td>FGT-netscan</td><td>user,dstip,vuln,severity,os</td></tr>
<tr><td>FGT-fct-event</td><td>(null)</td></tr>
<tr><td>FGT-fct-traffic</td><td>(null)</td></tr>
<tr><td>FGT-fct-netscan</td><td>(null)</td></tr>
<tr><td>FGT-waf</td><td>user,srcip,dstip,service,action</td></tr>
<tr><td>FGT-gtp</td><td>msisdn,from,to,status</td></tr>
<tr><td>FGT-dns</td><td>(null)</td></tr>
<tr><td>FGT-ssh</td><td>login,srcip,dstip,direction,action</td></tr>
<tr><td>FGT-ssl</td><td>srcip,dstip,eventtype,service,action,reason</td></tr>
<tr><td>FGT-file-filter</td><td>srcip,dstip,service,proto,group,eventtype,filtertype,direction,filetype,matchfiletype,action</td></tr>
</table>
</td></tr>
</table>

Variable	Description	
	Category	**Value**
	FGT-protocol	srcip,dstip,service,proto,action
	FGT-security	srcip,dstip,service,proto
	FML-emailfilter	client_name,dst_ip,from,to,subject
	FML-event	subtype,msg
	FML-history	classifier,disposition,from,to,client_name,direction,domain,virus
	FML-virus	src,msg,from,to
	FWB-attack	http_host,http_url,src,dst,msg,action
	FWB-event	ui,action,msg
	FWB-traffic	src,dst,service,http_method,msg
value <string>	Fields of the text search filter. Enter one or more field names separated with a comma.	

syslog

Use this command to configure syslog servers.

Syntax

```
config system syslog
   edit <name>
      set ip <string>
      set local-cert {Fortinet_Local | Fortinet_Local2}
      set peer-cert-cn <string>
      set port <integer>
      set reliable {enable | disable}
      set secure-connection {enable | disable}
      set ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 |
           tlsv1.3}
   end
end
```

Variable	Description
<name>	Syslog server name.
ip <string>	Enter the syslog server IPv4/IPv6 address or hostname.
local-cert {Fortinet_Local | Fortinet_Local2}	Select from the two available local certificates used for secure connection. This variable is only available when `secure-connection` is enabled.
peer-cert-cn <string>	Certificate common name of syslog server. This variable is only available when `secure-connection` is enabled. **Note:** Null or '-' means no certificate CN for the syslog server.
port <integer>	Enter the syslog server port (1 - 65535, default = 514).
reliable {enable | disable}	Enable/disable reliable connection with syslog server (default = disable).
secure-connection {enable | disable}	Enable/disable connection secured by TLS/SSL (default = disable). This variable is only available when `reliable` is enabled.
ssl-protocol {follow-global-ssl-protocol | sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2 | tlsv1.3}	Set the lowest SSL protocol version for connection to syslog server. This variable is only available when `secure-connection` is enabled.

web-proxy

Use this command to configure the system web proxy.

Syntax

```
config system web-proxy
   set address <string>
   set mode {proxy | tunnel}
   set password <passwd>
   set port <integer>
   set status {enable | disable}
   set username <string>
end
```

Variable	Description
address <string>	Enter the web proxy address.
mode {proxy | tunnel}	Enter the web proxy mode (default = tunnel). • `tunnel` mode uses port TCP/443. • `proxy` mode uses port TCP/80.
password <passwd>	Enter the password for the user name used for authentication (default = *).
port <integer>	Enter the port number of the web proxy (1 - 65535, default = 1080).
status {enable | disable}	Enable/disable system web proxy (default = disable).
username <string>	Enter the user name used for authentication.

workflow approval-matrix

Use this command to configure workflow settings.

Syntax

```
config system workflow approval-matrix
   edit <ADOM_name>
      set mail-server <string>
      set notify <string>
      config approver
         edit <sequence_number>
            set member <string>
      end
end
```

Variable	Description
<ADOM_name>	The name of the ADOM.
mail-server <string>	Enter the mail server IPv4 address or hostname.
notify <string>	Enter the notified users. Use a comma as a separator.
Variables for `config approver` **subcommand**:	
<sequence_number>	Enter the entry number.
member <string>	Enter the members of the approval group. Use a comma as a separator.

Example

This example shows configuring the `admin` administrator as an approver for the `root` ADOM.

```
config system workflow approval-matrix
   edit "root"
      config approver
         edit 1
            set member "admin"
         next
      end
   set mail-server "mail.fortinet.com"
   set notify "admin"
end
```

fmupdate

Use `fmupdate` to configure settings related to FortiGuard service updates and the FortiManager unit's built-in FDS.

CLI commands and variables are case sensitive.

analyzer virusreport	fds-setting	server-override-status
av-ips advanced-log	fwm-setting	service
custom-url-list	multilayer	web-spam fgd-setting
disk-quota	publicnetwork	
fct-services	server-access-priorities	

TCP port numbers cannot be used by multiple services at the same time with the same IP address. If a port is already in use, it cannot be assigned to another service. For example, HTTPS and HTTP cannot have the same port number.

analyzer virusreport

Use this command to enable or disable notification of virus detection to FortiGuard.

Syntax

```
config fmupdate analyzer virusreport
   set status {enable | disable}
end
```

Variable	Description
status {enable | disable}	Enable/disable sending virus detection notification to FortiGuard (default = enable).

Example

This example enables virus detection notifications to FortiGuard.

```
config fmupdate analyzer virusreport
   set status enable
end
```

av-ips advanced-log

Use this command to enable logging of FortiGuard antivirus and IPS update packages received by the FortiManager unit's built-in FDS from the external FDS.

Syntax

```
config fmupdate av-ips advanced-log
   set log-fortigate {enable | disable}
   set log-server {enable | disable}
end
```

Variable	Description
log-fortigate {enable | disable}	Enable/disable logging of FortiGuard antivirus and IPS service updates of FortiGate devices (default = disable).
log-server {enable | disable}	Enable/disable logging of update packages received by the built-in FDS server (default = enable).

Example

You could enable logging of FortiGuard antivirus updates to FortiClient installations and update packages downloaded by the built-in FDS from the FDS.

```
config fmupdate av-ips advanced-log
   set log-forticlient enable
   set log-server enable
end
```

custom-url-list

Use this command to configure the URL database for rating and filtering. You can select to use the FortiGuard URL database, a custom URL database, or both. When selecting to use a custom URL database, use the `fmupdate {ftp | scp | tftp} import` command to import the custom URL list. When FortiManager performs the URL rating, it will check the custom URL first. If a match is found, the custom rating is returned. If there is no match, then FortiManager will check the FortiGuard database.

Syntax

```
config fmupdate custom-url-list
   set db_selection {both | custom-url | fortiguard-db}
end
```

Variable	Description
db_selection {both | custom-url | fortiguard-db}	Manage the FortiGuard URL database: • `both`: Support both custom URL database and the FortiGuard database (default) • `custom-url`: Customer imported URL list. • `fortiguard-db`: Fortinet's FortiGuard database

disk-quota

Use this command to configure the disk space available for use by the Upgrade Manager.

If the Upgrade Manager disk space is full or if there is insufficient space to save an update package to disk, the package will not download and an alert will be sent to notify you.

Syntax

```
config fmupdate disk-quota
   set value <size_int>
end
```

Variable	Description
value <size_int>	Configure the size of the Upgrade Manager disk quota, in megabytes (default = 51200). If you set the disk-quota smaller than the size of an update package, the update package will not download and you will get a disk full alert.

fct-services

Use this command to configure the built-in FDS to provide FortiGuard services to FortiClient installations.

Syntax

```
config fmupdate fct-services
   set status {enable | disable}
   set port <integer>
end
```

Variable	Description
status {enable | disable}	Enable/disable built-in FDS service to FortiClient installations (default = enable).
port <integer>	Enter the port number on which the built-in FDS should provide updates to FortiClient installations (1 - 65535, default = 80).

Example

You could configure the built-in FDS to accommodate older versions of FortiClient installations by providing service on their required port.

```
config fmupdate fct-services
   set status enable
   set port 80
end
```

fds-setting

Use this command to set FDS settings.

Syntax

```
config fmupdate fds-setting
   set fds-clt-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2}
   set fds-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2}
   set fmtr-log {alert | critical | debug | disable | emergency | error | info | notice |
        warn}
   set fortiguard-anycast {enable | disable}
   set fortiguard-anycast-source {aws | fortinet}
   set linkd-log {alert | critical | debug | disable | emergency | error | info | notice
        | warn}
   set max-av-ips-version <integer>
   set max-work <integer>
   set send_report {enable | disable}
   set send_setup {enable | disable}
   set system-support-faz {6.x 7.x}
   set system-support-fct {4.x 5.0 5.2 5.4 5.6 6.0 6.2 6.4 7.0 7.2 7.4}
   set system-support-fdc {3.x 4.x 5.x 6.x}
   set system-support-fgt {5.4 5.6 6.0 6.2 6.4 7.0 7.2 7.4}
   set system-support-fis {1.x 2.x}
   set system-support-fml {4.x 5.x 6.x 7.x}
   set system-support-fsa {1.x 2.x 3.0 3.1 3.2 3.x 4.x 5.x}
   set system-support-fts {3.x 4.x 7.x}
   set umsvc-log {alert | critical | debug | disable | emergency | error | info | notice
        | warn}
   set unreg-dev-option {add-service | ignore | svc-only}
   set User-Agent <text>
   set wanip-query-mode {disable | ipify}
end
```

Variable	Description
fds-clt-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2}	Set the SSL protocols version for connecting FDS server (default = tlsv1.2).
fds-ssl-protocol {sslv3 | tlsv1.0 | tlsv1.1 | tlsv1.2}	Set the SSL protocols version for FDS service (default = tlsv1.0).

Variable	Description
fmtr-log {alert | critical | debug | disable | emergency | error | info | notice | warn}	The fmtr log level. Set to `disable` to disable the log (default = info).
fortiguard-anycast {enable | disable}	Enable/disable use of FortiGuard's anycast network (default = disable).
fortiguard-anycast-source {aws | fortinet}	Configure which servers provide FortiGuard services in FortiGuard's anycast network (default = fortinet).
linkd-log {alert | critical | debug | disable | emergency | error | info | notice | warn}	The linkd log level (default = info).
max-av-ips-version <integer>	The maximum number of AV/IPS full version downloadable packages (default = 20).
max-work <integer>	The maximum number of worker processing downlink requests (default = 1).
send_report {enable | disable}	Enable/disable sending reports to the FDS server (default = enable).
send_setup {enable | disable}	Enable/disable sending setup to the FDS server (default = disable).
system-support-faz {6.x 7.x}	Set the FortiAnalyzer support version.
system-support-fct {4.x 5.0 5.2 5.4 5.6 6.0 6.2 6.4 7.0 7.2 7.4}	Set the FortiClient support version.
system-support-fdc {3.x 4.x 5.x 6.x}	Set the FortiDeceptor support version.
system-support-fgt {5.4 5.6 6.0 6.2 6.4 7.0 7.2 7.4}	Set the FortiGate support version.
system-support-fis {1.x 2.x}	Set the FortiIsolator support version.
system-support-fml {4.x 5.x 6.x 7.x}	Set the FortiMail support version.
system-support-fsa {1.x 2.x 3.0 3.1 3.2 3.x 4.x 5.x}	Set the FortiSandbox support version.
system-support-fts {3.x 4.x 7.x}	Set the FortiTester support version.
umsvc-log {alert | critical | debug | disable | emergency | error | info | notice | warn}	The um_service log level (default = info).
unreg-dev-option {add-service | ignore | svc-only}	Set the option for unregistered devices: • `add-service`: Add unregistered devices and allow update request (default). • `ignore`: Ignore all unregistered devices. • `svc-only`: Allow update request without add unregistered device.

Variable	Description
User-Agent <text>	Configure the User-Agent string.
wanip-query-mode {disable | ipify}	Set the public IP query mode. • `disable`: Do not query public IP (default) • `ipify`: Get public IP through https://api.ipify.org

fds-setting push-override

Use this command to enable or disable push updates, and to override the default IP address and port to which the FDS sends FortiGuard antivirus and IPS push messages.

This is useful if push notifications must be sent to an IP address and/or port other than the FortiManager unit, such as the external or virtual IP address of a NAT device that forwards traffic to the FortiManager unit.

Syntax

```
config fmupdate fds-setting
   config push-override
      set ip <ipv_address>
      set port <integer>
      set status {enable | disable}
   end
end
```

Variable	Description
ip <ipv_address>	Enter the external or virtual IP address of the NAT device that will forward push messages to the FortiManager unit.
port <integer>	Enter the receiving port number on the NAT device (1 - 65535, default = 9443).
status {enable | disable}	Enable/disable the push updates (default = disable).

Example

You could enable the FortiManager unit's built-in FDS to receive push messages.

If there is a NAT device or firewall between the FortiManager unit and the FDS, you could also notify the FDS to send push messages to the external IP address of the NAT device, instead of the FortiManager unit's private network IP address.

```
config fmupdate fds-setting
   config push-override
      set status enable
      set ip 172.16.124.135
      set port 9000
   end
end
```

You would then configure port forwarding on the NAT device, forwarding push messages received on User Datagram Protocol (UDP) port 9000 to the FortiManager unit on UDP port 9443.

fds-setting push-override-to-client

Use this command to define which FortiManager IP addresses/ports are announced to devices for which the FortiManager provides FDS services. By default, FortiManager will announce all its interfaces using the port 8890.

Syntax

```
config fmupdate fds-setting
   config push-override-to-client
      set status {enable | disable}
      config <announce-ip>
         edit <id>
            set ip <ip_address>
            set port <integer>
      end
   end
end
```

Variable	Description
status {enable | disable}	Enable/disable the push updates (default = disable).
Variables for `config announce-ip` **subcommand**:	
<id>	Edit the announce IP address ID (1 - 10).
ip <ip_address>	Enter the announce IP address.
port <integer>	Enter the announce IP port (1 - 65535, default = 8890).

fds-setting server-override

Use this command to override the default IP address and port that the built-in FDS contacts when requesting FortiGuard spam updates.

Syntax

```
config fmupdate fds-setting
   config server-override
      set status {enable | disable}
      config servlist
         edit <id>
            set ip <ipv4_address>
            set ip6 <ipv6_address>
            set port <integer>
            set server-type {fct | fds}
      end
   end
end
```

Variable	Description
status {enable | disable}	Enable/disable the override (default = disable).
Variable for `config servlist` **subcommand**:	
<id>	Enter the override server ID (1 - 10).
ip <ipv4_address>	Enter the IPv4 address of the override server address.
ip6 <ipv6_address>	Enter the IPv6 address of the override server address.
port <integer>	Enter the port number to use when contacting the FDS (1 - 65535, default = 443).
server-type {fct| fds}	Set the override server type (default = fds).

fds-setting update-schedule

Use this command to schedule when the built-in FortiGuard retrieves antivirus and IPS updates.

Syntax

```
config fmupdate fds-setting
   config update-schedule
      set day {Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday}
      set frequency {every | daily | weekly}
      set status {enable | disable}
      set time <hh:mm>
   end
end
```

Variable	Description
day {Sunday | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday}	The day that the update will occur (Sunday - Saturday, default = Monday). This option is only available if the update frequency is `weekly`.
frequency {every | daily | weekly}	The update frequency: every given time interval, once a day, or once a week (default = every).
status {enable | disable}	Enable/disable scheduled updates (default = enable).
time <hh:mm>	The time interval between updates, or the hour and minute when the update occurs (hh: 0 - 23, mm: 0 - 59 or 60 = random, default = 00:10).

fwm-setting

Use this command to configure firmware management settings.

Syntax

```
config fmupdate fwm-setting
```

```
    set auto-scan-fgt-disk {enable | disable}
    set check-fgt-disk {enable | disable}
    set fds-failover-fmg {enable | disable}
    set fds-image-timeout <integer>
    set health-check {enable | disable}
    set immx-source {cloud | fgt | fmg}
    set log {fwm | fwm_dm | fwm_dm_json}
    set max-device-history <integer>
    set max-profile-history <integer>
    set multiple-steps-interval <integer>
    set retry-interval <integer>
    set retry-max <integer>
    set retrieve {enable | disable}
    set revision-diff {enable | disable}
    set send-image-retry <integer>
    config upgrade-timeout
       set check-status-timeout <integer>
       set ctrl-check-status-timeout <integer>
       set ctrl-put-image-by-fds-timeout <integer>
       set ha-sync-timeout <integer>
       set health-check-timeout <integer>
       set license-check-timeout <integer>
       set prepare-image-timeout <integer>
       set put-image-by-fds-timeout <integer>
       set put-image-timeout <integer>
       set reboot-of-fsck-timeout <integer>
       set reboot-of-upgrade-timeout <integer>
       set retrieve-timeout <integer>
       set rpc-timeout <integer>
       set total-timeout <integer>
    end
end
```

Variable	Description
auto-scan-fgt-disk {enable | disable}	Enable/disable automatic scanning of a FortiGate disk when required (default = enable).
check-fgt-disk {enable | disable}	Enable/disable checking a FortiGate disk prior to upgrading the image (default = enable).
fds-failover-fmg {enable | disable}	Enable/disable using the a local image file on the FortiManager when the FDS download fails (default = enable).
fds-image-timeout <integer>	Set the timer for FortiGate image downloads from FortiGuard, in seconds (300 - 3600, default = 1800).
immx-source {cloud | fgt | fmg}	Configure which of the IMMX file to be used for choosing the upgrade patch: • `cloud`: Use the IMMX file for FortiCloud. • `fgt`: Use the IMMX file for FortiGate. • `fmg`: Use the IMMX file for FortiManager. The default file is the one for FortiManager (default = fmg).
log {fwm | fwm_dm | fwm_dm_ json}	Configure log setting for the firmware manager daemon (default = fwm_dm): • `fwm`: Firmware Manager daemon log.

Variable	Description
	• `fwm_dm`: Firmware Manager and deployment service log. • `fwm_dm_json`: Firmware Manager and Deployment service log with JSON data between FortiManager-FortiGate.
max-device-history <integer>	Set the max number of device upgrade report (1-10000, default=100).
max-profile-history <integer>	Set the max number of profile upgrade report (1-10000, default=100).
multiple-steps-interval <integer>	Set the waiting time between multiple step upgrades, in seconds (30 - 180, default = 60).
retry-interval <integer>	Waiting time for resending request to device (1 - 360, default = 60).
retry-max <integer>	Maximum number of retries for sending request to device (0 - 100, default = 10).
send-image-retry <integer>	Set to retry send image when failed. Set to 0 for no retry (0 - 2, default = 0).
Variables for `config upgrade-timeout` **subcommand**:	
check-status-timeout <integer>	Set the timeout for checking status after tunnnel is up, in seconds. (1 - 6000, default = 600)
ctrl-check-status-timeout <integer>	Set the timeout for checking FortiAP/FortiSwitch/FortiExtender status after request upgrade, in seconds. (1 - 12000, default = 1200)
ctrl-put-image-by-fds-timeout <integer>	Set the timeout for waiting device get FortiAP/FortiSwitch/FortiExtender image from FortiGuard, in seconds. (1 - 9000, default = 900)
ha-sync-timeout <integer>	Set the timeout for waiting HA sync, in seconds. (1 - 18000, default = 1800)
health-check-timeout <interger>	Set the timeout for waiting retrieve, in seconds. (1 - 6000, default = 600).
license-check-timeout <integer>	Set the timeout for waiting FortiGate check license, in seconds. (1 - 6000, default = 600)
prepare-image-timeout <integer>	Set the timeout for preparing image, in seconds. (1 - 6000, default = 600)
put-image-by-fds-timeout <integer>	Set the timeout for waiting device get image from FortiGuard, in seconds. (1 - 18000, default = 1800)
put-image-timeout <integer>	Set the timeout for waiting send image over tunnel, in seconds. (1 - 18000, default = 1800)
reboot-of-fsck-timeout <integer>	Set the timeout for waiting FortiGate reboot, in seconds. (1 - 18000, default = 1800)
reboot-of-upgrade-timeout <integer>	Set the timeout for waiting FortiGate reboot after image upgrade, in seconds. (1 - 12000, default = 1200)
retrieve-timeout <integer>	Set the timeout for waiting retrieve, in seconds. (1 - 18000, default = 1800)
rpc-timeout <integer>	Set the timeout for waiting FortiGate rpc response, in seconds. (1 - 1800, default = 180)
total-timeout <integer>	Set the timeout for the whole FortiGate upgrade, in seconds. (1 - 86400, default = 3600)

multilayer

Use this command to set multilayer mode configuration.

Syntax

```
config fmupdate multilayer
   set webspam-rating {enable | disable}
end
```

Variable	Description
webspam-rating {enable | disable}	Enable/disable URL/antispam rating service (default = enable).

publicnetwork

Use this command to enable access to the public FDS. If this function is disabled, the service packages, updates, and license upgrades must be imported manually.

Syntax

```
config fmupdate publicnetwork
   set status {enable | disable}
end
```

Variable	Description
status {enable | disable}	Enable/disable the public network (default = enable).

server-access-priorities

Use this command to configure how a FortiGate unit may download antivirus updates and request web filtering services from multiple FortiManager units and private FDS servers.

Use the `private-server` subcommand to configure multiple FortiManager units and private servers.

By default, the FortiGate unit receives updates from the FortiManager unit if the FortiGate unit is managed by the FortiManager unit and the FortiGate unit was configured to receive updates from the FortiManagerunit.

Syntax

```
config fmupdate server-access-priorities
   set access-public {enable | disable}
   set av-ips {enable | disable}
   set web-spam {enable | disable}
   config private-server
      edit <id>
         set ip <ipv4_address>
         set ip6 <ipv6_address>
         set time_zone <integer>
      end
   end
```

Variable	Description
access-public {enable | disable}	Enable/disable allowing FortiGates to access public FortiGuard servers when private servers are unavailable (default = disable).
av-ips {enable | disable}	Enable/disable receiving antivirus and IPS update service for private servers (default = disable).
web-spam {enable | disable}	Enable/disable Web Filter and Email Filter update service for private servers (default = enable).
Variables for `config private-server` **subcommand**:	
<id>	Enter a number to identify the FortiManager unit or private server (1 - 10).
ip <ipv4_address>	Enter the IPv4 address of the FortiManager unit or private server.
ip6 <ipv6_address>	Enter the IPv6 address of the FortiManager unit or private server.
time_zone <integer>	Enter the correct time zone of the private server (-24 = local time zone, default = -24).

Example

The following example configures access to public FDS servers and allows FortiGate units to receive antivirus updates from other FortiManager units and private FDS servers. This example also configures three private servers.

```
config fmupdate server-access-priorities
   set access-public enable
   set av-ips enable
      config private-server
         edit 1
            set ip 172.16.130.252
         next
         edit 2
            set ip 172.31.145.201
         next
         edit 3
            set ip 172.27.122.99
         end
      end
```

server-override-status

Configure strict or loose server override.

Syntax

```
config fmupdate server-override-status
   set mode {loose | strict}
end
```

Variable	Description
mode {loose | strict}	Set the server override mode: • `loose`: Allow access other servers (default). • `strict`: Access override server only.

service

Use this command to enable or disable the services provided by the built-in FDS.

Syntax

```
config fmupdate service
   set avips {enable | disable}
   set geoip {enable | disable}
   set query-antispam {enable | disable}
   set query-antivirus {enable | disable}
   set query-filequery {enable | disable}
   set query-iot {enable | disable}
   set query-iot-collection {enable | disable}
   set query-iot-vulnerability {enable | disable}
   set query-outbreak-prevention {enable | disable}
   set query-webfilter {enable | disable}
   set webfilter-https-traversal {enable | disable}
end
```

Variable	Description
avips {enable | disable}	Enable/disable the built-in FortiGuard to provide FortiGuard antivirus and IPS updates (default = enable).
geoip {enable | disable}	Enable/disable the built-in FortiGuard to provide GEO-city query (default = enable).
query-antispam {enable | disable}	Enable/disable antispam service (default = disable).
query-antivirus {enable | disable}	Enable/disable antivirus service (default = disable).
query-filequery {enable | disable}	Enable/disable file query service (default = disable).

Variable	Description
query-iot {enable | disable}	Enable/disable IOT query service (default = disable).
query-iot-collection {enable | disable}	Enable/disable IOT collection query service (default = disable).
query-iot-vulnerability {enable | disable}	Enable/disable IOT vulnerability query service (default = disable).
query-outbreak-prevention {enable | disable}	Enable/disable outbreak prevention query service (default = disable).
query-webfilter {enable | disable}	Enable/disable web filter service (default = disable).
webfilter-https-traversal {enable | disable}	Enable/disable Web Filter HTTPS traversal (default = disable).

Example

```
config fmupdate service
   set avips enable
end
```

web-spam fgd-setting

Use this command to configure FortiGuard run parameters.

Syntax

```
config fmupdate web-spam fgd-setting
   set as-cache <integer>
   set as-log {all | disable | nospam}
   set as-preload {enable | disable}
   set av-cache <integer>
   set av-log {all | disable | novirus}
   set av-preload {enable | disable}
   set av2-cache <integer>
   set av2-log {all | disable | noav2}
   set av2-preload {enable | disable}
   set eventlog-query {enable | disable}
   set fgd-pull-interval <integer>
   set fq-cache <integer>
   set fq-log {all | disable | nofilequery}
   set fq-preload {enable | disable}
   set iot-cache <integer>
   set iot-log {all | disable | nofilequery}
   set iot-preload {enable | disable}
   set iotv-preload {enable | disable}
   set linkd-log {enable | disable}
   set max-client-worker <integer>
   set max-log-quota <integer>
   set max-unrated-size <integer>
```

```
    set restrict-as1-dbver <string>
    set restrict-as2-dbver <string>
    set restrict-as4-dbver <string>
    set restrict-av-dbver <string>
    set restrict-av2-dbver <string>
    set restrict-fq-dbver <string>
    set restrict-iots-dbver <string>
    set restrict-wf-dbver <string>
    set stat-log {alert | critical | debug| disable | emergency | error | info | notice |
        warn}
    set stat-log-interval <integer>
    set stat-sync-interval <integer>
    set update-interval <integer>
    set update-log {enable | disable}
    set wf-cache <integer>
    set wf-dn-cache-expire-time <integer>
    set wf-dn-cache-max-number <integer>
    set wf-log {all | disable | nourl}
    set wf-preload {enable | disable}
    config server-override
       set status {enable | disable}
       config servlist
          edit <id>
             set ip <ipv4_address>
             set ip6 <ipv6_address>
             set port <integer>
             set service-type {fgc | fgd | fsa}
          end
       end
end
```

Variable	Description
as-cache <integer>	Antispam service maximum memory usage, in megabytes (maximum = physical memory-1024, 0 = no limit, default = 300).
as-log {all | disable | nospam}	Antispam log setting: • `all`: Log all spam lookups. • `disable`: Disable spam log. • `nospam`: Log non-spam events (default)
as-preload {enable | disable}	Enable/disable preloading the antispam database into memory (default = disable).
av-cache <integer>	Antivirus service maximum memory usage, in megabytes (100 - 500, default = 300).
av-log {all | disable | novirus}	Antivirus log setting: • `all`: Log all virus lookups. • `disable`: Disable virus log. • `novirus`: Log non-virus events (default).
av-preload {enable | disable}	Enable/disable preloading antivirus database to memory (default = disable).
av2-cache <integer>	Antispam service maximum memory usage, in megabytes (physical memory to 1024, 0 = no limit, default = 800).
av2-log {all | disable | novirus}	Outbreak prevention log setting:

Variable	Description
	• `all`: Log all av2 lookups. • `disable`: Disable av2 logs. • `noav2`: Log non-av2 events (default).
av2-preload {enable | disable}	Enable/disable preloading outbreak prevention database to memory (default = disable).
eventlog-query {enable | disable}	Enable/disable record query to event-log besides fgd-log (default = disable).
fgd-pull-interval <integer>	FortiGuard pull interval setting, in minutes (1 - 1440, default = 10).
fq-cache <integer>	File query service maximum memory usage, in megabytes (100 - 500, default = 300).
fq-log {all | disable | nofilequery}	Filequery log setting: • `all`: Log all file query. • `disable`: Disable file query log. • `nofilequery`: Log non-file query events (default).
fq-preload {enable | disable}	Enable/disable preloading the filequery database to memory (default = disable).
iot-cache <integer>	IoT service maximum memory usage, in megabytes (100 - 500, default = 300).
iot-log {all | disable | nofilequery}	IoT log setting (default = nofilequery).
iot-preload {enable | disable}	Enable/disable preloading IoT database to memory (default = disable).
iotv-preload {enable | disable}	Enable/disable preloading IoT-Vulnerability database to memory (default = disable).
linkd-log {alert | critical | debug | disable | emergency | error | info | notice | warn}	Linkd log setting: • `alert`: Immediate action is required. • `critical`: Functionality is affected. • `debug`: Debug information (default). • `disable`: Linkd logging is disabled. • `emergency`: The unit is unusable. • `error`: Functionality is probably affected. • `info`: General information. • `notice`: Information about normal events. • `warn`: Functionality might be affected.
max-client-worker <integer>	Maximum workers to use for TCP client connections (0 - 16, 0 = use CPU count, default = 0).
max-log-quota <integer>	Maximum log quota setting, in megabytes (100 - 20480, default = 6144).
max-unrated-size <integer>	Maximum number of unrated site in memory, in kilobytes(10 - 5120, default = 500).
restrict-as1-dbver <string>	Restrict system update to indicated antispam(1) database version (character limit = 127).
restrict-as2-dbver <string>	Restrict system update to indicated antispam(2) database version (character limit = 127).

Variable	Description
restrict-as4-dbver <string>	Restrict system update to indicated antispam(4) database version (character limit = 127).
restrict-av-dbver <string>	Restrict system update to indicated antivirus database version (character limit = 127).
restrict-av2-dbver <string>	Restrict system update to indicated outbreak prevention database version (character limit = 127).
restrict-fq-dbver <string>	Restrict system update to indicated file query database version (character limit = 127).
restrict-iots-dbver <string>	Restrict system update to indicated file query database version (character limit = 127).
restrict-wf-dbver <string>	Restrict system update to indicated web filter database version (character limit = 127).
stat-log {alert | critical | debug| disable | emergency | error | info | notice | warn}	Statistic log setting (default = `disable`). • `alert`: Immediate action is required (1). • `critical`: Functionality is affected (2). • `debug`: Debug information (7). • `disable`: Linkd logging is disabled. • `emergency`: The unit is unusable (0). • `error`: Functionality is probably affected (3). • `info`: General information (6). • `notice`: Information about normal events (5). • `warn`: Functionality might be affected (4).
stat-log-interval <integer>	Statistic log interval setting, in minutes (1 - 1440, default = 60).
stat-sync-interval <integer>	Synchronization interval for statistic of unrated site in minutes (1 - 60, default = 60).
update-interval <integer>	FortiGuard database update wait time if not enough delta files, in hours (2 - 24, default = 6).
update-log {enable | disable}	Enable/disable update log setting (default = enable).
wf-cache <integer>	Web filter service maximum memory usage, in megabytes (maximum = physical memory-1024, 0 = no limit, default = 600).
wf-dn-cache-expire-time	Web filter DN cache expire time, in minutes (1 - 1440, 0 = never, default = 30).
wf-dn-cache-max-number	Maximum number of Web filter DN cache (0 = disable, default = 10000).
wf-log {all | disable | nourl}	Web filter log setting: • `all`: Log all URL lookups. • `disable`: Disable URL log. • `nourl`: Log non-URL events (default).
wf-preload {enable | disable}	Enable/disable preloading the web filter database into memory (default = disable).
Variables for `config server-override` **subcommand**:	

Variable	Description
status {enable | disable}	Enable/disable the override (default = disable).
<id>	Override server ID (1 - 10).
ip <ipv4_address>	IPv4 address of the override server.
ip6 <ipv6_address>	IPv6 address of the override server.
port <integer>	Port number to use when contacting FortiGuard (1 - 65535, default = 443).
service-type {fgc | fgd | fsa | geoip | iot-collect}	Override service type.

execute

The `execute` commands perform immediate operations on the FortiManager unit. You can:

- Back up and restore the system settings, or reset the unit to factory settings.
- Set the unit date and time.
- Use ping to diagnose network problems.
- View the processes running on the FortiManager unit.
- Start and stop the FortiManager unit.
- Reset or shut down the FortiManager unit.

FortiManager CLI commands and variables are case sensitive.

add-on-license	fgfm	ping	sql-query-generic
add-vm-license	fmpolicy	ping6	sql-report
backup	fmprofile	raid	ssh
benchmark	fmscript	reboot	ssh-known-hosts
bootimage	fmupdate	remove	ssh-list-keys on page 215
certificate	format	reset	ssh-regen-keys
chassis	iotop	reset-sqllog-transfer	tac
console baudrate	iotps	restore	time
date	log	sdns	top
device	log-fetch	sensor	traceroute
dmserver	log-integrity	shutdown	traceroute6
erasedisk	lvm	sql-local	vm-license
factory-license	migrate	sql-query-dataset	

add-on-license

Use this command to load add-on licenses to support more devices with a license key.

Syntax

```
execute add-on-license <license>
```

Variable	Description
<license>	The add-on license string. Copy and paste the string from the license file. The license string must be enclosed with double quotes. Do not removed line breaks from the string.

add-vm-license

Add a VM license to the FortiManager.

This command is only available on FortiManager VM models.

Syntax

```
execute add-vm-license <vm_license>
```

Variable	Description
<vm_license>	The VM license string.

Example

The contents of the license file needs to be in quotes in order for it to work.

```
execute add-vm-license "-----BEGIN FMG VM LICENSE-----
QAAAAJ09s+LTe...ISJTTYPcKoDmMa6
-----END FAZ VM LICENSE-----"
```

api-user

Use this command to generate a key for API users.

Syntax

```
execute api-user generate-key <name>
```

Variable	Description
<name>	Enter the API user name. Optionally, leave blank and press enter to list all API users.

backup

Use this command to backup the configuration or database to a file.

When you back up the unit settings from the vdom_admin account, the backup file contains global settings and the settings for each VDOM. When you back up the unit settings from a regular administrator account, the backup file contains the global settings and only the settings for the VDOM to which the administrator belongs.

An MD5 checksum is automatically generated in the event log when backing up the configuration. You can verify a backup by comparing the checksum in the log entry with that of the backup file.

Syntax

```
execute backup all-settings {ftp | scp | sftp} <ip:port> <string> <username> <passwd>
     <ssh-cert> <crptpasswd>
execute backup fds {ftp | scp | sftp} <ip:port> <string> <username> <passwd> <ssh-cert>
execute backup fgd {ftp | scp | sftp} <ip:port> <string> <username> <passwd> <ssh-cert>
execute backup fmg-logs {ftp | scp | sftp} <ip:port> <string> <username> <passwd> <ssh-
     cert>
execute backup fwm {ftp | scp | sftp} <ip:port> <string> <username> <passwd> <ssh-cert>
execute backup ha {ftp | scp | sftp} <ip:port> <string> <username> <passwd> <ssh-cert>
execute backup logs <device name(s)> {ftp | scp | sftp} <ip/fqdn> <username> <passwd>
     <directory> [vdlist]
execute backup logs-only <device name(s)> {ftp | scp | sftp} <ip/fqdn> <username>
     <passwd> <directory> [vdlist]
execute backup logs-rescue <device serial number(s)> {ftp | scp | sftp} <ip> <username>
     <passwd> <directory> [vdlist]
execute backup reports <report schedule name(s)> {ftp | scp | sftp} <ip/fqdn> <username>
     <passwd> <directory> [vdlist]
execute backup reports-config <adom name(s)> {ftp | scp | sftp} <ip/fqdn> <username>
     <passwd> <directory> [vdlist]
execute backup rtm {ftp | scp | sftp} <device name> <ip:port> <string> <username>
     <passwd> <ssh-cert>
execute backup task {ftp | scp | sftp} <ip:port> <string> <username> <passwd> <ssh-cert>
```

Variable	Description
all-settings	Backup all FortiManager settings to a file on a server.
fds	Backup FortiGuard Distribution Server data.
fgd	Backup FortiGuard data.
fmg-logs	Backup log files.
fwm	Backup firmware management data.
ha	Backup HA logs.
logs	Backup the device logs to a specified server.
logs-only	Backup device logs only to a specified server.

Variable	Description
logs-rescue	Use this hidden command to backup logs regardless of DVM database for emergency reasons. This command will scan folders under /Storage/Logs/ for possible device logs to backup.
reports	Backup the reports to a specified server.
reports-config	Backup reports configuration to a specified server.
rtm	Backup real time monitor data.
task	Backup the task database.
<device name(s)>	Enter the device name(s) separated by a comma, or enter `all` for all devices.
<device serial number(s)>	Enter the device serial number(s) separated by a comma, or enter `all` for all devices.
<report schedule name(s)>	Enter the report schedule name(s) separated by a comma, or enter `all` for all reports schedules.
<adom name(s)>	Enter the ADOM name(s) separated by a comma, or enter `all` for all ADOMs.
{ftp | scp | sftp}	Enter the server type: `ftp`, `scp`, or `sftp`.
<ip:port>	Enter the server IP address and optionally, for FTP servers, the port number.
<ip>	Enter the server IP address.
<ip/fqdn>	Enter the server IP address or fully-qualified domain name (FQDN).
<string>	Enter the path and file name for the backup.
<username>	Enter username to use to log on the backup server.
<passwd>	Enter the password for the username on the backup server. **Note:** You cannot use `\\` in passwords.
<ssh-cert>	Enter the SSH certification for the server. This option is only available for backup operations to SCP servers.
<crptpasswd>	Enter a password to protect backup content.
<directory>	Enter the path to where the file will be backed up to on the backup server.
[vdlist]	List of VDOMs.

Example

This example shows how to backup the FortiManager unit system settings to a file named `fmg.cfg` on a server at IP address 192.168.1.23 using the admin username, a password of 123456.

```
execute backup all-settings ftp 192.168.1.23 fmd.cfg admin 123456
Starting backup all settings in background, please wait.
# Starting transfer the backup file to FTP server...
Transferred 139.237M of 139.237M in 0:00:00s (178.065M/s)
Backup all settings...Ok.
MD5: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
```

benchmark

Use the following commands to test performance.

benchmark io-perf

Use these commands to test IO performance.

Syntax

```
execute benchmark io-perf custom <parameters>
execute benchmark io-perf rand-read [reboot]
execute benchmark io-perf rand-rw [reboot]
execute benchmark io-perf rand-write [reboot]
execute benchmark io-perf seq-read [reboot]
execute benchmark io-perf seq-rw [reboot]
execute benchmark io-perf seq-write [reboot]
execute benchmark io-perf show-last-result <operation>
```

Variable	Description
custom <parameters>	Test IO performance with custom parameters. Enter the following paramaters (format example: `rw=randrw numjobs=8 bs=4 size=4 runtime=60`). • `rw` = Type of I/O pattern. Accepted values are `read`, `write`, `rw` (read and write), `randread` (random read), `randwrite` (random write), and `randrw` (random read and write). • `numjobs` = Number of jobs doing io-perf. • `bs` = The block size in bytes used for I/O units (unit is KB). • `size` = The total size of file I/O for each job (unit is GB). • `runtime` = Limit runtime for io-perf (unit is seconds).
rand-read [reboot]	Test random read IO performance. Enter `reboot` to reboot for io-perf running in clean env.
rand-rw [reboot]	Test random read and write IO performance. Enter `reboot` to reboot for io-perf running in clean env.
rand-write [reboot]	Test random write IO performance. Enter `reboot` to reboot for io-perf running in clean env.
seq-read [reboot]	Test sequential read IO performance. Enter `reboot` to reboot for io-perf running in clean env.
seq-rw [reboot]	Test sequential read and write IO performance. Enter `reboot` to reboot for io-perf running in clean env.
seq-write [reboot]	Test sequential write IO performance. Enter `reboot` to reboot for io-perf running in clean env.
show-last-result <operation>	Show the last io-perf result for one of the following operations:

Variable	Description
	• `all` = All operations • `seq-read` = Sequential read • `seq-write` = Sequential write • `seq-rw` = Sequential read and write • `rand-read` = Random read • `rand-write` = Random write • `rand-rw` = Random read and write • `custom` = Custom io-perf parameters

bootimage

Set the image from which the FortiManager unit will boot the next time it is restarted.

This command is only available on hardware-based FortiManager models.

Syntax

```
execute bootimage <primary | secondary>
```

Variable	Description
{primary | secondary}	Select to boot from either the primary or secondary partition.

If you do not specify primary or secondary, the command will report whether it last booted from the primary or secondary boot image.

If your FortiManager unit does not have a secondary image, the bootimage command will inform you that option is not available.

To reboot your FortiManager unit, use:

```
execute reboot
```

certificate

Use these commands to manage certificates.

certificate ca

Use these commands to list CA certificates, and to import or export CA certificates.

Syntax

To list the CA certificates installed on the FortiManager unit:

```
execute certificate ca list
```

To export or import CA certificates:

```
execute certificate ca export <cert_name> <tftp_ip>
execute certificate ca import <filename> <tftp_ip> <cert_name>
```

Variable	Description
list	Generate a list of CA certificates on the FortiManager system.
<export>	Export CA certificate to TFTP server.
<import>	Import CA certificate from a TFTP server.
<cert_name>	Name of the certificate.
<tftp_ip>	IP address of the TFTP server.
<filename>	File name on the TFTP server.

certificate crl

Use this command to import CRL certificate from a TFTP server.

Syntax

```
execute certificate crl import <filename> <tftp_ip> <cert_name>
```

certificate local

Use these commands to list, import, or export local certificates, and to generate a certificate request

Syntax

```
execute certificate local export <cert_name> <tftp_ip>
execute certificate local import <filename> <tftp_ip> <cert_name>
execute certificate local import-pkcs12 {ftp | scp | sftp} <ip:port> <filename>
     <username> <password> <password> <name>
execute certificate local generate <certificate-name-string> <subject> <number>
     [<optional_information>]
execute certificate local list
```

Variable	Description
export <cert_name> <tftp_ip>	Export a certificate or request to a TFTP server. • `cert_name` - Name of the certificate. • `tftp_ip` - IP address of the TFTP server.
import <filename> <tftp_ip> <cert_name>	Import a signed certificate from a TFTP server.
import-pkcs12 {ftp | scp | sftp} <ip:port> <filename> <username> <password> <password> <name>	Import a certificate and private key from a PKCS#12 file. • `ftp`, `scp`, `sftp` - The type of server the file will be imported from. • `ip:port` - The server IP address and, optional, the port number. • `filename` - The path and file name on the server. • `username` - The user name on the server. • `password` - The user password. • `password` - The file password. • `name` - The certificate name.

generate <certificate-name_str> <subject> <number> [<optional_information>]	Generate a certificate request.
	• `certificate-name-string` - Enter a name for the certificate. The name can contain numbers (0-9), uppercase and lowercase letters (A-Z, a-z), and the special characters - and _. Other special characters and spaces are not allowed.
	• `number` - The size, in bits, of the encryption key, `512`, `1024`, `1536`, or `2048`.
	• `subject` - Enter one of the following pieces of information to identify the FortiManager unit being certified:
	  • The FortiManager unit IP address
	  • The fully qualified domain name of the FortiManager unit
	  • An email address that identifies the FortiManager unit
	  • An IP address or domain name is preferable to an email address.
	• `optional_information` - Enter `optional_information` as required to further identify the unit. See Optional information variables on page 173 for more information.

list	Generate a list of CA certificates and requests that are on the FortiManager system.

Optional information variables

You must enter the optional variables in the order that they are listed in the table. To enter any optional variable you must enter all of the variables that come before it in the list.

For example, to enter the `organization_name_str`, you must first enter the `country_code_str`, `state_name_str`, and `city_name_str`.

While entering optional variables, you can type `?` for help on the next required variable.

Variable	Description
<country_code_str>	Enter the two-character country code.
<state_name_str>	Enter the name of the state or province where the FortiManager unit is located.

Variable	Description
<city_name_str>	Enter the name of the city, or town, where the person or organization certifying the FortiManager unit resides.
<organization-name_str>	Enter the name of the organization that is requesting the certificate for the FortiManager unit.
<organization-unit_name_str>	Enter a name that identifies the department or unit within the organization that is requesting the certificate for the FortiManager unit.
<email_address_str>	Enter a contact email address for the FortiManager unit.
<ca_server_url>	Enter the URL of the CA (SCEP) certificate server that allows auto-signing of the request.
<challenge_password>	Enter the challenge password for the SCEP certificate server.

certificate remote

Use these commands to list, import, or export remote certificates.

Syntax

To list the remote certificates installed on the FortiManager unit:

```
execute certificate remote list
```

To export or import remote certificates:

```
execute certificate remote {<export>|<import>} <cert_name> <tftp_ip>
```

Variable	Description
list	Generate a list of remote certificates on the FortiManager system.
<export>	Export the certificate to TFTP server.
<import>	Import the certificate from a TFTP server.
<cert_name>	Name of the certificate.
<tftp_ip>	IP address of the TFTP server.

chassis

Use this command to replace a chassis device password on your device.

This command is only available on devices that support chassis management.

Syntax

```
execute chassis replace <pw>
```

Variable	Description
<pw>	Replace the chassis password.

console baudrate

Use this command to get or set the console baudrate.

Syntax

```
execute console baudrate [9600 | 19200 | 38400 | 57600 | 115200]
```

If you do not specify a baudrate, the command returns the current baudrate.

Setting the baudrate will disconnect your console session.

Example

Get the baudrate:

```
execute console baudrate
```

The response is displayed:

```
current baud rate is: 9600
```

Set the baudrate to 115200:

```
execute console baudrate 115200
```

date

Get or set the FortiManagersystem date.

Syntax

```
execute date [<date_str>]
```

`date_str` has the form `mm/dd/yyyy`, where

- `mm` is the month and can be `01` to `12`
- `dd` is the day of the month and can be `01` to `31`
- `yyyy` is the year and can be `2001` to `2037`

If you do not specify a date, the command returns the current system date.

Dates entered will be validated - `mm` and `dd` require one or two digits, and `yyyy` requires four digits. Entering fewer digits will result in an error.

Example

This example sets the date to 29 September 2020:

```
execute date 9/29/2020
```

device

Use this command to reset the device database or change a device password, serial number, or user.

device replace

Use this command to change a device password, serial number, or user when changing devices due to a hardware issue.

Syntax

```
execute device replace pw <device_name> <password>
execute device replace sn <device_name> <serial_number>
execute device replace user <device_name> <user>
```

Variable	Description
pw	Replace the device password.
sn	Replace the device serial number.
user	Replace the device user.
<device_name>	The name of the device.
<password>	The new password for the new device.
<serial_number>	The new serial number for the new device, for example: `FWF40C391XXX0062`.
<user>	The new user for the new device.

Example

```
execute device replace pw FGT600C2805030002
This operation will clear the password of the device.
Do you want to continue? (y/n)y
```

device reset

Use this command to force reset the device database to default configuration.

Syntax

```
execute device reset database <name>
```

Variable	Description
<name>	Enter the device name or ID.

dmserver

Use these commands to manage devices and revisions.

dmserver clearrev

Use this command to clear all revisions.

Syntax

```
execute dmserver clearrev <devname>
```

Variable	Description
<devname>	The name of the device.

dmserver delrev

Use this command to delete configuration revisions. The device name will be kept.

Syntax

```
execute dmserver delrev <device_name> <startrev> <endrev>
```

Variable	Description
<device_name>	The name of the device.
<startrev>	The starting configuration revision number that you want to delete.
<endrev>	The ending configuration revision number that you want to delete.

dmserver revlist

Use this command to show a list of revisions for a device.

Syntax

```
execute dmserver revlist <device_name>
```

Variable	Description
<device_name>	The name of the device.

dmserver showconfig

Use this command to show the current configuration of a managed device.

The configuration is fetched from the managed device. If the device is not live or reachable, the FortiManager CLI will display an error code.

Syntax

```
execute dmserver showconfig <device_name>
```

Variable	Description
<device_name>	The name of the device.

dmserver showdev

Use this command to show a list of available devices. For each listed device, this command lists the device ID, device name, and serial number.

Syntax

```
execute dmserver showdev
```

dmserver showrev

Use this command to display a device's configuration revision.

Syntax

```
execute dmserver showrev <device_name> <revision>
```

Variable	Description
<device_name>	The name of the device.
<revision>	The configuration revision you want to display. You can enter a negative revision number, such as `-1`, to display the latest revision.

erasedisk

Overwrite the flash (boot device) with random data a specified number of times. When you run this command, you will be prompted to confirm the request.

Executing this command will overwrite all information on the FortiManager system's flash drive. The FortiManager system will no longer be able to boot up.

Syntax

```
execute erase-disk flash <erase-times>
```

Variable	Description
<erase-times>	Number of times to overwrite the flash with random data (1 - 35, default = 1).

factory-license

Use this command to enter a factory license key. This command is hidden.

Syntax

```
execute factory-license <key>
```

Variables	Description
<key>	The factory license key.

fgfm

Use these commands to reclaim a management tunnel or resync the FGFM (FortiGate to FortiManager) status to device manager.

fgfm reclaim-dev-tunnel

Use this command to reclaim a management tunnel. The device name is optional.

Syntax

```
execute fgfm reclaim-dev-tunnel <device_name> force [admin] [password]
```

Variable	Description
<device_name>	Enter the device name.
force	Optionally, force the tunnel to be reclaimed
[admin]	Optionally, enter the administrator name.
[password]	Optionally, enter the administrator password.

fgfm resync-dev-status

Use this command to resync FGFM status to device manager. The device name is optional.

Syntax

```
execute fgfm resync-dev-status <device_name>
```

Variable	Description
<device_name>	Optionally, enter the device name.

fmpolicy

Use these commands to perform policy and object related actions:

fmpolicy check-upgrade-object

Use this command to check/upgrade objects by syntax.

Syntax

```
execute fmpolicy check-upgrade-object manual {checking | fixing} {basic | auto | misc |
     full}
execute fmpolicy check-upgrade-object report
execute fmpolicy check-upgrade-object reset
```

Variable	Description
<action>	Enter the auto upgrade action: • `manual`: run auto-upgrade manually. • `report`: show checking/upgrade report. • `reset`: cleanup saved checking/upgrade status
{checking | fixing}	• `checking`: only do checking. • `fixing`: checking and fixing.
{basic | auto | misc | full}	• `basic`: only do basic (know cases) checking/fixing. • `auto`: only do auto (syntax based) checking/fixing. • `misc`: only do misc (know cases) checking/fixing. • `full`: do a full basic/auto/misc checking/fixing.

fmpolicy clone-adom-object

Use this command to clone an ADOM object.

Syntax

```
execute fmpolicy clone-adom-object <src-adom> <category> <key> <target-adom> <new-key>
```

Variable	Description
<arc-adom>	Enter the name of the source ADOM.
<category>	Enter the name of the category in the ADOM.
<key>	Enter the name of the object key.
<target-adom>	Enter the name of the target ADOM.
<new-key>	Enter the name of the new key.

fmpolicy copy-adom-object

Use this command to set the policy to copy an ADOM object.

Syntax

```
execute fmpolicy copy-adom-object <adom> <category> <key> <device> <vdom>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<category>	Enter the name of the category in the ADOM.
<key>	Enter the name of the object key.
<device>	Enter the name of the device.
<vdom>	Enter the name of the VDOM.

fmpolicy install-config

Use this command to install the configuration for an ADOM.

Syntax

```
execute fmpolicy install-config <adom> <device_id> <revname>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<device_id>	Enter the device id of the ADOM.
<revname>	Enter the revision name.

fmpolicy link-adom-object

Use this command to link ADOM object to the device DB.

Syntax

```
execute fmpolicy link-adom-object <adom> <category> <key> <device> <vdom>
```

Variable	Description
<adom>	Enter the name of the ADOM: 104: FortiCarrier 148: FortiFirewall 128: Unmanaged_Devices 3: root
<category>	Enter the category name.
<key>	Enter the name of the object key.
<device>	Enter the name of the device.
<vdom>	Enter the name of the VDOM.

fmpolicy print-adom-database

Use this command to display the device database configuration for an ADOM.

Syntax

```
execute fmpolicy print-adom-database <adom_name> <output_filename>
```

fmpolicy print-adom-object

Use this command to display the device objects.

Syntax

```
execute fmpolicy print-adom-object <adom_name>
execute fmpolicy print-adom-object <adom_name> <category> {all | list} <output>
execute fmpolicy print-adom-object Global <category> {all | list} <output>
```

Variable	Description
<adom_name>	Enter the name of the ADOM or “Global”.
<category>	Enter the category name.
{all | list}	• `all`: Show all objects. • `list`: Get all objects.
<output>	Output file name (output dump to file: [`/tmp/pl`]).

fmpolicy print-adom-package

Use this command to display the package for an ADOM.

Syntax

```
execute fmpolicy print-adom-package <adom> <template_name> <package_name> <category_name>
     <object_name> [<output>]
```

Variable	Description
<adom>	Enter the name of the ADOM or “Global”.
<template_name>	Enter the policy package/template name.
<package_name>	Enter the package name ID.
<category_name>	Enter the category name.
<object_name>	Show object by name.

Variable	Description
	• `all`: Show all objects. • `list`: Get all objects.
[<output>]	Output file name (output dump to file: [`/tmp/pl`]).

fmpolicy print-adom-package-assignment

Use this command to display the packages and provisioning templates assignment information for an ADOM.

Syntax

```
execute fmpolicy print-adom-package-assignment <adom> <policy package/template name>
```

Variable	Description
<adom>	Enter the name of the ADOM or “Global”: • `104`: FortiCarrier • `149`: FortiFirewall • `128`: Unmanaged_Devices • `3`: root
<policy package/template name>	Enter the policy package or the template name: • `1`: Policy Packages • `5`: System Templates • `8`: FortiClient Templates • `9`: Threat Weight Templates • `10`: WTP Packages • `14`: FortiExtender Packages • `11`: WAN Templates • `12`: FortiSwitch Packages • `20`: All Non-policy Packages

fmpolicy print-adom-policyblock

Use this command to display the policy block for an ADOM.

Syntax

```
execute fmpolicy print-adom-policyblock <adom> <policy_block_name> <category_name>
     <object_name> <output>
```

Variable	Description
<adom>	Enter the name of the ADOM or “Global”.

Variable	Description
<policy_block_name>	Enter the policy block name ID.
<category_name>	Enter the category name.
<object_name>	Show object by name. • `all`: Show all objects. • `list`: Get all objects.
<output>	Output file name (output dump to file: [`/tmp/pl`]).

fmpolicy print-device-database

Use this command to print the device database configuration.

Syntax

```
execute fmpolicy print-device-database <adom> <device_name> <output>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<device_name>	Enter the name of the device.
<output>	Output file name (output dump to file: [`/tmp/pl`]).

fmpolicy print-device-nonsync-config

Use this command to print the device non-HAsync configuration.

Syntax

```
execute fmpolicy print-device-nonsync-config <adom> <device_name> <member> <output>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<device_name>	Enter the name of the device.
<member>	Enter the HA member's serial number.
<output>	Output file name (output dump to file: [`/tmp/pl`]).

fmpolicy print-device-object

Use this command to display the device objects.

Syntax

```
execute fmpolicy print-device-object <adom> <device_name> <vdom> <category> {<key> |
     list | all} <output>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<device_name>	Enter the name of the device.
<vdom>	Enter the VDOM name.
<category>	Enter the category name.
{<key> | list | all}	• `all`: Show all objects. • `list`: Get all objects.
<output>	Output file name (output dump to file: [`/tmp/pl`]).

fmpolicy promote-adom-object

Use this command to promote an ADOM object.

Syntax

```
execute fmpolicy promote-adom-object <adom> <category> <key> <new-key>
```

Variable	Description
<adom>	Enter the name of the source ADOM.
<category>	Enter the name of the category in the ADOM.
<key>	Enter the name of the object key.
<new-key>	Enter the name of the new key.

fmpolicy unlink-adom-object

Use this command to unlink device-to-adom object reference.

Syntax

```
execute fmpolicy unlink-adom-object <adom> <category> <key> <device> <vdom>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<category>	Enter the category name.

Variable	Description
<key>	Enter the name of the object key.
<device>	Enter the name of the device.
<vdom>	Enter the name of the VDOM.

fmpolicy upload-print-log

Use this command to upload the latest print command logs to a server.

Syntax

```
execute fmpolicy upload-print-log [ftp|scp|sftp] <server> <port> <path> <user> <passwd>
```

Variable	Description
[ftp|scp|sftp]	Enter the type of server to upload the logs to.
<server>	Enter the server IP address or DNS.
<port>	Enter the port number (0 for default).
<path>	Enter the path on the server.
<user>	Enter the username.
<passwd.	Enter the user's password.

fmprofile

Use these commands to perform profile related actions:

fmprofile copy-to-device

Use this command to copy profile settings from a profile to a device.

Syntax

```
execute fmprofile copy-to-device <adom> <profile-id> <device_name>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<profile-id>	Enter the profile ID.
<device_name>	Enter the device ID.

fmprofile delete-profile

Use this command to delete a profile.

Syntax

```
execute fmprofile delete-profile <adom> <profile-id>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<profile-id>	Enter the profile ID.

fmprofile export-profile

Use this command to export profile configurations.

Syntax

```
execute fmprofile export-profile <adom> <profile-id> <output>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<profile-id>	Enter the profile ID.
<output>	Enter the output file name.

fmprofile import-from-device

Use this command to import profile settings from a device to a profile.

Syntax

```
execute fmprofile import-from-device <adom> <device_name> <profile-id>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<device_name>	Enter the device ID.
<profile-id>	Enter the profile ID.

fmprofile import-profile

Use this command to import profile configurations.

Syntax

```
execute fmprofile import-profile <adom> <profile_id> <filename>
```

Variable	Description
<adom>	Enter the name of the ADOM.
<profile-id>	Enter the profile ID.
<filename>	Enter the full path to the input file containing CLI configuration.

fmprofile list-profiles

Use this command to list all profiles in an ADOM.

Syntax

```
execute fmprofile list-profiles <adom_name>
```

Variable	Description
<adom_name>	Enter the name of the ADOM.

fmscript

Use these commands to perform script related actions:

fmscript clean-sched
fmscript clear-tcl-files
fmscript copy
fmscript delete
fmscript export-tcl-files
fmscript import
fmscript list
fmscript list-tcl-files
fmscript run
fmscript run-task
fmscript

fmscript clean-sched

Clean the script schedule table for all non-existing devices.

Syntax

```
execute fmscript clean-sched
```

fmscript clear-tcl-files

Delete all tcl files.

Syntax

```
execute fmscript clear-tcl-files
```

fmscript copy

Copy a script or scripts between ADOMs.

Syntax

```
execute fmscript copy <adom_name> <script ID> <adom> [<prefix>]
```

Variable	Description
<adom_name>	The source ADOM name.
<script ID>	The name of the script to copy (0000 = copy all scripts).
<adom>	The destination ADOM name.
[<prefix>]	Assign the conflict prefix. The default is the ADOM name.

fmscript delete

Delete a script from FortiManager.

fmscript export-tcl-files

Export all tcl files to a remote server.

Syntax

```
execute fmscript export-tcl-files <sftp | scp | ftp> <string> <ip:port> <username>
     <password>
```

Variable	Description
<sftp | scp | ftp>	Enter the transfer protocol.
<string>	Enter the remote path/filename.
<ip:port>	Enter the remote server IP address. Port is optional.
<username>	Enter the remote username.
<password>	Enter the remote password.

Syntax

```
execute fmscript delete <scriptid>
```

Variable	Description
<scriptid>	The name of the script to delete.

fmscript import

Import a script from an FTP server to FortiManager.

Syntax

```
execute fmscript import <ftpserver_ipv4> <filename> <username> <password> <scriptname>
     <scripttype> <comment> <adom_name> <os_type> <os_version> <platform> <device_name>
     <build_number> <hostname> <serial_number>
```

Variable	Description
<ftpserver_ipv4>	The IPv4 address of the FTP server.
<filename>	The filename of the script to be imported to the FortiManager system.
<username>	The user name used to access the FTP server.
<password>	The password used to access the FTP server.
<scriptname>	The name of the script to import.
<scripttype>	The type of script as one of CLI or TCL.
<comment>	A comment about the script being imported, such as a brief description.
<adom_name>	Name of the administrative domain.

Variable	Description
<os_type>	The operating system type, such as FortiOS. Options include `any`, `FortiOS`, and others.
<os_version>	The operating system version, such as FortiOS. Options include `any`, `400`, and `500`.
<platform>	The hardware platform this script can be run on. Options include `any`, or the model of the device such as `Fortigate 60C`.
<device_name>	The device name to run this script on. Options include `any`, or the specific device name as it is displayed on the FortiManager system
<build_number>	The specific build number this script can be run on. Options include `any`, or the three digit build number. Build numbers can be found in the firmware name for the device.
<hostname>	The host name of the device this script can be run on. Options include `any`, or the specific host name.
<serial_number>	The serial number of the device this script can be run on. Options include `any`, or the specific serial number of the device, such as `FGT60C3G28033042`.

fmscript list

List the scripts on the FortiManager device.

Syntax

```
execute fmscript list
```

Example

This is a sample output of the `execute fmscript list` command.

```
FMG400C # execute fmscript list
scriptid=8,name=new account profile,type=CLI
scriptid=7,name=import_script,type=CLI
scriptid=6,name=group1,type=CLIGROUP
scriptid=5,name=basic_test,type=CLI
scriptid=3,name=interface info,type=CLI
scriptid=1,name=xml_script1,type=CLI
```

fmscript list-tcl-files

List exportable tcl files.

Syntax

```
execute fmscript list-tcl-files
```

fmscript run

Run a script on a device, the device's object database, or on the global database. Only CLI scripts can be run on databases, and they must contain only complete commands. Any scripts that use shortened CLI commands will generate errors.

When a script is run on the database, the device will be updated with any configuration changes the next time the configuration is uploaded from the FortiManager system to the device.

Syntax

```
execute fmscript run [adom_name] <scriptid_int> <run_on> <dev/grp/pkgid>
```

Variable	Description
[adom_name]	Name of the administrative domain.
<scriptid_int>	The ID number of the script to run.
<run_on>	Select where to run the script: • `device`: on the device • `group`: on a group • `devicedb`: on the device's object database • `adomdb`: on a specific package • `globaldb`: on the global database
<dev/grp/pkgid>	Enter the name of the device or group, or the ID of the package, to run the script on.

fmscript run-task

Run a script on a device, the device's object database, or on the global database and return a task id (async call). Only CLI scripts can be run on databases, and they must contain only complete commands. Any scripts that use shortened CLI commands will generate errors.

When a script is run on the database, the device will be updated with any configuration changes the next time the configuration is uploaded from the FortiManager system to the device.

Syntax

```
execute fmscript run [adom_name] <scriptid_int> <run_on> <dev/grp/pkgid>
```

Variable	Description
[adom_name]	Name of the administrative domain.
<scriptid_int>	The ID number of the script to run.
<run_on>	Select where to run the script: • `device`: on the device

Variable	Description
	• `group`: on a group • `devicedb`: on the device's object database • `adomdb`: on a specific package • `globaldb`: on the global database
<dev/grp/pkgid>	Enter the name of the device or group, or the ID of the package, to run the script on.

fmscript showlog

Display the log of scripts that have run on the selected device.

Syntax

```
execute fmscript showlog <device_name>
```

Variable	Description
<device_name>	The name of a managed FortiGate device.

Example

This example shows the output of `execute fmscript showlog Dev3` that displays the output from a CLI script called `xml_script1` that was run on the object database.

```
execute fmscript showlog Dev3
Starting log
config firewall address
   edit 33
   set subnet 33.33.33.33 255.255.255.0
config firewall address
   edit 33
Running script(xml_script1) on DB success
cdb_find_entry_by_canon,52:parent=1,category=2,key=(null)
```

fmupdate

Import or export packages using the FTP, SCP, or TFTP servers.

Syntax

```
execute fmupdate {fgd-db-merge | ftp | scp | tftp} import <type> <filename> <server>
     <port> <directory> <username> <password>
execute fmupdate {fgd-db-merge | ftp | scp | tftp} export <type> <filename> <server>
     <port> <directory> <username> <password> [base64 | delta]
```

```
execute fmupdate {fgd-db-merge | ftp | scp | tftp} fds-export <objid> <filename> <server>
     <directory> <username> <password> [base64 | delta]
execute fmupdate fgd-db-merge {as | av | av2 | fq | iot | wf}
```

Variables	Description
{fgd-db-merge | ftp | scp | tftp}	Select the file transfer protocol to use: `ftp`, `scp`, or `tftp`. Select fgd-db-merge to merge the FortiGuard database immediately.
fds-export	Export the AV-IPS package to the FTP server.
fgd-db-merge {as | av | av2 | fq | iot | wf}	Merge FortiGuard database immediately. Select the database type.

<type>	Select the package type to export or import:
	• import:
	  • `package` = fcp package
	  • `license` = license package
	  • `custom-url` = customized URL database
	  • `som` = som.dat default download list
	• export:
	  • `license` = license package
	  • `license-xml` = license info. in xml
	  • `custom-url` = customized URL database
	  • `som` = som.dat default download list

<filename>	Update manager packet file name on the server or host.
<objid>	Enter the object ID (use '–' as a separator).
<port>	Only available when the file transfer protocol is `scp`. Enter the port to connect to on the remote SCP host (1 - 65535).
<server>	Enter the server IP address.
<directory>	Enter the name of the directory of the file to download from the FTP server or SCP host. If the directory name has spaces, use quotes instead.
<username>	Enter the username to log into the FTP server or SCP host.
<password>	Enter the password to log into the FTP server or SCP host.
[base64 | delta]	Optionally, export in base64 format or include delta object.

format

Format the hard disk on the FortiManager system. You can select to perform a secure (deep-erase) format which overwrites the hard disk with random data. You can also specify the number of time to erase the disks.

To format the disk, FortiManager must be in Standalone mode, not in a HA cluster.

Syntax

```
execute format disk <RAID level> [<group>] [deep-erase] [<erase-times>]
```

When you run this command, you will be prompted to confirm the request.

Executing this command will erase all device settings/images, VPN & Update Manager databases, and log data on the FortiManager system's hard drive. The FortiManager device's IP address, and routing information will be preserved.

Variable	Description
disk	Format the hard disk (ext4).
<disk_partition_2>	Format hard disk partition 2 (static)
<disk_partition_2-ext4>	Format hard disk partition 2 (static) with ext4 file system.
<disk_partition_3>	Format hard disk partition 3 (dynamic)
<disk_partition_3-ext4>	Format hard disk partition 3 (dynamic) with ext4 file system.
<disk_partition_4>	Format hard disk partition 4 (misc)
<disk_partition_4-ext4>	Format hard disk partition 4 (misc) with ext4 file system.
deep-erase	Overwrite the hard disk with random data. Selecting this option will take longer than a standard format.
<erase-times>	Number of times to overwrite the hard disk with random data (1 - 35, default = 1).
[<group>]	Enter the number of RAID groups to be used in the RAID array (default = 2). To view the available options, use an asterisk (*). For example: `execute format disk 50 *` The number of groups can only be selected for RAID 50 and RAID 60.  When building a RAID array, select a number of groups that will use all disks. For example, consider a RAID array with 15 disks. Using the default 2 groups (7 disks per group) would leave 1 disk unused. In order to use all disks, it would be better to select 3 groups (5 disks per group).
<RAID level>	Enter the RAID level to be set on the device. This option is only available on FortiManager models that support RAID. Enter `*` to show available RAID levels.

iotop

Use this command to display system processes input/output usage information.

Syntax

```
execute iotop <parameter> <parameter> <parameter> <parameter> <parameter> <parameter>
     <parameter> <parameter>
```

Parameter	Description
--version	Show the program's version number and exit.
-h, --help	Show this help message and exit.
-o, --only	Only show processes or threads that are actually doing I/O.
-b, --batch	Non-interactive mode.
-n NUM, --iter=NUM	The number of iterations before ending (default = infinite).
-d SEC, --delay=SEC	The delay between iterations, in seconds (default = 1).
-p PID, --pid=PID	The processes/threads to monitor (default = all).
-u USER, --user=USER	The users to monitor (default = all).
-P, --processes	Only show processes, not all threads.
-a, --accumulated	Show the accumulated I/O instead of bandwidth.
-k, --kilobytes	Use kilobytes instead of a human friendly unit.
-t, --time	Add a timestamp on each line (implies --batch).
-q, --quiet	Suppress some lines of header (implies --batch).

iotps

Use this command to list system processes sorted by their read/write system call rate.

Syntax

```
execute iotps
```

Variable	Description
<parameter>	Parameters: • `-r` • `-w` • `-e` • `-t [intv]`

log

Use these commands to manage device logs:

log adom disk_quota

Set the ADOM disk quota.

Syntax

```
execute log adom disk_quota <adom_name> <value>
```

Variable	Description
<adom_name>	Enter the ADOM name, or enter `All` for all ADOMs.
<value>	Enter the disk quota value in megabytes.

log device disk_quota

Set the log device disk quota.

Syntax

```
execute log device disk_quota <device_id> <value>
```

Variable	Description
<device_id>	Enter the log device ID number, or `All` for all devices.
<value>	Enter the disk quota value, in megabytes (100 - 5655).

log device permissions

Set or view the log device permissions.

Syntax

```
execute log device permissions <device_id> <permission> {enable | disable}
```

Variable	Description
<device_id>	Enter the log device ID number, or `All` for all devices.
<permission>	The following permissions are available: • `all`: All permissions • `logs`: Log permission • `content`: Content permission • `quar`: Quarantine permission • `ips`: IPS permission
{enable | disable}	Enable/disable the option.

log device vdom

Use this command to add, delete, or list VDOMs.

Syntax

```
execute log device vdom add <device_name> <ADOM> <VDOM>
execute log device vdom delete <device_name> <VDOM>
execute log device vdom delete-by-id <device_name> <Id>
execute log device vdom list <device_name>
```

Variable	Description
add <device_name> <ADOM> <VDOM>	Add a new VDOM to a device with the device name, the ADOM that contains the device, and the name of the new VDOM.
delete <device_name> <VDOM>	Delete a VDOM from a device.
delete-by-id <device_name> <Id>	Delete a VDOM from a device using its ID number.
list <device_name>	List all the VDOMs on a device.

log dlp-files clear

Delete log DLP files.

Syntax

```
execute log dlp-files clear <device_name> <archive type>
```

Variable	Description
<device_name>	Enter the device name.
<archive type>	Enter the device archive type: `all`, `email`, `im`, `ftp`, `http`, or `mms`.

log import

Use this command to import log files from another device and replace the device ID on imported logs.

Syntax

```
execute log import <service> <ip_address> <user-name> <password> <file-name> <device-id>
```

Variable	Description
<service>	Select the file transfer protocol to use: `ftp`, `sftp`, `scp`, or `tftp`.
<ip:port>	Server IP address or host name. Port is optional.
<user-name>	Enter the username.
<password>	Enter the password or – for no password. The `<password>` field is not required when `<service>` is `tftp`.
<file-name>	The file name (e.g. `dir/fgt.alog.log`) or directory name (e.g. `dir/subdir/`).
<device-id>	Replace the device ID on imported logs. Enter a device serial number of one of your log devices.

log ips-pkt clear

Delete IPS packet files.

Syntax

```
execute log ips-pkt clear <device_name>
```

Variable	Description
<device_name>	Enter the device name.

log quarantine-files clear

Delete log quarantine files.

Syntax

```
execute log quarantine-files clear <string>
```

Variable	Description
<string>	Enter the device name.

log storage-warning

Reset the licensed VM storage size warning

Syntax

```
execute log storage-warning reset
```

log-fetch

Use the following commands to fetch logs.

log-fetch client

Use these commands to manage client sessions.

Syntax

```
execute log-fetch client cancel <profile name>
execute log-fetch client list <profile name>
execute log-fetch client pause <profile name>
execute log-fetch client resume <profile name>
execute log-fetch client run <profile name>
execute log-fetch client view <profile name>
```

Variable	Description
cancel <profile name>	Cancel one session.
list <profile name>	List all sessions.
pause <profile name>	Pause one session.
resume <profile name>	Resume one session.
run <profile name>	Start a new session.
view <profile name>	View the session status.

log-fetch server

Use this command to manager the log fetching server.

Syntax

```
execute log-fetch server approve <session id>
execute log-fetch server cancel <session id>
```

```
execute log-fetch server deny <session id>
execute log-fetch server list
execute log-fetch server pause <session id>
execute log-fetch server resume <session id>
execute log-fetch server view <session id>
```

Variable	Description
approve <session id>	Approve a session.
cancel <session id>	Pause and clear one session or all sessions.
deny <session id>	Deny a session.
list	List all sessions.
pause <session id>	Pause a session.
resume <session id>	Resume a session.
view <session id>	View the session.

log-integrity

Query the log file's MD5 checksum and timestamp.

Syntax

```
execute log-integrity <device_name> <vdom name> <log_name>
```

Variable	Description
<device_name>	The name of the log device.
<vdom name>	The VDOM name.
<log_name>	The log file name.

lvm

With Logical Volume Manager (LVM), a FortiManager VM device can have up to fifteen total log disks added to an instance. More space can be added by adding another disk and running the LVM extend command.

This command is only available on FortiManager VM models.

You can use the `execute format disk` command to start the LVM. See format on page 195.

Syntax

```
execute lvm extend
execute lvm hwinfo
execute lvm info
```

Variables	Description
extend	Extend the LVM logical volume.
hwinfo	Show LVM hardware information.
info	Get system LVM information.

migrate

Use this command to migrate all backup settings from the FTP, SCP, or SFTP server. This command also allows migrating to the fabric ADOM from a non-fabric ADOM.

Syntax

```
execute migrate all-settings {ftp | scp | sftp} <ip:port> <string> <username> <password>
     <ssh-cert> [<crptpasswd>]
execute migrate fabric <adom name>
```

Variable	Description
{ftp | scp | sftp}	Enter the server type: `ftp`, `scp`, or `sftp`.
<ip:port>	Enter the server IP address and optionally, for FTP servers, the port number.
<string>	Enter the path and file name for the backup.
<username>	Enter username to use to log on the backup server.
<passwd>	Enter the password for the username on the backup server.
<ssh-cert>	Enter the SSH certification for the server. This option is only available for backup operations to SCP servers.
[<crptpasswd>]	Optional password to protect backup content. Use `any` for no password.
<adom name>	Enter names of the ADOM(s) separated by commas.

ping

Send an ICMP echo request (ping) to test the network connection between the FortiManager system and another network device.

Syntax

```
execute ping <ip | hostname>
```

Variable	Description
<ip | hostname>	IPv4 address or DNS resolvable hostname of network device to contact.

Example

This example shows how to ping a host with the IPv4 address `192.168.1.23`:

```
execute ping 192.168.1.23
```

ping6

Send an ICMP echo request (ping) to test the network connection between the FortiManager system and another network device.

Syntax

```
execute ping6 <ip | hostname>
```

Variable	Description
<ip | hostname>	Enter the IPv6 address or DNS resolvable hostname of network device to contact.

Example

This example shows how to ping a host with the IPv6 address 8001:0DB8:AC10:FE01:0:0:0:0:

```
execute ping6 8001:0DB8:AC10:FE01:0:0:0:0:
```

raid

This command allows you to add and delete RAID disks.

This command is only available on hardware-based FortiManager models that support RAID.

Syntax

```
execute raid add-disk <disk index>
execute raid delete-disk <disk index>
```

Variable	Description
add-disk <disk index>	Add a disk and give it an index number.
delete-disk <disk index>	Delete the specified disk.

reboot

Restart the FortiManager system. This command will disconnect all sessions on the FortiManager system.

Syntax

```
execute reboot
```

remove

Use this command to remove all GUI data cache, all custom settings in Logview, all reports for a specific device, resync files, security fabric from a specific ADOM, and all endpoints and end user related information from files, tables, and memory.

Syntax

```
execute remove endpoints-endusers
execute remove gui-data-cache
execute remove gui-logview-settings
execute remove reports <device-id>
execute remove resync
execute remove security-facbric <adom-name> <security-fabric-name>
```

Variable	Description
<device-id>	The device identifier for the device that all reports are being removed from.
<adom-name>	The ADOM that contains the security fabric that is being removed.
<security-fabric-name>	The security fabric that is being removed.

Example

```
execute remove gui-logview-settings
This operation will Remove all custom settings in GUI LogView and reset to default for
     all users.
Do you want to continue? (y/n)y

Remove all custom settings in GUI LogView ...
Done! Reset all settings in GUI LogView to default.
```

reset

Use this command to reset the FortiManager unit. These commands will disconnect all sessions and restart the FortiManager unit.

Syntax

```
execute reset adom-settings <adom> <version> <mr> <ostype>
execute reset all-except-ip
execute reset all-settings
execute reset all-shutdown
```

Variable	Description
adom-settings <adom> <version> <mr> <ostype>	Reset an ADOM's settings. • `<adom>`: The ADOM name. • `<version>`: The ADOM version. For example, `5` for 5.x releases. • `<mr>`: The major release number. • `<ostype>`: Supported OS type. For example, `18` for FortiDeceptor. This variable is applies to FortiAnalyzer only. For more information, see the FortiAnalyzer CLI Reference.
all-except-ip	Reset all settings except the current IP address and route information.
all-settings	Reset to factory default settings.
all-shutdown	Reset all settings and shutdown.

reset-sqllog-transfer

Use this command to resend SQL logs to the database.

Syntax

```
execute reset-sqllog-transfer <enter>
```

restore

Use this command to restore the configuration or database from a file and change the FortiManager unit image. These commands will disconnect all sessions and restart the FortiManager unit.

Syntax

```
execute restore all-settings {ftp | sftp} <ip:port> <filename> <username> <password>
     <crptpasswd> [option1+option2+...]
execute restore all-settings <scp> <ip:port> <filename> <username> <ssh-cert>
     <crptpasswd> [option1+option2+...]
execute restore image {ftp | scp | sftp} <filepath> <ip:port> <username> <password>
execute restore image tftp <string> <ip>
execute restore logs <device name(s)> {ftp | scp | sftp} <ip> <username> <password>
     <directory> [vdlist]
execute restore logs-only <device name(s)> {ftp | scp | sftp} <ip> <username> <password>
     <directory> [vdlist]
execute restore reports <report name(s)> {ftp | scp | sftp} <ip> <username> <password>
     <directory> [vdlist]
execute restore reports-config {<adom_name> | all} {ftp | scp | sftp} <ip> <username>
     <password> <directory> [full]
```

Variable	Description
all-settings	Restore all FortiManager settings from a file on a server. The new settings replace the existing settings, including administrator accounts and passwords.
image	Upload a firmware image from a(an) FTP/SCP/SFTP/TFTP server to the FortiManager unit. The FortiManager unit reboots, loading the new firmware.
logs	Restore the device logs.
logs-only	Restore only the device logs.
reports	Restore device reports.
reports-config	Restore the reports configuration.
ftp	Restore from an FTP server.
sftp	Restore from a SFTP server.
scp	Restore from an SCP server.
<ip:port>	Enter the IP address of the server to get the file from and optionally , for FTP servers, the port number.
<ip>	Enter the server IP address.
<device name(s)>	Enter the device name(s) separated by a comma, or enter `all` for all devices.
<report name(s)>	Restore specific reports (separated by commas), `all` for all reports, or reports with names containing given pattern. A '`?`' matches any single character. A '`*`' matches any string, including the empty string, e.g.:

Variable	Description
	• `foo`: for exact match • `*foo`: for report names ending with foo • `foo*`: for report names starting with foo • `*foo*`: for report names containing foo substring.
{<adom_name> | all}	Select to backup a specific ADOM or all ADOMs.
<filename>	Enter the file to get from the server. You can enter a path with the filename, if required.
<filepath>	Enter the file to get from the server. You can enter a path with the filename, if required.
<username>	The username to log on to the server. This option is not available for restore operations from TFTP servers.
<password>	The password for username on the server. This option is not available for restore operations from TFTP servers.
<ssh-cert>	The SSH certification for the server. This option is only available for restore operations from SCP servers.
<crptpasswd>	Enter the password that was used to protect backup content. If no password was used for the backup file, use two single quotation marks (`''`) to indicate no password.
[option1+option2+...]	Enter `keepbasic` to retain IP and routing information on the original unit.
<directory>	Enter the directory.
[full]	Reports configuration full restoration.

Example

This example shows how to upload a configuration file from a FTP server to the FortiManager unit. The name of the configuration file on the FTP server is `backupconfig`. No `crptpasswd` was used when backing up the content. The IP address of the FTP server is 192.168.1.23. The user is `admin` with a password of `mypassword`. The configuration file is located in the `/usr/local/backups/` directory on the TFTP server.

```
execute restore all-settings 192.168.1.23 /usr/local/backups/backupconfig admin
     mypassword ''
```

sdns

Use this command to enable and reboot the SDNS system, and to load an SDNS image.

This command is only available on hardware-based FortiManager models .

Syntax

```
execute sdns enable
execute sdns image ftp <filepath> <ip> <username> <password>
```

Variable	Description
enable	Enable and reboot to SDNS system.
image ftp <filepath> <ip> <username> <password>	Load an SDNS image.

sensor

This command lists sensors and readings.

This command is only available on hardware-based FortiManager models.

Syntax

```
execute sensor detail
execute sensor list
```

Variable	Description
detail	List detailed sensors and readings.
list	List sensors and readings.

shutdown

Shut down the FortiManager system. This command will disconnect all sessions.

Syntax

```
execute shutdown
```

sql-local

Use these commands to remove the SQL database and logs from the FortiManager system and to rebuild the database and devices.

When rebuilding the SQL database, new logs will not be available until the rebuild is complete. The time required to rebuild the database is dependent on the size of the database. Please plan a maintenance window to complete the database rebuild. You can use the `diagnose sql status rebuild-db` command to display the SQL log database rebuild status.

The following features will not be available until after the SQL database rebuild has completed: FortiView, Log View, Event Management, and Reports.

Syntax

```
execute sql-local rebuild-adom <adom> ... <adom>
execute sql-local rebuild-db
execute sql-local rebuild-index <adom> <start-time > <end-time>
execute sql-local rebuild-siemdb
execute sql-local rebuild-skipidx <adom> <start-time > <end-time>
```

Variable	Description
rebuild-adom	Rebuild log SQL database from log data for particular ADOMs.
rebuild-db	Rebuild entire log SQL database from log data. This operation will remove the SQL database and rebuild from log data. It will also reboot the device.
rebuild-index	Rebuild indexes for an ADOM.
rebuild-siemdb	Rebuild the SIEM database for normalized logs.
rebuild-skipidx	Rebuild skip-indexes.
<adom>	The ADOM name. Multiple ADOM names can be entered when rebuilding ADOMs.
<start-time >	Enter the start time (timestamp or <yyyy-mm-dd hh:mm:ss>).
<end-time>	Enter the end time (timestamp or <yyyy-mm-dd hh:mm:ss>).
<log type>	Enter the log type from available log types, for example: `emailfilter`

sql-query-dataset

Use this command to execute a SQL dataset against the FortiManager system.

Syntax

```
execute sql-query-dataset <adom_name> <dataset-name> <device/group name> <faz/dev>
     <start-time> <end-time>
```

Variable	Description
<adom_name>	Enter the ADOM name.
<dataset-name>	Enter the SQL dataset name.
<device/group name>	Enter the name of the device or device group.
<faz/dev>	Enter the reference time: FortiAnalyzer time or device time.
<start-time>	Enter the log start time (timestamp or <yyyy-mm-dd hh:mm:ss>).
<end-time>	Enter the log end time (timestamp or <yyyy-mm-dd hh:mm:ss>).

sql-query-generic

Use this command to execute a SQL statement against the FortiManager system.

Syntax

```
execute sql-query-generic <string>
```

Variable	Description
<string>	Specify the SQL statement to be executed.

sql-report

Use these commands to import and display language translation and fonts files, and to run a SQL report once against the FortiManager system.

Syntax

```
execute sql-report delete-font <font-name>
execute sql-report delete-lang <language-name>
execute sql-report delete-template adom-installed <adom> <language> [title]
execute sql-report delete-template device-default <dev-type> <language> [title]
execute sql-report export-lang <language-name> <service> <ip> <argument 1> <argument 2>
     <argument 3>
execute sql-report export-template adom-installed <adom> <service> <ip> <user> <password>
     <file name> [language] [title]
execute sql-report export-template device-default <dev-type> <service> <ip> <user>
     <password> <file name> [language] [title]
```

```
execute sql-report hcache-build <adom> <name/title> <start-time> <end-time>
execute sql-report hcache-check <adom> <name/title> <start-time> <end-time>
execute sql-report import-font <service> <ip> <argument 1> <argument 2> <argument 3>
execute sql-report import-lang <language-name> <service> <ip> <argument 1> <argument 2>
     <argument 3>
execute sql-report import-template <devtype> <service> <ip> <user> <password> <file name>
execute sql-report install-template <adom> <language> <service> <ip> <user> <password>
     <file name>
execute sql-report list <adom> [days-range] [layout-name]
execute sql-report list-fonts
execute sql-report list-lang [language]
execute sql-report list-schedule <adom> [sched-only | autocache-only | detail] [detail]
execute sql-report list-template adom-installed <adom> [language]
execute sql-report list-template device-default <dev-type> [language]
execute sql-report run <adom> <name/title> <start-time> <end-time>
execute sql-report view <data-type> <adom> <report-name> <filter> <view-by>
```

Variable	Description
delete-font	Delete one font.
delete-lang	Delete one language translation file.
delete-template	Delete templates. • `adom-installed` - Delete report templates installed in ADOM. • `device-default` - Delete device type default report templates.
export-lang	Export a user-defined language translation file.
export-template	Export report templates. • `adom-installed` - Export ADOM report templates to file. • `device-default` - Export device type default report templates to file.
hcache-build	Build report hcache.
hcache-check	Check report hcache.
import-font	Import one font.
import-lang	Import a user-defined language translation file.
import-template	Import per device type template from a configuration file.
install-template	Install specific language templates to an ADOM.
list	List recent generated reports.
list-fonts	List all imported fonts.
list-lang	Display all supported language translation files.
list-schedule	List report schedule and autocache information.
list-template	List templates. • `adom-installed` - Display report templates installed in ADOM. • `device-default` - Display device type default report templates.
run	Run a report once.
view	View report data.

Variable	Description
<adom>	Specify the ADOM name.
<font-name>	The name of a font.
<dev-type>	Enter the device type abbreviation: • FGT - FortiGate • FMG - FortiManager • FCT - FortiClient • FML - FortiMail • FWB - FortiWeb • FCH - FortiCache • FAZ - FortiAnalyzer • FSA - FortiSandbox • FDD - FortiDDoS • FAC - FortiAuthenticator • FPX - FortiProxy
<language-name>	Enter the language name to import, export, or delete a language translation file, or select one of the following options: • English • French • Japanese • Korean • Portuguese • Simplified_Chinese • Spanish • Traditional_Chinese
<service>	Enter the transfer protocol: ftp, sftp, scp, or tftp. TFTP is not available for all commands.
<ip>	Enter the server IP address.
<argument 1>	For FTP, SFTP, or SCP, type a user name. For TFTP, enter a file name.
<argument 2>	For FTP, SFTP, or SCP, type a password or '-'. For TFTP, press <enter>.
<argument 3>	Enter a file name and press <enter>.
<user>	Enter a user name for the remote server.
<password>	Enter the password, or –, for the remote server user.
<file name>	Enter the name of the file.
<filter>	Set filter for the data. Enter "" to set no filter.
<data-type>	The data type to view: report-data or report-log.
<report-name>	The name of the report to view.
<name/title>	Select one of the available names or titles.
<start-time>	The start date and time of the report schedule, in the format: "HH:MM yyyy/mm/dd"
<end-time>	The enddate and time of the report schedule, in the format: "HH:MM yyyy/mm/dd"
[days-range]	The recent n days to list reports, from 1 to 99.

Variable	Description
[layout-name]	One of the available SQL report layout names.
[language]	Enter the language abbreviation: • `en` - English • `de` - German • `es` - Spanish • `fr` - French • `it` - Italian • `ja` - Japanese • `ko` - Korean • `pt` - Portuguese • `ru` - Russian • `zh` - Simplified Chinese • `zh_Hant` - Traditional Chinese
[title]	Title of a specific report template.
<view-by>	View the document all or by page, "`view-all`" or "`view-by-page`".

ssh

Use this command to establish an SSH session with another system.

Syntax

```
execute ssh <destination> <username>
```

Variable	Description
<destination>	Enter the IP address or fully qualified DNS resolvable hostname of the system you are connecting to.
<username>	Enter the user name to use to log on to the remote system.

To leave the SSH session type `exit`. To confirm that you are connected or disconnected from the SSH session, verify the command prompt has changed.

ssh-known-hosts

Use these commands to remove all known SSH hosts.

Syntax

```
execute ssh-known-hosts remove-all
execute ssh-known-hosts remove-host <host/ip>
```

Variable	Description
remove-all	Remove all known SSH hosts.
remove-host	Remove the specified SSH hosts. • `<host/IP>` - The hostname or IP address of the SSH host to remove.

ssh-list-keys

Use this command to list SSH host keys fingerprint.

Syntax

```
execute ssh-list-keys
```

ssh-regen-keys

Use this command to regenerate SSH host keys.

Syntax

```
execute ssh-regen-keys
```

tac

Use this command to upload, debug, or remove dangling debug reports older than an hour.

Syntax

```
execute tac cleanup
execute tac report
execute tac upload <service> <ip> <dir> <user name> <password>
```

Variable	Description
<service>	Enter the transfer protocol: `ftp`, `sftp`, or `scp`.
<ip>	Enter the server IP address. For `ftp`, the port can be specified by adding `:port`.
<dir>	Enter the directory.
<user name>	Enter the username.
<password>	Enter the password or enter – for no password.

time

Get or set the system time.

Syntax

```
execute time [<time_str>]
```

Variable	Description
[<time_str>]	The time of day, in the form `hh:mm:ss`. • `hh` is the hour and can be `00` to `23` • `mm` is the minutes and can be `00` to `59` • `ss` is the seconds and can be `00` to `59` All parts of the time are required. Single digits are allowed for each of `hh`, `mm`, and `ss`.

If you do not specify a time, the command returns the current system time.

Example

This example sets the system time to 15:31:03:

```
execute time 15:31:03
```

top

Use this command to view the processes running on the FortiManager system.

Syntax

```
execute top <parameter> <parameter> ... <parameter>
```

Variable	Description
<parameter>	The following parameters can be used: `-hv | -bcHiOSs -d secs -n max -u|U user -p pid(s) -o field -w [cols]`

execute top help menu

Use the following commands when viewing the running processes. Press `h` or `?` for help.

Command	Description
Z,B,E,e	Global: 'Z' colors; 'B' bold; 'E'/'e' summary/task memory scale
l,t,m	Toggle Summary: 'l' load avg; 't' task/cpu stats; 'm' memory info
0,1,2,3,I	Toggle: '0' zeros; '1/2/3' cpus or numa node views; 'I' Irix mode
f,F,X	Fields: 'f'/'F' add/remove/order/sort; 'X' increase fixed-width
L,&,<,> .	Locate: 'L'/'&' find/again; Move sort column: '<'/'>' left/right
R,H,V,J .	Toggle: 'R' Sort; 'H' Threads; 'V' Forest view; 'J' Num justify
c,i,S,j .	Toggle: 'c' Cmd name/line; 'i' Idle; 'S' Time; 'j' Str justify
x,y.	Toggle highlights: 'x' sort field; 'y' running tasks
z,b.	Toggle: 'z' color/mono; 'b' bold/reverse (only if 'x' or 'y')
u,U,o,O .	Filter by: 'u'/'U' effective/any user; 'o'/'O' other criteria
n,#,^O.	Set: 'n'/'#' max tasks displayed; Show: Ctrl+'O' other filter(s)
C,....	Toggle scroll coordinates msg for: up,down,left,right,home,end
k,r	Manipulate tasks: 'k' kill; 'r' renice
d or s	Set update interval
W,Y	Write configuration file 'W'; Inspect other output 'Y'
q or <Esc>	Quit

traceroute

Test the connection between the FortiManager system and another network device, and display information about the network hops between the device and the FortiManager system.

Syntax

```
execute traceroute <host>
```

Variable	Description
<host>	Enter the IPv4 address or hostname of network device.

traceroute6

Test the connection between the FortiManager system and another network device, and display information about the network hops between the device and the FortiManager system.

Syntax

```
execute traceroute6 <host>
```

Variable	Description
<host>	Enter the IPv6 address or hostname of network device.

vm-license

Activate the VM license to the FortiManager by entering the token.

This command is only available on FortiManager VM models.

Syntax

```
execute vm-license <token>
```

Variable	Description
<token>	The VM license token.

diagnose

The `diagnose` commands display diagnostic information that help you to troubleshoot problems.

CLI commands and variables are case sensitive.

auto-delete

Use this command to diagnose auto deletion of DLP files, log files, quarantine files, and report files.

Syntax

```
diagnose auto-delete dlp-files {delete-now | list}
diagnose auto-delete log-files {delete-now | list}
diagnose auto-delete quar-files {delete-now | list}
diagnose auto-delete report-files {delete-now | list}
```

Variable	Description
dlp-files {delete-now | list}	Delete or list DLP files. • `delete-now`: Delete DLP files right now according to system automatic deletion policy. • `list`: List DLP files according to system automatic deletion policy.
log-files {delete-now | list}	Delete or list log files. • `delete-now`: Delete log files right now according to system automatic deletion policy. • `list`: List log files according to system automatic deletion policy.

Variable	Description
quar-files {delete-now | list}	Delete or list quarantine files. • `delete-now`: Delete quarantine files right now according to system automatic deletion policy. • `list`: List quarantine files according to system automatic deletion policy.
report-files {delete-now | list}	Delete or list report files. • `delete-now`: Delete report files right now according to system automatic deletion policy. • `list`: List report files according to system automatic deletion policy.

cdb

Use the following commands for configuration database related settings.

cdb check

Use this command to check and repair configuration database.

Syntax

```
diagnose cdb check adom-integrity [adom]
diagnose cdb check adom-rebuild [adom]
diagnose cdb check adom-revision [adom] [preview]
diagnose cdb check internet-service-name [adom]
diagnose cdb check policy-packages [adom]
diagnose cdb check update-devinfo logdisk-size [new value] [0 | 1] [model-name]
diagnose cdb check update-devinfo sslvpn-flag <devname>
```

Variable	Description
check adom-integrity [adom]	Check and repair the specified ADOM's database.
check adom-rebuild [adom]	Rebuild the specified ADOM.
check adom-revision [adom] [preview]	Check or remove invalid ADOM revision database. Optionally, preview the check before running it.
check internet-service-name [adom]	Check mis-matched internet service name. Optinally, specify the ADOM.
check policy-packages [adom]	Check the policy packages.
check update-devinfo logdisk-size [new value] [0 | 1] [model-name]	Update device log disk size. • `new value`: Item new value. • `0 | 1`: update only empty values (default), or always update (1) • `model-name`: Only update on model name (default: all models).

Variable	Description
check update-devinfo sslvpn-flag <devname>	Upgrade the device SSL-VPN flag on the specified device.

cdb manual-fix

Use this command to manually repair the configuration database.

Syntax

```
diagnose cdb manual-fix adom <adom> <repair action>
```

Variable	Description
adom <adom> <repair action>	Manually repair adom configuration database. Enter the ADOM name. • `cli-templates-path`: update cli template working path • `del-invalid-fmgvar-mapping`: manual delete invalid meta variable mappings • `fw-policy-match-vip`: Fix firewall policy match-vip after adom upgrades from 7.0 to 7.2 • `generate-adom-ca`: Re-generate ADOM CA • `fspvlan-dyn-ipv4allowaccess`: FSP vlan interface dynamic mapping ipv4 allowaccess inherit settings from the parent entry

cdb upgrade

Use this command to upgrade and repair configuration database.

Syntax

```
diagnose cdb upgrade check <action>
diagnose cdb upgrade force-retry <action>
diagnose cdb upgrade log
diagnose cdb upgrade pending-list
diagnose cdb upgrade summary
```

Variable	Description
upgrade check <action>	Perform a check to see if upgrade and repair is necessary. • `objcfg-integrity`: Object config database integrity • `reference-integrity`: Reference table integrity • `object-sequence`: Repair invalid object sequence • `duplicate-uuid`: Reassign duplicated uuid in ADOM database • `resync-dev-vdoms`: Resync and add any missing vdoms from device database to DVM database

Variable	Description
	• `invalid-install-target`: Invalid policy package and template install target • `fw-addr-type`: Firewall address wrong FQDN type • `normalized-intf-devmapping`: Delete invalid device level mapping for normalized interface • `del-orphan-entry`: Delete invalid orphan entries • `user-group-guest`: Drop table of user group guest • `invalid-assign-status`: Invalid assign status entries • `copy-section-title`: Copy section title from previous policy config • `invalid-created-timestamp`: Fix invalid created timestamp • `fix-gl-policy-ssl-profile`: Remove ssl-ssh-profile from global policies with profile-type group • `recover-global-objs`: Recover global objects from local ADOM(s) • `invalid-visibility`: Remove invalid visibility entries from global ADOM • `invalid-global-policies`: Remove invalid global policies • `wtp-prof-platform-mode`: Check and fix wtp prof platform mode • `invalid-global-assignment`: Remove invalid global assignment • `invalid-device-usage`: Remove object's invalid device usage from ADOM • `duplicate-root-node`: Check and fix duplicate ADOM root node
upgrade force-retry <action>	Re-run an upgrade that was already performed in previous release. • `clear-max-policyid` - Clear ADOM max_policyid cache • `refresh-controller-count` - Refresh controller license count • `resync-dbcache` - Resync device database cache
upgrade log	Display the configuration database upgrade log.
upgrade pending-list	Display the list of upgrades scheduled for the next reboot.
upgrade summary	Display the firmware upgrade summary.

debug

Use the following commands to debug the FortiManager.

debug apache

Use these commands to show apache config and log files.

Syntax

```
diagnose debug apache access-log
```

```
diagnose debug apache error-log
diagnose debug apache httpd-config
diagnose debug apache httpd-ssl-config
```

Variable	Description
access-log	Show file access_log.
error-log	Show file error_log.
httpd-config	Show file httpd.conf.
httpd-ssl-config	Show file httpd-ssl.conf.

debug application

Use this command to view or set the debug levels for the FortiManager applications. All of the debug levels are 0 by default.

Syntax

```
diagnose debug application alertmail <integer>
diagnose debug application apiproxyd <integer>
diagnose debug application archd <integer>
diagnose debug application auth <integer>
diagnose debug application clusterd <integer>
diagnose debug application connector <integer>
diagnose debug application csfd <integer>
diagnose debug application curl <integer>
diagnose debug application ddmd <integer> <deviceName>
diagnose debug application depmanager <integer>
diagnose debug application dhcpcd <integer>
diagnose debug application dmapi <integer>
diagnose debug application dmsase <integer>
diagnose debug application dmssh <integer>
diagnose debug application dns <integer>
diagnose debug application docker <integer>
diagnose debug application dump
diagnose debug application execmd <integer>
diagnose debug application fabricsyncd <integer>
diagnose debug application fazalertd <integer>
diagnose debug application fazcfgd <integer>
diagnose debug application fazmaild <integer>
diagnose debug application faznotify <integer>
diagnose debug application fazsvcd <integer> <reg exp filter>
diagnose debug application fazwatchd <integer>
diagnose debug application fdssvrd <integer>
diagnose debug application fgdlinkd <integer>
diagnose debug application fgdsvr <integer>
diagnose debug application fgdupd <integer>
diagnose debug application fgfmsd <integer> <deviceName>
diagnose debug application filefwd <integer>
diagnose debug application fileparsed <integer>
diagnose debug application fortilogd <integer>
diagnose debug application FortiManagerws <integer>
```

```
diagnose debug application fortimeter <integer>
diagnose debug application fsvrd <integer>
diagnose debug application gui <integer>
diagnose debug application ha <integer>
diagnose debug application ipsec <integer>
diagnose debug application keepalived <integer>
diagnose debug application lldp <integer>
diagnose debug application localmod <integer>
diagnose debug application logd <integer>
diagnose debug application log-fetchd <integer>
diagnose debug application logfiled <integer>
diagnose debug application logfwd <integer>
diagnose debug application lrm <integer>
diagnose debug application mapclient <integer>
diagnose debug application oftpd <integer> <IP/deviceSerial/deviceName>
diagnose debug application ptmgr <integer>
diagnose debug application ptsessionmgr <integer>
diagnose debug application rptchkd <integer>
diagnose debug application rptsched <integer>
diagnose debug application rtmmond <integer>
diagnose debug application run-sql-rpt <integer>
diagnose debug application scansched <integer>
diagnose debug application scheduled <integer>
diagnose debug application sdnproxy <integer>
diagnose debug application securityconsole <integer>
diagnose debug application siemagentd <integer>
diagnose debug application siemdbd <integer>
 diagnose debug application sniffer <integer>
diagnose debug application snmpd <integer>
diagnose debug application sql-integration <integer>
diagnose debug application sqllogd <integer>
diagnose debug application sqlplugind <integer> <filter>
diagnose debug application sqlreportd <integer> <filter>
diagnose debug application sqlrptcached <integer>
diagnose debug application srchd <integer>
diagnose debug application ssh <integer>
diagnose debug application sshd <integer>
diagnose debug application storaged <integer>
diagnose debug application syncsched <integer>
diagnose debug application uploadd <integer>
diagnose debug application vmd <integer>
```

Variable	Description
alertmail <integer>	Set the debug level of the alert email daemon.
apiproxyd <integer>	Set the debug level of the API proxy daemon.
archd <integer>	Set the debug level of the archd daemon (0 - 8).
auth <integer>	Set the debug level of the Fortinet authentication module.
clusterd <integer>	Set the debug level of the clusterd daemon.
connector <integer>	Set the debug level of the connector daemon.
csfd <integer>	Set the debug level of the Security Fabric daemon.

Variable	Description
curl <integer>	Set the debug level of the curl daemon. Use this CLI command to enable debug for monitoring progress when performing a backup/restore of a large database via FTP.
ddmd <integer> <deviceName>	Set the debug level of the dynamic data monitor. Enter a device name to only show messages related to that device. **Note:** Enter "" to reset.
depmanager <integer>	Set the debug level of the deployment manager.
dhcpcd <integer>	Set the debug level of the dhcpcd daemon.
dmworker <integer>	Set the debug level of the deployment manager worker.
dmapi <integer>	Set the debug level of the dmapi daemon.
dmsase <integer>	Set the debug level for the deployment manager SASE handler (0 - 8).
dmssh <integer>	Set the debug level of the deployment manager SSH.
dns <integer>	Set the debug level of the DNS daemon.
docker <integer>	Set the debug level of the Docker daemon.
dump	Dump services.
execmd <integer>	Set the debug level of the execmd daemon.
fabricsyncd <integer>	Set the debug level of the fabricsyncd daemon (0 - 8).
fazalertd <integer>	Set the debug level of the fazalertd daemon (0 - 8).
fazcfgd <integer>	Set the debug level of the fazcfgd daemon.
fazmaild <integer>	Set the debug level of the fazmaild daemon.
faznotify <integer>	Set the debug level of the faznotify daemon.
fazsvcd <integer> <reg exp filter>	Set the debug level of the FAZ server daemon. Set a filter; use "" to reset. Debug logs can be filtered using simple string, regular expression, or not operator. For example, use `filter=~!request|response` to remove all requests and responses from the debug logs.
fazwatchd <integer>	Set the debug level of the fazwatchd daemon.
fdssvrd <integer>	Set the debug level of the FDS server daemon.
fgdlinkd <integer>	Set the debug level of the FGD server daemon (0 - 8).
fgdsvr <integer>	Set the debug level of the FortiGuard query daemon.
fgdupd <integer>	Set the debug level of the FortiGuard update daemon.
fgfmsd <integer> <deviceName>	Set the debug level of FGFM daemon. Enter a device name to only show messages related to that device. **Note:** Enter "" to reset. Multiple device names should be separated by commas. For example, `Host1, Host2`.

Variable	Description
filefwd <integer>	Set the debug level of the filefwd daemon.
fileparsed <integer>	Set the debug level of the fileparsed daemon.
fortilogd <integer>	Set the debug level of the fortilogd daemon.
fortimanagerws <integer>	Set the debug level of the FortiManager Web Service.
fortimeter <integer>	Set the debug level of the Fortimeter.
fsvrd <integer>	Set the debug level of the FortiService daemon.
gui <integer>	Set the debug level of the GUI.
ha <integer>	Set the debug level of high availability daemon.
ipsec <integer>	Set the debug level of the IPsec daemon.
keepalived <integer>	Set the debug level of the keepalived daemon.
lldp <integer>	Set the debug level of the link layer discovery protocol (LLDP) daemon.
localmod <integer>	Set the debug level of the localmod daemon.
logd <integer>	Set the debug level of the log daemon.
log-fetched <integer>	Set the debug level for the log-fetched.
logfiled <integer>	Set the debug level of the logfilled daemon.
logfwd <integer>	Set the debug level of the logfwd daemon.
lrm <integer>	Set the debug level of the Log and Report Manager.
mapclient <integer>	Set the debug level of the mapserver client.
oftpd <integer> <IP/deviceSerial/deviceName>	Set the debug level of the oftpd daemon. Enter an IPv4 address, device serial number, or device name to only show messages related to that device or IPv4 address. **Note:** Enter "" to reset.
ptmgr <integer>	Set the debug level of the Portal Manager.
ptsessionmgr <integer>	Set the debug level of the Portal Session Manager.
rptchkd <integer>	Set the debug level of the rptchkd daemon.
rptsched <integer>	Set the debug level of the rptsched daemon.
rtmmond <integer>	Set the debug level of the real time monitor daemon.
run-sql-rpt <integer>	Set the debug level of the SQL report daemon.
scansched <integer>	Set the debug level of the scan schedule daemon.
scheduled <integer>	Set the debug level of the schedule task daemon.
sdnproxy <integer>	Set the debug level of the sdnproxy daemon.

Variable	Description
securityconsole <integer>	Set the debug level of the security console daemon.
siemagentd <integer>	Set the debug level of the siemagentd daemon.
siemdbd <integer>	Set the debug level of the siemdbd daemon.
sniffer <integer>	Set the debug level of the interface sniffer.
snmpd <integer>	Set the debug level of the SNMP daemon.
sql-integration <integer>	Set the debug level of SQL applications.
sqllogd <integer>	Set the debug level of SQL log daemon.
sqlplugind <integer> <filter>	Set the debug level of the SQL plugin daemon. Set filter for sqlplugind. **Note:** Enter "" to reset the filter.
sqlreportd <integer> <filter>	Set the debug level (0-8) of the SQL report daemon. Set the filter for sqlreportd. **Note:** Enter "" to reset the filter. Without `<integer>` and `<filter>`, it shows the current debug level and filter of sqlreportd.
sqlrptcached <integer>	Set the debug level of the SQL report caching daemon.
srchd <integer>	Set the debug level of the SRCH daemon.
ssh <integer>	Set the debug level of SSH protocol transactions.
sshd <integer>	Set the debug level of the SSH daemon.
storaged <integer>	Set the debug level of communication with java clients.
syncsched <integer>	Set the debug level of the syncsched daemon.
uploadd <integer>	Set the debug level of the upload daemon.
vmd <integer>	Set the debug level for vmd.

Example

This example shows how to set the debug level to 7 for the upload daemon:

```
diagnose debug application uploadd 7
```

debug backup-oldformat-script-logs

Use this command to backup script log files that failed to be upgraded to the FTP server.

Syntax

```
diagnose debug backup-oldformat-script-logs <ip> <string> <username> <password>
```

Variable	Description
<ip>	Enter the FTP server IP address.
<string>	Enter the path/filename to save the log to the FTP server.
<username>	Enter the user name on the FTP server.
<password>	Enter the password associated with the user name.

debug cdbchk

Use these commands to enable or disable CLI CDB check debug output.

Syntax

```
diagnose debug cdbcheck {enable | disable}
```

debug cli

Use this command to set the debug level of CLI.

Syntax

```
diagnose debug cli <integer>
```

Variable	Description
<integer>	Set the debug level of the CLI (0 - 8, default = 3).

debug console

Use this command to enable or disable console debugging.

Syntax

```
diagnose debug console {enable | disable}
```

Variable	Description
{enable | disable}	Enable/disable console debugging.

debug coredump

Use this command to manage daemon and process core dumps.

Syntax

```
diagnose debug coredump crash-pid <pid>
diagnose debug coredump delete <daemon>
diagnose debug coredump disable <daemon>
diagnose debug coredump disable-pid <pid>
diagnose debug coredump enable <daemon>
diagnose debug coredump enable-once <daemon>
diagnose debug coredump enable-pid <pid>
diagnose debug coredump list
diagnose debug coredump upload <daemon> <service> <ip> <username> <password> <directory>
```

Variable	Description
crash-pid <pid>	Crash running process for core dump.
delete <daemon>	Delete core dumps for a daemon.
disable <daemon>	Disable core dump for a daemon.
disable-pid <pid>	Disable core dump of running process.
enable <daemon>	Enable core dump for a daemon.
enable-once <daemon>	Enable core dump the next time a daemon starts (one time only).
enable-pid <pid>	Enable core dump of running process.
list	List core dumps.
upload <daemon> <service> <ip> <username> <password> <directory>	Upload core dumps for a daemon to the specified server.

debug crashlog

Use this command to manage crash logs.

Syntax

```
diagnose debug crashlog clear
diagnose debug crashlog read
```

Variable	Description
clear	Delete backtrace and core files.
read	Show the crash logs. This command is hidden.

debug disable

Use this command to disable debug.

Syntax

```
diagnose debug disable
```

debug dpm

Use this command to manage the deployment manager.

Syntax

```
diagnose debug dpm comm-trace {enable | disable | status}
diagnose debug dpm conf-trace {enable | disable | status}
diagnose debug dpm probe-device <ip>
```

Variable	Description
comm-trace {enable | disable | status}	Enable/disable a DPM to FortiGate communication trace, or view the status of it.
conf-trace {enable | disable | status}	Enable/disable a DPM to FortiGate configuration trace, or view the status of it.
probe-device <ip>	Check device status.

debug enable

Use this command to enable debug.

Syntax

```
diagnose debug enable
```

debug gui

Use these commands to enable or disable the GUI debug flag.

Syntax

```
diagnose debug gui {enable | disable}
```

debug info

Use this command to show active debug level settings.

Syntax

```
diagnose debug info
```

debug klog

Use this command to show all kernel logs.

Syntax

```
diagnose debug klog clear
daignose debug klog read
```

debug raw-elog

Use this command to show raw elog.

Syntax

```
diagnose debug raw-elog
```

debug reset

Use this command reset the debug level settings. All debug settings will be reset.

Syntax

```
diagnose debug reset
```

debug service

Use this command to view or set the debug level of various service daemons.

Syntax

```
diagnose debug service anonymous <integer>
diagnose debug service cdb <integer>
diagnose debug service cmdb <integer>
diagnose debug service csf <integer>
diagnose debug service dbcache <integer>
diagnose debug service dump
diagnose debug service dvmcmd <integer>
diagnose debug service dvmdb <integer>
diagnose debug service fazcmd <integer>
diagnose debug service fazconf <integer>
```

```
diagnose debug service httpd <integer>
diagnose debug service main <integer>
diagnose debug service rpc-auth <integer>
diagnose debug service rtm <integer>
diagnose debug service sys <integer>
diagnose debug service task <integer>
```

Variable	Description
<integer>	The debug level.
dump	Dump services.

The `anonymous`, `dbcache`, `dump`, and `fazcmd` commands are only available on hardware devices.

debug sysinfo

Use this command to show system information.

Syntax

```
diagnose debug sysinfo
```

debug sysinfo-log

Use this command to generate one system log information log file every two minutes.

Syntax

```
diagnose debug sysinfo-log {on | off}
```

debug sysinfo-log-backup

Use this command to backup all system information log files to an FTP server.

Syntax

```
diagnose debug sysinfo-log-backup <server> <filepath> <user> <password>
```

Variable	Description
<server>	Enter the FTP server IPv4 address.
<filepath>	Enter the path/filename to save the log to the FTP server.
<user>	Enter the user name for the FTP server.
<password>	Enter the password associated with the user name.

debug sysinfo-log-list

Use this command to show system information elogs.

Syntax

```
diagnose debug sysinfo-log-list <integer>
```

Variable	Description
<integer>	Display the last n elogs (default = 10).

debug timestamp

Use this command to enable/disable debug timestamp.

Syntax

```
diagnose debug timestamp {enable | disable}
```

debug vmd

Use this command to show all the VMD (Virtual Machine Daemon) logs.

Syntax

```
diagnose debug vmd
```

debug vminfo

Use this command to show VM license information.

This command is only available on FortiManager VM models.

Syntax

```
diagnose debug vminfo
```

dlp-archives

Use this command to manage the DLP archives.

Syntax

```
diagnose dlp-archives quar-cache list-all-process
diagnose dlp-archives quar-cache kill-process <pid>
diagnose dlp-archives rebuild-quar-db
diagnose dlp-archives remove
diagnose dlp-archives statistics {show | flush}
diagnose dlp-archives status
diagnose dlp-archives upgrade
```

Variable	Description
quar-cache list-all-process	List all processes that are using the quarantine cache.
quar-cache kill-process <pid>	Kill a process that is using the quarantine cache.
rebuild-quar-db	Rebuild Quarantine Cache DB
remove	Remove all upgrading DLP archives.
statistics {show | flush}	Display or flush the quarantined and DLP archived file statistics.
status	Running status.
upgrade	Upgrade the DLP archives.

dvm

Use the following commands for DVM related settings.

dvm adom

Use this command to list or clone ADOMs.

Syntax

```
diagnose dvm adom clone <adom> <new_adom>
diagnose dvm adom lockinfo <admon>
diagnose dvm adom reset-default-flags
diagnose dvm adom time-zone
diagnose dvm adom list [<adom>]
```

Variable	Description
clone <adom> <new_adom>	Clone an ADOM. Enter the name of the ADOM that will be cloned, and the name of the clone.
lockinfo <adom>	Print adom lock states. Enter the ADOM or OID.
reset-default-flags	Reset ADOM default flags.
time-zone	List ADOM time zone infortmation.
list [<adom>]	List ADOMs, state, product, OS version (OSVER), major release (MR), name, mode, VPN management, and IPS. Optionally, specify the ADOM or OID.

dvm capability

Use this command to set the DVM capability.

Syntax

```
diagnose dvm capability set {all | standard}
diagnose dvm capability show
```

Variable	Description
set {all | standard}	Set the capability to all or standard.
show	Show what the capability is set to.

dvm chassis

Use this command to list chassis and supported chassis models.

Syntax

```
diagnose dvm chassis list
diagnose dvm chassis supported models
```

Variable	Description
list	List chassis.
supported-models	List supported chassis models.

dvm check-integrity

Use this command to check the DVM database integrity.

Syntax

```
diagnose dvm check-integrity
```

dvm csf

Use this command to print the CSF configuration.

Syntax

```
diagnose dvm csf <adom> <category>
```

Variable	Description
<adom>	The ADOM name.
<category>	The category: • `all`: Dump all CSF categories • `group`: Dump CSF group • `intf-role`: Dump interface role • `user-device`: Dump user device

dvm dbstatus

Use this command to print the database status.

Syntax

```
diagnose dvm dbstatus
```

dvm debug

Use this command to enable/disable debug channels, and show debug message related to DVM.

Syntax

```
diagnose dvm debug {enable | disable} <channel> <channel> <channel> <channel> <channel>
diagnose dvm debug trace [filter]
```

Variable	Description
{enable | disable}	Enable/disable debug channels.
trace	Show the DVM debug message.

Variable	Description
<channel>	The following channels are available: `all`, `dvm_db`, `dvm_dev`, `shelfmgr`, `ipmi`, `lib`, `dvmcmd`, `dvmcore`, `gui`, and `monitor`
<filter>	The following filters are available: `all`, `dvm_db`, `dvm_dev`, `shelfmgr`, `ipmi`, `lib`, `dvmcmd`, `dvmcore`, `gui`, and `monitor`.

dvm device

Use this command to list devices or objects referencing a device.

Syntax

```
diagnose dvm device auto-management-list <device>
diagnose dvm device coordinate <action> [device]
diagnose dvm device delete <adom> <device>
diagnose dvm device dynobj <device>
diagnose dvm device list <device> <vdom>
diagnose dvm device lockinfo <device>
diagnose dvm device monitor <device> <api>
diagnose dvm device object-reference <device> <vdom> <category> <object>
```

Variable	Description
auto-management-list <device>	List devices with auto management flags information. Optionally, enter a device name or OID.
coordinate <action> [device]	List device coordinate. Enter an action: • `list` • `update` • `clear` Optionally, enter a device name or OID.
delete <adom> <device>	Delete a device in a specific ADOM.
dynobj <device>	List dynamic objects on this device.
list <device> <vdom>	List devices. Optionally, enter a device or VDOM name.
lockinfo <device>	Print device lock states. Enter the device name or OID.
monitor <device> <api>	JSON API for device monitor. Specify the device name and the monitor API name.
object-reference <device> <vdom> <category> <object>	List object reference. Specify the device name, VDOM, category (or *all* for all categories), and object.

Example

The following example shows the results of running the monitor command for WiFi clients.

```
FMG-VM64 # diagnose dvm device monitor FortiGate-VM64 wifi/client
Request :
{
   "id": 1473975442,
   "method": "exec",
   "params": [
      {
         "data": {
            "action": "get",
            "resource": "/api/v2/monitor/wifi/client",
            "target": [
               "adom/root/device/FortiGate-VM64"
            ]
         },
         "url": "sys/proxy/json"
      }
   ]
}
Response :
{
   "id": 1473975442,
   "result": [
      {
         "data": [
            {
               "response": {
                  "action": "select",
                  "build": 2804,
                  "http_method": "GET",
                  "name": "client",
                  "path": "wifi",
                  "results": null,
                  "serial": "FGVMEV0000000000",
                  "status": "success",
                  "vdom": "root",
                  "version": "v7.4.11"
               },
               "status": {
                  "code": 0,
                  "message": "OK"
               },
               "target": "FortiGate-VM64"
            }
         ],
         "status": {
            "code": 0,
            "message": "OK"
         },
         "url": "sys/proxy/json"
      }
   ]
}
```

dvm device-tree-update

Use this command to enable/disable device tree automatic updates.

Syntax

```
diagnose dvm device-tree-update {enable | disable}
```

Variable	Description
{enable | disable}	Enable/disable device tree automatic updates.

dvm extender

Use these commands to list FortiExtender devices, synchronize FortiExtender data via JSON, and perform other actions.

Syntax

```
diagnose dvm extender copy-data-to-device <device>
diagnose dvm extender import-profile <device> <vdom> <name>
diagnose dvm extender import-template <device> <extender id>
diagnose dvm extender list [device]
diagnose dvm extender reset-adom <adom> [clear-only] [skip-restart]
diagnose dvm extender set-template <device> <extender id> <template>
diagnose dvm extender sync-extender-data <device> [savedb/no/force] [syncadom/no] [task]
```

Variable	Description
copy-data-to-device <device>	Copy extender data (data plan and SIM profile) to the device. Enter the device name.
import-profile <device> <vdom> <name>	Import extender profile to the ADOM. Enter the device name or ID, VDOM, and profile name.
import-template <device> <extender id>	Import dataplan and SIM profile to the ADOM template. Enter the device name or ID, and the extender ID.
list [device]	List FortiExtender devices, or those connected to a specific device.
reset-adom <adom> [clear-only] [skip-restart]	Reset all extender data in the ADOM: • `adom`: Enter `104` for FortiCarrier, `130` for FortiFirewall, `134` for Unmanaged_Devices, and `3` for root Optionally, use the following variables: • `clear-only`: Do not sync extender data to the ADOM • `skip-restart`: Do not restart FortiManager after the operation
set-template <device> <extender id> <template>	Set template to the extender modem. Enter the device name or ID, extender ID, and template.
sync-extender-data <device> [savedb/no/force] [syncadom/no] [task]	Synchronize FortiExtender data by JSON. Optionally: save the data to the database, synchronize the ADOM, and/or create a task.

dvm fap

Use this command to list the FortiAP devices connected to a device.

Syntax

```
diagnose dvm fap list <devname>
diagnose dvm fap sync-to-adom <adom> [device]
```

Variable	Description
list <devname>	List the FortiAP. Enter the device name or ID.
sync-to-adom <adom> [device]	Sync device FortiAP to ADOM. Enter the ADOM. Enter the device name or press Enter for all devices.

dvm fsw

Use this command to list the FortiSwitch devices connected to a device.

Syntax

```
diagnose dvm fsw list <devname>
diagnose dvm fsw sync-to-adom <adom> [device]
```

Variable	Description
list <devname>	List the FortiSwitch. Enter the device name or ID.
sync-to-adom <adom> [device]	Sync device FortiSwitch to ADOM. Enter the ADOM. Enter the device name or press Enter for all devices.

dvm group

Use this command to list groups.

Syntax

```
diagnose dvm group list
```

Variable	Description
list	List groups.

dvm lockinfo

Use this command to print the DVM lock states.

Syntax

```
diagnose dvm lockinfo
```

dvm proc

Use this command to list DVM process (dvmcmd) information.

Syntax

```
diagnose dvm proc list
```

dvm remove

Use these commands to remove the autoupdate log files or remove all unused IPS package files.

Syntax

```
diagnose dvm remove autoupdate-log <device oid>
diagnose dvm remove unused-ips-packages
```

Variable	Description
autoupdate-log <device oid>	Remove autoupdate debug log files. Enter the device OID.
unused-ips-packages	Remove all unused IPS package files.

dvm supported-platforms

Use this command to list supported platforms and firmware versions.

Syntax

```
diagnose dvm supported-platforms list <detail>
diagnose dvm supported-platforms mr-list
diagnose dvm supported-platforms fortiswitch [<adom>]
```

Variable	Description
list <detail>	List supported platforms by device type. Enter *detail* to show details with syntax support.

Variable	Description
mr-list	List supported platforms by major release.
fortiswitch [<adom>]	List supported platforms in FortiSwitch manager. Optionally, enter the ADOM name.

dvm task

Use this command to repair or reset the task database.

Syntax

```
diagnose dvm task list <adom> <type>
diagnose dvm task lockinfo
diagnose dvm task repair
diagnose dvm task reset
```

Variable	Description
list <adom> <type>	List task database information.
lockinfo	Print task lock states.
repair	Repair the task database while preserving existing data where possible. The FortiManager will reboot after the repairs.
reset	Reset the task database to its factory default state. All existing tasks and the task history will be erased. The FortiManager will reboot after the reset.

dvm taskline

Use this command to repair the task lines.

Syntax

```
diagnose dvm taskline repair
```

Variable	Description
repair	Repair the task lines while preserving data wherever possible. The FortiManager will reboot after the repairs.

dvm template

Use this command to update the default template settings.

Syntax

```
diagnose dvm template update <category> <adom> [country]
```

Variable	Description
update <category> <adom> [country]	Enter the template category {wtp | vap | wifi-setting | extender} and ADOM. Optionally, enter a country ID or country ISO code.

dvm transaction-flag

Use this command to edit or display DVM transaction flags.

Syntax

```
diagnose dvm transaction-flag [abort | debug | none]
```

Variable	Description
transaction-flag [abort | debug | none]	Set the transaction flag.

dvm workflow

Use this command to edit or display workflow information.

Syntax

```
diagnose dvm workflow log-list <adom_name> <workflow_session_ID>
diagnose dvm workflow session-list [adom_name]
diagnose dvm workflow workflow-db-reset <adom> [skip-restart]
```

Variable	Description
log list <adom_name> <workflow_session_ID>	List workflow session logs.
session list [adom_name]	List workflow sessions.
workflow-db-reset <adom> [skip-restart]	Reset workflow database from ADOM rundb. Optonally, don't restart FortiManager after the operation.

faz-cdb

Use these commands for FortiAnalyzer database configuration related settings.

faz-cdb fix

Use this command to fix the FortiAnalyzer configuration database.

Syntax

```
diagnose faz-cdb fix check-report-folder <adom name>
diagnose faz-cdb fix fix-report-folder <adom name>
```

Variable	Description
check-report-folder	Check FortiAnalyzer configuration database report folders from the last upgrade backup.
fix-report-folder	Fix FortiAnalyzer configuration database report folders from the last upgrade.
<adom name>	Enter the ADOM name or enter `all` for all ADOMs.

faz-cdb reset

Use this command to reset the FortiAnalyzer configuration database.

Syntax

```
diagnose faz-cdb reset
```

faz-cdb upgrade

Use this command to upgrade the FortiAnalyzer configuration database.

Syntax

```
diagnose faz-cdb upgrade check-adom <adom name>
diagnose faz-cdb upgrade check-global
diagnose faz-cdb upgrade export-config <adom name> <service> <ip> <user> <password>
     <path/filename>
diagnose faz-cdb upgrade import-config <adom name> <service> <ip> <user> <password>
     <path/filename>
diagnose faz-cdb upgrade log
diagnose faz-cdb upgrade summary
```

Variable	Description
check-adom	Check the last ADOM upgrade result.
check-global	Check the last global upgrade result.
export-config	Export the FortiAnalyzer configuration database files.

Variable	Description
import-config	Import the FortiAnalyzer configuration database files.
log	Display the FortiAnalyzer configuration database upgrade log.
summary	Display the FortiAnalyzer configuration database summary.
<adom name>	Enter the ADOM name or enter `all` for all ADOMs.
<service>	Enter the transfer protocol one of: `ftp`, `sftp`, or `scp`.
<ip>	Enter the server IP address. For FTP, the port can be specified by adding `:port` to the server IP address.
<user>	Enter a user name of the remote server.
<password>	Enter the password or `'-'` for user.
<path/filename>	Enter the path/ filename on remote server.

fgfm

Use this command to get installation session, object, and session lists.

Syntax

```
diagnose fgfm install-session
diagnose fgfm object-list
diagnose fgfm session-list <device ID>
```

Variable	Description
install-session	Get installations session lists.
object-list	Get object lists.
session-list <device ID>	Get session lists.

fmnetwork

Use the following commands for network related settings.

fmnetwork arp

Use this command to manage ARP.

Syntax

```
diagnose fmnetwork arp del <intf-name> <IP>
diagnose fmnetwork arp list
```

Variable	Description
del <intf-name> <IP>	Delete an ARP entry.
list	List ARP entries.

fmnetwork interface

Use this command to view interface information.

Syntax

```
diagnose fmnetwork interface detail <interface>
diagnose fmnetwork interface list [<interface>]
```

Variable	Description
detail <interface>	View a specific interface's details, for example: `port1`.
list [<interface>]	List all interface details.

fmnetwork netstat

Use this command to view network statistics.

Syntax

```
diagnose fmnetwork netstat list [-r]
diagnose fmnetwork netstat tcp [-r]
diagnose fmnetwork netstat udp [-r]
```

Variable	Description
list [-r]	List all connections, or use -r to list only resolved IP addresses.
tcp [-r]	List all TCP connections, or use -r to list only resolved IP addresses.
udp [-r]	List all UDP connections, or use -r to list only resolved IP addresses.

fmupdate

Use this command to diagnose update services.

Syntax

```
diagnose fmupdate check-disk-quota {export-import | fds | fgd | all} <clean>
diagnose fmupdate crdb {generate | view}
diagnose fmupdate dbcontract [<serial>]
diagnose fmupdate del-device <serial>
diagnose fmupdate del-log
diagnose fmupdate del-object {fds | fgd | fqfq | geoip} [<object_type>] [<object_
     version>]
diagnose fmupdate del-serverlist {fct | fds | fgd}
diagnose fmupdate dump-um-db {um2.db | fds.db} [<table>]
diagnose fmupdate fds-dump {breg | fds-log | fect | fmgi | imlt | imlt-d | imlt-d20 |
     immx | oblt | srul | subs}
diagnose fmupdate fds-getobject <filter type> <filter> <other options>
diagnose fmupdate fds-update-info
diagnose fmupdate fgd-bandwidth {1h | 6h | 12h | 24h | 7d | 30d}
diagnose fmupdate fgd-dbver [{as1 | as2 | as4 | av | av2 | cat1 | fq | geoip | iotm |
     iotr | iots | wf}]
diagnose fmupdate fgd-del-db [{as1 | as2 | as4 | av | av2 | cat1 | fq | geoip | iotm |
     iotr | iots | wf}]
diagnose fmupdate fgd-dump [{as1 | as2 | as4 | av | av2 | cat1 | fq | geoip | iotm | iotr
     | iots | wf}]
diagnose fmupdate fgd-wfas-clear-log
diagnose fmupdate fgd-wfas-log [{name | ip} {<name> | <ip addr>}]
diagnose fmupdate fgd-wfas-rate {wf | av | as_ip | as_url | as_hash}
diagnose fmupdate fgd-wfdevice-stat {10m | 30m | 1h | 6h | 12h | 24h | 7d} {all |
     <serial> [<integer>]
diagnose fmupdate fgd-wfserver-stat {top10sites | top10devices} [{10m | 30m | 1h | 6h |
     12h | 24h | 7d}]
diagnose fmupdate fgt-del-statistics
diagnose fmupdate fgt-del-um-db [{um.db | um2.db | fds.db | um_stat.db | som.dat}]
diagnose fmupdate fortitoken {seriallist | add | del} <serial>
diagnose fmupdate list-object {fds | fgd | fqfq | geo-ip} [<object_type>] [<object_
     version>]
diagnose fmupdate priority-download {clear | list | view}
diagnose fmupdate service-restart {fds | fgd | fmtr | fwm}
diagnose fmupdate show-bandwidth {fct | fgt | fml | faz} {1h | 6h | 12h | 24h | 7d | 30d}
diagnose fmupdate show-dev-obj [<serial>]
diagnose fmupdate test {fgd-url-rating | fgd-test-client | ping-server | fds-contract}
     <string> <string> <string> <string> <string>
diagnose fmupdate update-status {fds | fct | fgd}
diagnose fmupdate updatenow {fds | fgd} {fgd | fgfq | geoip} {SelectivePoll | Poll |
     Consolidation | Command}
diagnose fmupdate view-configure {fds | fct | fgd | fmtr}
diagnose fmupdate view-linkd-log {fct | fds | fgd}
diagnose fmupdate view-serverlist {fds | fgd}
diagnose fmupdate view-service-info {fds | fgd}
diagnose fmupdate vm-license
```

Variables	Description
check-disk-quota {export-import | fds | fgd | all} <clean>	Check the related directory size. Clean the export/import directory, if necessary.
crdb {generate | view}	Generate or view certificate files from the database.
dbcontract [<serial>]	Dump the subscriber contract. Optionally, enter the serial number of the device.

Variables	Description
del-device <serial>	Delete a device. Optionally, enter a serial number for the device.
del-log	Delete all the logs for FDS and FortiGuard update events.
del-object {fds | fgd | fqfq | geoip} [<object_type>] [<object_ version>]	Remove all objects from the specified service. Optionally, enter the object type and version or time.
del-serverlist {fct | fds | fgd}	Delete the server list file (fdni.dat) from the specified service.
dump-um-db {um2.db | fds.db} [<table>]	Dump um databases or dump either um2 or fds database. Optionally, you can dump a specified table in um2 or fds databases.
fds-dump {breg | fds-log | fect | fmgi | imlt | imlt-d | imlt-d20 | immx | oblt | srul | subs}	Dump FDS files: • `breg`: Dump the FDS beta serial numbers. • `fds-log`: Dump the FDS svrd log. Optionally, enter a rolling number from 0 to 10. • `fect`: Dump the FortiClient image file. Choose from the two available options of dumping the FortiClient file for the server or the client. • `fmgi`: Dump FMGI (Object description details) file. • `imlt`: Dump FGT image list file. • `imlt-d`: Dump FGT image file for downstream device. • `imlt-d20`: Dump FGT image list file for downsteam, v2.0. • `immx`: Dump the image upgrade matrix file. You can dump the IMMX files for FortiManager, FortiGate, or FortiCloud. • `oblt`: Dump the object list file. You can dump the object list files for FGT, FCT, FGD, FQFQ, or geoip services. You can also dump the downstream object file for one of these services. • `srul`: Dump the FDS select filtering rules. • `subs`: Dump Contract file.
fds-getobject <filter type> <filter> <other options>	Get the versions of all FortiGate objects for antivirus-IPS. • `<filter type>`: Enter `product` or `objid` as the filter type. • `<filter>`: Enter an available filter. These filters are available only when you select `product` as your filter type. Enter `all` for all product filters. • `<other options>`: Enter `used` to show used-only objects or `raw` to show response in raw JSON format.
fds-update-info	Display scheduled update information.
fgd-bandwidth {1h | 6h | 12h | 24h | 7d | 30d}	Display the download bandwidth.
fgd-dbver [{as1 | as2 | as4 | av | av2 | cat1 | fq | geoip | iotm | iotr | iots | wf}]	Get the version of the database. Optionally, enter the database type: • `as1`: Antispam (IP). • `as2`: Antispam (URL). • `as4`: Antispam (HASH). • `av`: AntiVirus Query. • `av2`: Outbreak Prevention.

Variables	Description
	• cat1: Query Category. • fq: File Query. • geoip: GeoIP. • iotm: IoT (mapping). • iotr: IoT (range). • iots: IoT (single). • wf: Webfilter.
fgd-del-db [{as1 | as2 | as4 | av | av2 | cat1 | fq | geoip | iotm | iotr | iots | wf}]	Delete FortiGuard database. Optionally, enter the database type: • as1: Antispam (IP). • as2: Antispam (URL). • as4: Antispam (HASH). • av: AntiVirus Query. • av2: Outbreak Prevention. • cat1: Query Category. • fq: File Query. • geoip: GeoIP. • iotm: IoT (mapping). • iotr: IoT (range). • iots: IoT (single). • wf: Webfilter.
fgd-dump [{as1 | as2 | as4 | av | av2 | cat1 | fq | geoip | iotm | iotr | iots | wf}]	Dump the FortiGuard information. Optionally, select a database category type: • as1: Antispam (IP). • as2: Antispam (URL). • as4: Antispam (HASH). • av: AntiVirus Query. • av2: Outbreak Prevention. • cat1: Query Category. • fq: File Query. • geoip: GeoIP. • iotm: IoT (mapping). • iotr: IoT (range). • iots: IoT (single). • wf: Webfilter.
fgd-wfas-clear-log	Clear the FortiGuard service log file.
fgd-wfas-log [{name | ip} {<name> | <ip addr>}]	View the FortiGuard service log file. Optionally, enter the device filter type, and device name or IPv4 address.
fgd-wfas-rate [{as_hash | as_ip | as_url | av | av2 | fq | wf}]	Get the web filter / antispam rating speed. Optionally, enter the server type: • as_hash: Antispam (HASH). • as_ip: Antispam (IP).

Variables	Description
	• as_url: Antispam (URL). • av: AntiVirus Query. • av2: Outbreak Prevention. • fq: File Query. • wf: Webfilter.
fgd-wfdevice-stat {10m | 30m | 1h | 6h | 12h | 24h | 7d} <serial> [<integer>]	Display web filter device statistics. Enter all or a specific device's serial number. Optionally, enter the number of time periods to display (default = 1).
fgd-wfserver-stat {top10sites | top10devices} [{10m | 30m | 1h | 6h | 12h | 24h | 7d}]	Display web filter server statistics for the top 10 sites or devices. Optionally, enter the time frame to cover.
fgt-del-statistics	Remove all statistics (antivirus / IPS and web filter / antispam). This command requires a reboot.
fgt-del-um-db [{um.db | um2.db | fds.db | um_stat.db | som.dat}]	Remove UM, UM2, fds, and um_stat databases. This command requires a reboot. **Note**: um.db is a sqlite3 database that update manager uses internally. It will store AV/IPS package information of downloaded packages. This command removes the database file information. The package is not removed. After the reboot, the database will be recreated. Use this command if you suspect the database file is corrupted.
fortitoken {seriallist | add | del} <serial>	FortiToken related operations.
list-object {fds | fgd | fqfq | geo-ip} [<object_type>] [<object_ version>]	List downloaded objects of linkd service. Optionally, enter the object type and version or time.
priority-download {clear | list | view}	Command for priority download: • clear: view config. • list: list object id of list. • view: clear config.
service-restart {fds | fgd | fmtr | fwm}	Restart the linkd service.
show-bandwidth {fct | fgt | fml | faz} {1h | 6h | 12h | 24h | 7d | 30d}	Display the download bandwidth for a device type over a specified time period.
show-dev-obj [<serial>]	Display an objects version of a device. Optionally, enter a serial number.

test {fgd-url-rating | fgd-test-client | ping-server | fds-contract} <string> <string> <string> <string> <string>	Test tools:
	• fgd-url-rating: Rate URLs within the FortiManager database using the hostname or IP of the FortiGuard server.
	  • <string>: Enter the hostname or IP of the FortiGuard server.
	  • <string>: Enter the FortiGate serial number.

Variables	Description
	• `<string>`: Enter the category version. • `<string>`: Enter the URL. • `<string>`: Enter the IP (optional). • `fgd-test-client`: Execute FortiGuard test client using the hostname or IP of the FortiGuard server. • `<string>`: Enter the hostname or IP of the FortiGuard server. • `<string>`: Enter the serial number of the device. • `<string>`: Enter the query number per second (for stress test) or URL (for single query). • `<string>`: Enter the category version (optional, default 7). • `ping-server`: Check connection of FortiGuard servers. • `<string>`: Enter the DNS server (optional). • `<string>`: Enter the server number or address. • `fds-contract`: Get the fds contract by SelectivePoll. • `<string>`: Enter the details (optional).
update-status {fds | fct | fgd}	Display the update status for a service.
updatenow {fds | fgd} {fgd | fgfq | geoip} {SelectivePoll | Poll | Consolidation | Command}	Update immediately. Select a service, service type, and task type. **Note**: Selecting a service and task type is only available when the service is `fgd`.
view-configure {fds | fct | fgd | fmtr}	Dump the running configuration.
view-linkd-log {fct | fds | fgd}	View the linkd log file.
view-serverlist {fds | fgd}	Dump the server list.
view-service-info {fds | fgd}	Display the service information.
vm-license	Dump the FortiGate VM license.

fortilogd

Use this command to view FortiLog daemon information.

Syntax

```
diagnose fortilogd lograte
diagnose fortilogd lograte-adom
diagnose fortilogd lograte-device [filter]
diagnose fortilogd lograte-total
diagnose fortilogd lograte-type
diagnose fortilogd logvol-adom
diagnose fortilogd msgrate
diagnose fortilogd msgstat [flush]
diagnose fortilogd status
```

Variable	Description
lograte	Display the log rate.
lograte-adom	Display log rate by ADOM.
lograte-device [filter]	Display log rate by device.
lograte-total	Display log rate by total.
lograte-type	Display log rate by type.
logvol-adom	Display the GB/day by ADOM.
msgrate	Display log message rate.
msgstat [flush]	Display or flush log message statuses.
status	Running status.

fortitoken-cloud

Use these commands to show the FortiToken Cloud (FTC) status or activate a FTC free trial.

Syntax

```
diagnose fortitoken-cloud status
diagnose fortitoken-cloud trial
```

Variable	Description
status	Show the FCT status.
trial	Activate a FTC free trial.

fwmanager

Use these commands to manage firmware.

Syntax

```
diagnose fwmanager fwm-log <dump> [rolling number]
diagnose fwmanager image-clear
diagnose fwmanager image-download <platform> <version>
diagnose fwmanager image-list <product> [raw]
diagnose fwmanager profile <action> [adom] <device | group | profile> <id | name> <raw |
     name> <raw>
diagnose report <action> <argument 1> <argument 2>
diagnose fwmanager service-restart
diagnose fwmanager set-controller-schedule <device> <controller_id> <version> [date_time]
```

```
diagnose fwmanager set-dev-schedule <device> <version> [flags] [date_time]
diagnose fwmanager set-grp-schedule <group> <version> [flags] [date_time]
diagnose fwmanager show-dev-disk-check-status <device>
diagnose fwmanager show-dev-upgrade-path <device> <version>
diagnose fwmanager show-grp-disk-check-status <group>
diagnose fwmanager test-upgrade-path <platform> <from-version> <to-version> [debug]
```

Variable	Description
fwm-log <dump> [rolling number]	View the firmware manager log file. Optionally, dump whole log. Optionally, enter a rolling number from 0 to 10.
image-clear	Clear all local images and its FCP object files.
image-download <platform> <version>	Download the official image. Enter the platform name and version.
image-list <product> [raw]	Get the local firmware image list for the product: • `FGT`: FortiGate • `FMG`: FortiManager • `FAZ`: FortiAnalyzer • `FAP`: FortiAP • `FSW`: FortiSwitch • `FXT`: FortiExtender Optionally, enter `raw` get the raw JSON response.
profile <action> [adom] <device | group | profile> <id | name> <raw | name> <raw>	Clear, list, or synchronize the firmware profile setting. Enter one of the following actions: • `cancel` • `clear` • `list` • `list-by-device` • `sync` If using `list-by-device`, enter the name or id of the device or group. If using `cancel`, enter the profile name, device name or id, and, optionally, enter raw to show the raw data.
service-restart	Restart the firmware manager server.
set-controller-schedule <device> <controller_id> <version> [date_time]	Create a controller upgrade schedule for a device.
set-dev-schedule <device> <version> [flags] [date_time]	Create an upgrade schedule for a device. The build number is only needed for special images, use 0 for regular images.
set-grp-schedule <group> <version> <flags> <date_time>	Create an upgrade schedule for a group.
show-dev-disk-check-status <device>	Show whether the device needs a disk check
show-dev-upgrade-path	Show the possible upgrade path

Variable	Description
<device> <version>	
show-grp-disk-check-status <group>	Show whether the devices in the group need disk checks
test-upgrade-path <platform> <from-version> <to-version> [debug]	Show possible FortiGate upgrade paths.

ha

Use this command to view and manage high availability.

Syntax

```
diagnose ha check-data {start | stop | status}
diagnose ha data-check-report {read | delete}
diagnose ha dump-cloud-api-log
diagnose ha dump-datalog
diagnose ha force-resync
diagnose ha force-vrrp-election
diagnose ha stats
diagnose ha trace-client-req {enable | disable}
```

Variable	Description
check-data {start | stop | status}	Start/stop or check status of database hash and revision files.
data-check-report {read | delete}	Read or delete the data check validation report.
dump-cloud-api-log	Dump cloud API log.
dump-datalog	Dump the HA data log.
force-resync	Force HA to re-synchronize the configuration.
force-vrrp-election	Force a Virtual Router Redundancy Protocol (VRRP) new election.
stats	Get HA statistics.
trace-client-req {enable | disable}	Enable/disable trace of client side request.

hardware

Use this command to view hardware information.

Syntax

```
diagnose hardware info
```

incident

Use this command to view incident attachment information

Syntax

```
diagnose incident attachment status <adom> <attachment type> [detail]
```

Variable	Description
attachment	Incident's Attachment.
status	Attachment status information.
<adom>	ADOM name or `all` for all ADOMs.
<attachment type>	The attachment type: `report`, `alertevent`, `note`, `file`, or `all` for all types.
[detail]	Show detailed information.

license

Use this command to check license information.

Syntax

```
diagnose license list
diagnose license update
```

Variable	Description
list	List the FortiAnalyzer license information.
update	Update the FortiAnalyzer license information.

log

Use the following command to view log information.

log device

Use this command to view device log usage.

Syntax

```
diagnose log device [<device-id> | adom] [adom-name | all | *]
```

Variable	Description
[<device-id> | adom]	Optionally filter by device ID or ADOM.
[adom-name | all | *]	Optionally filter by ADOM name when filtering by ADOM.

log restore

Use this command to view the last log restore result or to cancel the last log restore request.

Syntax

```
diagnose log restore cancel
diagnose log restore status
```

Variable	Description
cancel	Cancel the last log restore request.
status	Show the last log restore result.

pm2

Use this command to print from and check the integrity of the policy manager database.

Syntax

```
diagnose pm2 check-integrity {all adom device global ips task ncmdb}
diagnose pm2 db-recover <db-category>
diagnose pm2 print <log-type>
```

Variable	Description
check-integrity {all adom device global ips task ncmdb}	Check policy manager database integrity. Multiple database categories can be checked at once.
db-recover <db-category>	Recover data from a corrupted database. Enter the database category.
print <log-type>	Print policy manager database log messages.

report

Use these commands to check the SQL database.

Syntax

```
diagnose report clean {ldap-cache | report-queue}
diagnose report status {pending | running}
```

Variable	Description
clean {ldap-cache | report-queue}	Cleanup the SQL report queue or LDAP cache.
status {pending | running}	Check status information on pending and running reports.

rtm

rtm debug-log

Use this command for RTM daemon debug log functions.

Syntax

```
diagnose rtm debug-log clear
diagnose rtm debug-log enable
diagnose rtm debug-log read
```

Variable	Description
clear	Delete and disable rtmmond debug log.
enable	Enable rtmmond debug log.
read	Dump rtmmond debug log to console.

rtm history-data

Use this command to view and export the real time monitor history data.

Syntax

```
diagnose rtm history-data export clear <device>
diagnose rtm history-data export csv <device> <monitor> <filter:1> ... <filter:9>
diagnose rtm history-data export list <device>
diagnose rtm history-data info <device> <monitor>
diagnose rtm history-data key-list <device> <monitor> <key-name>
```

```
diagnose rtm history-data query <device> <monitor> <filter:1> ... <filter:9>
```

Variable	Description
export clear <device>	Remove exported filtes.
export csv <device> <monitor> <filter:1> ... <filter:8>	Export data to csv file.
export list <device>	List exported files.
info <device> <monitor>	View real time monitor history database information.
key-list <device> <monitor> <key-name>	Query real time monitor history key list.
query <device> <monitor> <filter:1> ... <filter:8>	Query real time monitor history data.

rtm history-db

Use this command to purge the real time monitor history database.

Syntax

```
diagnose rtm history-db purge
```

Variable	Description
purge	Purge history database.

rtm profile

Use this command to display or update real time monitor profile database.

Syntax

```
diagnose rtm profile change-adom <adom>
diagnose rtm profile list
diagnose rtm profile update check-interval {fap | fsw6 | fsw7 | ha-chksum | license| lte
      | nonha-chksum | rogue | sdwan-intf | sdwan-sla | shaper} <new value>
diagnose rtm profile update post-interval {fap | fsw6 | fsw7 | ha-chksum | license| lte |
     nonha-chksum | rogue | sdwan-intf | sdwan-sla | shaper} <new value>
diagnose rtm profile update retry-interval {fap | fsw6 | fsw7 | ha-chksum | license| lte
      | nonha-chksum | rogue | sdwan-intf | sdwan-sla | shaper} <new value>
diagnose rtm profile unset
```

Variable	Description
change-adom <adom>	Change ADOM for the RTM profile.

Variable	Description
list	List the RTM profile.
update check-interval {fap | fsw6 | fsw7 | ha-chksum | license| lte | nonha-chksum | rogue | sdwan-intf | sdwan-sla | shaper} <new value>	Update the RTM profile task to check the WiFi interval: • `fap`: FortiAP. • `fsw6`: FortiSwitch v6. • `fsw7`: FortiSwitch v7. • `ha-chksum`: HA checksum. • `license`: License status. • `lte`: LTE modem. • `nonha-chksum`: Non-HA checksum. • `rogue`: Rogue AP. • `sdwan-intf`: SD-WAN interface-log. • `sdwan-sla`: SD-WAN sla-log. • `shaper`: Multi-class shaper. **Note**: For the new value variable, enter an interval range between 180 - 7200 seconds.
update post-interval {fap | fsw6 | fsw7 | ha-chksum | license| lte | nonha-chksum | rogue | sdwan-intf | sdwan-sla | shaper} <new value>	Update the post interval: • `fap`: FortiAP. • `fsw6`: FortiSwitch v6. • `fsw7`: FortiSwitch v7. • `ha-chksum`: HA checksum. • `license`: License status. • `lte`: LTE modem. • `nonha-chksum`: Non-HA checksum. • `rogue`: Rogue AP. • `sdwan-intf`: SD-WAN interface-log. • `sdwan-sla`: SD-WAN sla-log. • `shaper`: Multi-class shaper. **Note**: For the new value variable, enter an interval range between 10 - 7200 seconds.
update retry-interval {fap | fsw6 | fsw7 | ha-chksum | license| lte | nonha-chksum | rogue | sdwan-intf | sdwan-sla | shaper} <new value>	Update the retry interval: • `fap`: FortiAP. • `fsw6`: FortiSwitch v6. • `fsw7`: FortiSwitch v7. • `ha-chksum`: HA checksum. • `license`: License status. • `lte`: LTE modem. • `nonha-chksum`: Non-HA checksum. • `rogue`: Rogue AP. • `sdwan-intf`: SD-WAN interface-log.

Variable	Description
	• `sdwan-sla`: SD-WAN sla-log. • `shaper`: Multi-class shaper. **Note**: For the new value variable, enter an interval range between 10 - 7200 seconds.
unset	Unset the RTM profile to default value.

sniffer

Use this command to perform a packet trace on one or more network interfaces.

Packet capture, also known as sniffing, records some or all of the packets seen by a network interface. By recording packets, you can trace connection states to the exact point at which they fail, which may help you to diagnose some types of problems that are otherwise difficult to detect.

FortiManager units have a built-in sniffer. Packet capture on FortiManager units is similar to that of FortiGate units. Packet capture is displayed on the CLI, which you may be able to save to a file for later analysis, depending on your CLI client.

Packet capture output is printed to your CLI display until you stop it by pressing `CTRL + C`, or until it reaches the number of packets that you have specified to capture.

Packet capture can be very resource intensive. To minimize the performance impact on your FortiManager unit, use packet capture only during periods of minimal traffic, with a serial console CLI connection rather than a Telnet or SSH CLI connection, and be sure to stop the command when you are finished.

Syntax

```
diagnose sniffer packet <interface> <filter> <verbose> <count> <Timestamp format>
```

Variable	Description
<interface>	Enter the name of a network interface whose packets you want to capture, such as `port1`, or type `any` to capture packets on all network interfaces.
<filter>	Enter either `none` to capture all packets, or type a filter that specifies which protocols and port numbers that you do or do not want to capture, such as `'tcp port 25'`. Surround the filter string in quotes. The filter uses the following syntax: `'[[src|dst] host {<host1_fqdn> | <host1_ipv4>}] [and|or] [[src|dst] host {<host2_fqdn> | <host2_ipv4>}] [and|or] [[arp|ip|gre|esp|udp|tcp] port <port1_int>] [and|or] [[arp|ip|gre|esp|udp|tcp] port <port2_int>]'`

Variable	Description
	To display only the traffic between two hosts, specify the IP addresses of both hosts. To display only forward or only reply packets, indicate which host is the source and which is the destination. For example, to display UDP port 1812 traffic between 1.example.com and either 2.example.com or 3.example.com, you would enter: `'udp and port 1812 and src host 1.example.com and dst \ ( 2.example.com or 2.example.com \)'`
<verbose>	Enter one of the following numbers indicating the depth of packet headers and payloads to capture: • `1`: print header of packets (default) • `2`: print header and data from IP of packets • `3`: print header and data from ethernet of packets (if available) For troubleshooting purposes, Fortinet Technical Support may request the most verbose level (`3`).
<count>	Enter the number of packets to capture before stopping. If you do not specify a number, the command will continue to capture packets until you press `CTRL + C`.
<Timestamp format>	Enter the timestamp format. • `a`: absolute UTC time, yyyy-mm-dd hh:mm:ss.ms • `l`: absolute LOCAL time, yyyy-mm-dd hh:mm:ss.ms • `otherwise`: relative to the start of sniffing, ss.ms

Example 1

The following example captures the first three packets' worth of traffic, of any port number or protocol and between any source and destination (a filter of `none`), that passes through the network interface named port1. The capture uses a low level of verbosity (indicated by `1`).

Commands that you would type are highlighted in bold; responses from the Fortinet unit are not in bold.

```
Packet capture can be very resource intensive. To minimize the performance impact on your
     FortiManager unit, use packet capture only during periods of minimal traffic, with a
     serial console CLI connection rather than a Telnet or SSH CLI connection, and be
     sure to stop the command when you are finished.# diag sniffer packet port1 none 1 3
interfaces=[port1]
filters=[none]
0.918957 192.168.0.1.36701 -> 192.168.0.2.22: ack 2598697710
0.919024 192.168.0.2.22 -> 192.168.0.1.36701: psh 2598697710 ack 2587945850
0.919061 192.168.0.2.22 -> 192.168.0.1.36701: psh 2598697826 ack 2587945850
```

If you are familiar with the TCP protocol, you may notice that the packets are from the middle of a TCP connection. Because port 22 is used (highlighted above in bold), which is the standard port number for SSH, the packets might be from an SSH session.

Example 2

The following example captures packets traffic on TCP port 80 (typically HTTP) between two hosts, 192.168.0.1 and 192.168.0.2. The capture uses a low level of verbosity (indicated by `1`). Because the filter does not specify either host as the source or destination in the IPv4 header (`src` or `dst`), the sniffer captures both forward and reply traffic.

A specific number of packets to capture is not specified. As a result, the packet capture continues until the administrator presses the control key + C. The sniffer then confirms that five packets were seen by that network interface.

Commands that you would type are highlighted in bold; responses from the Fortinet unit are not in bold.

```
Packet capture can be very resource intensive. To minimize the performance impact on your
     FortiManager unit, use packet capture only during periods of minimal traffic, with a
     serial console CLI connection rather than a Telnet or SSH CLI connection, and be
     sure to stop the command when you are finished.# diag sniffer packet port1 'host
     192.168.0.2 or host 192.168.0.1 and tcp port 80' 1
192.168.0.2.3625 -> 192.168.0.1.80: syn 2057246590
192.168.0.1.80 -> 192.168.0.2.3625: syn 3291168205 ack 2057246591
192.168.0.2.3625 -> 192.168.0.1.80: ack 3291168206
192.168.0.2.3625 -> 192.168.0.1.80: psh 2057246591 ack 3291168206
192.168.0.1.80 -> 192.168.0.2.3625: ack 2057247265
5 packets received by filter
0 packets dropped by kernel
```

Example 3

The following example captures all TCP port 443 (typically HTTPS) traffic occurring through port1, regardless of its source or destination IPv4 address. The capture uses a high level of verbosity (indicated by `3`).

A specific number of packets to capture is not specified. As a result, the packet capture continues until the administrator presses the control key + C. The sniffer then confirms that five packets were seen by that network interface.

Verbose output can be very long. As a result, output shown below is truncated after only one packet.

Commands that you would type are highlighted in bold; responses from the Fortinet unit are not in bold.

```
Packet capture can be very resource intensive. To minimize the performance impact on your
     FortiManager unit, use packet capture only during periods of minimal traffic, with a
     serial console CLI connection rather than a Telnet or SSH CLI connection, and be
     sure to stop the command when you are finished. # diag sniffer port1 'tcp port 443'
     3
interfaces=[port1]
filters=[tcp port 443]
10.651905 192.168.0.1.50242 -> 192.168.0.2.443: syn 761714898
0x0000 0009 0f09 0001 0009 0f89 2914 0800 4500 ..........)...E.
0x0010 003c 73d1 4000 4006 3bc6 d157 fede ac16 .<s.@.@.;..W....
0x0020 0ed8 c442 01bb 2d66 d8d2 0000 0000 a002 ...B..-f........
0x0030 16d0 4f72 0000 0204 05b4 0402 080a 03ab ..Or............
0x0040 86bb 0000 0000 0103 0303 ..........
```

Instead of reading packet capture output directly in your CLI display, you usually should save the output to a plain text file using your CLI client. Saving the output provides several advantages. Packets can arrive more rapidly than you may be able to read them in the buffer of your CLI display, and many protocols transfer data using encoding other than US-ASCII. It is usually preferable to analyze the output by loading it into in a network protocol analyzer application such as Wireshark (http://www.wireshark.org/).

For example, you could use PuTTY or Microsoft HyperTerminal to save the sniffer output. Methods may vary. See the documentation for your CLI client.

Requirements

- terminal emulation software, such as PuTTY
- a plain text editor such as Notepad
- a Perl interpreter
- network protocol analyzer software, such as Wireshark

To view packet capture output using PuTTY and Wireshark:

1. On your management computer, start PuTTY.
2. Use PuTTY to connect to the Fortinet appliance using either a local serial console, SSH, or Telnet connection.
3. Enter the packet capture command, such as:
   ```
   diagnose sniffer packet port1 'tcp port 541' 3 100
   ```
   but do not press Enter yet.
4. In the upper left corner of the window, click the PuTTY icon to open its drop-down menu, then select *Change Settings*. A dialog appears where you can configure PuTTY to save output to a plain text file.
5. In the *Category* tree on the left, go to *Session* > *Logging*.
6. In *Session logging*, select *Printable output*.
7. In *Log file name*, click the *Browse* button, then choose a directory path and file name such as `C:\Users\MyAccount\packet_capture.txt` to save the packet capture to a plain text file. (You do not need to save it with the `.log` file extension.)
8. Click *Apply*.
9. Press Enter to send the CLI command to the FortiMail unit, beginning packet capture.
10. If you have not specified a number of packets to capture, when you have captured all packets that you want to analyze, press the `control key + C` to stop the capture.
11. Close the PuTTY window.
12. Open the packet capture file using a plain text editor such as Notepad.
13. Delete the first and last lines, which look something like this:
    ```
    =~=~=~=~=~=~=~=~=~=~=~=~= PuTTY log 2026.09.29 08:03:40 =~=~=~=~=~=~=~=~=~=~=~=~=
    Fortinet-2000 #
    ```
    These lines are a PuTTY timestamp and a command prompt, which are not part of the packet capture. If you do not delete them, they could interfere with the script in the next step.
14. Convert the plain text file to a format recognizable by your network protocol analyzer application.
    You can convert the plain text file to a format (.pcap) recognizable by Wireshark using the fgt2eth.pl Perl script. To download fgt2eth.pl, see the Fortinet Knowledge Base article Using the FortiOS built-in packet sniffer.

The fgt2eth.pl script is provided as-is, without any implied warranty or technical support, and requires that you first install a Perl module compatible with your operating system.

To use fgt2eth.pl, open a command prompt, then enter a command such as the following:

```
fgt2eth.pl -in packet_capture.txt -out packet_capture.pcap
```

where:

- `fgt2eth.pl` is the name of the conversion script; include the path relative to the current directory, which is indicated by the command prompt

- `packet_capture.txt` is the name of the packet capture's output file; include the directory path relative to your current directory
- `packet_capture.pcap` is the name of the conversion script's output file; include the directory path relative to your current directory where you want the converted output to be saved

15. Open the converted file in your network protocol analyzer application. For further instructions, see the documentation for that application.
    For additional information on packet capture, see the Fortinet Knowledge Base article Using the FortiOS built-in packet sniffer.

sql

Use this command to diagnose the SQL database.

sql config

Use this command to show, set, or reset the SQL database configuration.

Syntax

```
diagnose sql config auto-cache-delay [set <seconds>| reset]
diagnose sql config debug-filter [set | test] <daemon> <string>
diagnose sql config deferred-index-timespan [set <value>]
diagnose sql config hcache-agg-step [reset | set <integer>]
diagnose sql config hcache-auto-rebuild-status [reset | set <integer>]
diagnose sql config hcache-auto-rebuild-task-priority [reset | set <integer>]
diagnose sql config hcache-base-trim-interval [reset | set <integer>]
diagnose sql config hcache-max-base-row [reset | set <integer>]
diagnose sql config hcache-max-fv-row [reset | set <integer>]
diagnose sql config hcache-max-fv-row-per-timescale [reset | set <integer>]
diagnose sql config hcache-max-high-accu-row [reset | set <integer>]
diagnose sql config hcache-max-rpt-row [reset | set <integer>]
diagnose sql config sampling-max-row [reset | set <integer>]
diagnose sql config sampling-status [reset | set <integer>]
diagnose sql config sampling-type [reset | set <integer>]
```

Variable	Description
auto-cache-delay [set <seconds>| reset]	Show, set, or reset the auto-cache delay, in seconds (default = 300).
debug-filter {set | test} <daemon> <string>	Show sqlplugind and sqlreportd debug filter. Enter `sqlplugind`, `sqlreportd` or `both` as the `<daemon>`. Enter the filter string.
deferred-index-timespan [set <value>]	View or set the time span for the deferred index (default = 10000).
hcache-agg-step [reset | set <integer>]	Show, set, or reset the hcache aggregation step (default = 10).

Variable	Description
hcache-auto-rebuild-status [reset | set <integer>]	Show, set, or reset the status of hcache auto rebuild task (0 - 1, default = 1). • 0 = disable • 1 = enable
hcache-auto-rebuild-task-priority [reset | set <integer>]	Show, set, or reset the priority of hcache auto rebuild task (0 - 2, default = 1). • 0 = low • 1 = medium • 2 = high
hcache-base-trim-interval [reset | set <integer>]	Show, set, or reset the hcache base trim interval (3600 - 2147483647, default = 172800).
hcache-max-base-row [reset | set <integer>]	Show, set, or reset the max row number for base cache (1000 - 1500000, default = 1000000).
hcache-max-fv-row [reset | set <integer>]	Show, set, or reset max row number for FortiView hcache (1000 - 400000, default = 50000).
hcache-max-fv-row-per-timescale [reset | set <integer>]	Show, set, or reset max row number per timescale for FortiView hcache (0 - 40000, default = 0).
hcache-max-high-accu-row [reset | set <integer>]	Show, set, or reset max row number for high-accuracy hcache (1000 - 1000000, default = 400000).
hcache-max-rpt-row [reset | set <integer>]	Show, set, or reset max row number for report hcache (1000 - 400000, default = 18000).
sampling-max-row [reset | set <integer>]	Show, set, or reset max row number for sampling (1000 - 10000000, default = 1000000).
sampling-status [reset | set <integer>]	Show, set, or reset the sampling status. Enter 0 for disabling and 1 for enabling the sample status (0 - 1, default = 1).
sampling-type [reset | set <integer>]	Show, set, or reset the type of sampling (0 - 1, default = 0).

sql debug

Use this command to show or update the SQL debug statuses.

Syntax

```
diagnose sql debug chlog show [<filter>] [<NUM>]
diagnose sql debug chlog upload {ftp | sftp} <host> <dir> <user name> <password>
diagnose sql debug hcache-agg dbgoff
diagnose sql debug hcache-agg dbgon
diagnose sql debug hcache-agg delete
diagnose sql debug hcache-agg show [<filter>][<NUM>]
diagnose sql debug hcache-agg upload {ftp | sftp} <host> <dir> <user name> <password>
diagnose sql debug imexport dbgoff
diagnose sql debug imexport dbgon
diagnose sql debug imexport delete
```

```
diagnose sql debug imexport show [<filter>] [<NUM>]
diagnose sql debug imexport upload {ftp | sftp} <host> <dir> <user name> <password>
diagnose sql debug logview dbgoff
diagnose sql debug logview dbgon
diagnose sql debug logview delete
diagnose sql debug logview show [<filter>] [<NUM>]
diagnose sql debug logview upload {ftp | sftp} <host> <dir> <user name> <password>
diagnose sql debug pglog show [<filter>] [<NUM>]
diagnose sql debug pglog upload {ftp | sftp} <host> <dir> <user name> <password>
diagnose sql debug sqlqry auto-explain disable
diagnose sql debug sqlqry auto-explain enable <duration> <work-mem>
diagnose sql debug sqlqry dbgoff
diagnose sql debug sqlqry dbgon <level value>
diagnose sql debug sqlqry delete
diagnose sql debug sqlqry show [<filter>][<NUM>]
diagnose sql debug sqlqry upload {ftp | sftp} <host> <dir> <user name> <password>
```

Variable	Description
chlog show [<filter>] [<NUM>]	Show last lines of the Clickhouse log debug file. Set filter for debug file, and show last NUM lines of the debug file. The filter and NUM variables are optional.
chlog upload {ftp | sftp} <host> <dir> <user name> <password>	Upload Clickhouse log debug file to FTP or SFTP server. Enter host IP address, directory, user name, and password.
hcache-agg dbgoff	Disable hcache-agg debug output.
hcache-agg dbgon	Enable hcache-agg debug output.
hcache-agg delete	Delete hcache-agg debug file.
hcache-agg show [<filter>] [<NUM>]	Show the last 10 lines of the hcache-agg debug file. Set filter for the debug file, and show the last NUM lines of the debug file. The filter and NUM variables optional.
hcache-agg upload {ftp | sftp} <host> <dir> <user name> <password>	Upload hcache-agg debug file to FTP or SFTP server. Enter host IP address, directory, user name, and password.
imexport dbgoff	Disable Report import/export debug output.
imexport dbgon	Enable Report import/export debug output.
imexport delete	Delete Report import/export debug file.
imexport show [<filter>] [<NUM>]	Show the last 10 lines of the Report import/export debug file. Set filter for debug file, and show last NUM lines of the debug file. The filter and NUM variables are optional.
imexport upload {ftp | sftp} <host> <dir> <user name> <password>	Upload Report import/export debug file to FTP or SFTP server. Enter host IP address, directory, user name, and password.
logview dbgoff	Disable log view debug output.
logview dbgon	Enable log view debug output.
logview delete	Delete log view debug file.

Variable	Description
logview show [<filter>] [<NUM>]	Show the last 10 lines of the log view debug file. Set filter for debug file, and show last NUM lines of the debug file. The filter and NUM variables are optional.
logview upload {ftp | sftp} <host> <dir> <user name> <password>	Upload log view debug file to FTP or SFTP server. Enter host IP address, directory, user name, and password.
pglog show [<filter>] [<NUM>]	Show the last 10 lines of the Postgres log debug file. Set filter for debug file, and show last NUM lines of the debug file. The filter and NUM variables are optional.
pglog upload {ftp | sftp} <host> <dir> <user name> <password>	Upload Postgres log debug file to FTP or SFTP server. Enter host IP address, directory, user name, and password.
sqlqry auto-explain disable	Disable SQL query auto explain.
sqlqry auto-explain enable <duration> <work-mem>	Enable SQL query auto explain. Enter the duration in seconds and the local work_mem in MB.
sqlqry dbgoff	Disable SQL query debug output.
sqlqry dbgon <level value>	Enable SQL query debug output. Set SQL query debug level (1-5). The default level is 1. **Note:** When the debug level is `5`, the final SQL running in sqlreportd will show in the debug output as well.
sqlqry delete	Delete the SQL query debug file.
sqlqry show [<filter>] [<NUM>]	Show the last 10 lines of the SQL query debug file. Set filter for the debug file, and show the last NUM lines of the debug file. The filter and NUM variables are optional.
sqlqry upload {ftp | sftp} <host> <dir> <user name> <password>	Upload SQL query debug file to FTP or SFTP server. Enter host IP address, directory, user name, and password.

sql hcache

Use this command to show or update the SQL hcache.

Syntax

```
diagnose sql hcache add-task agg <adom> <norm-query-hash> <agg-level> <timestamp> <num-
     of-days>
diagnose sql hcache add-task agg-update <adom> <hid>
diagnose sql hcache add-task agg-update-level <adom> <agg-level> <status>
diagnose sql hcache check <adom> <start-time> <end-time> <query-tag/norm-qry-hash> <all>
     <limit>
diagnose sql hcache dump-task <filter>
diagnose sql hcache list <adom> <query-hash/tag> <filter> <detail>
diagnose sql hcache plan <adom> <start-time> <end-time> <query-tag/norm-qry-hash/sql>
     <is-fortiview> <max-time-scale>
diagnose sql hcache rebuild-both <adom> <start-time> <end-time> <reset>
diagnose sql hcache rebuild-fortiview <adom> <start-time> <end-time> <reset>
diagnose sql hcache rebuild-report <adom> <start-time> <end-time> <reset>
diagnose sql hcache rebuild-status
```

```
diagnose sql hcache show hcache <adom> <id>
diagnose sql hcache show hcache-query <adom> <norm-qry-hash>
diagnose sql hcache show hcache-res-tbl <adom> <res-tbl-id>
diagnose sql hcache show time <time> <time> <time> <time>
diagnose sql hcache status {all | all-summary | <adom>}
```

Variable	Description
add-task agg <adom> <norm-query-hash> <agg-level> <timestamp> <num-of-days>	Add an hcache agg task: • `adom`: The ADOM name. • `norm-query-hash`: The normalized query hash. • `agg-level`: The aggregation level. • `timestamp`: The timestamp (format = yyyy-mm-dd hh:mm:ss). • `num-of-days`: The number of days (1, 3, or 30).
add-task agg-update <adom> <hid>	Add an hcache agg update task: • `adom`: The ADOM name. • `hid`: The hcache agg ID.
add-task agg-update-level <adom> <agg-level> <status>	Add hcache agg update tasks for a specific agg level. • `adom`: The ADOM name. • `agg-level`: The agg level. • `status`: hcache status (`error` or `all`). Default value: `all`.
check <adom> <start-time> <end-time> <query-tag/norm-qry-hash> <all> <limit>	Check hcaches. • `adom`: The ADOM name. • `start-time`: The start time (format: yyyy-mm-dd hh:mm:ss). • `end-time`: The end time (format: yyyy-mm-dd hh:mm:ss). • `query-tag/norm-qry-hash`: Query tag or normalized query hash. • `all`: Show all log table entries, or 0 only those with no hcache. • `limit`: Limit.
dump-task <filter>	Dump hcache tasks. Enter the task filter.

list <adom> <query-hash/tag> <filter> <detail>	List hcaches:
	• `adom`: The ADOM name.
	• `query-hash/tag`: The hash or tag filter query, or `all` for all hcaches.
	• `filter`: Narrow down the hcache list search result by using a filter. The filter keywords include:
	  • `status`: The hcache status. `0`(Ready), `1`(Ready-Loss), `2`(In-Building), `3`(Error), `4`(Invalid-SQL), `5`(No-Data), `6`(Not-Ready).
	  • `fv_flag`: List FortiView/report only. `1`(fortiview), `0`(report).
	  • `sql`: The SQL query match. `'*'` for wildcard, e.g. *select*.
	  • `time_start`: Start of the log time. format: `yyyy-mm-dd hh:MM:ss`.
	  • `time_end`: End of the log time. format: `yyyy-mm-dd hh:MM:ss`.
	The following shows an example of the variable `<filter>`:
	• `"status=0,1,5 sql=\"*srcip, dstip*\" time_start>=\"2020-11-01 00:00:00\" time_end<=\"2020-11-30 23:59:59\""`.

Variable	Description
	Enter "" for no filter. • `detail`: Show detailed information.
plan <adom> <start-time> <end-time> <query-tag/norm-qry-hash/sql> <is-fortiview> <max-time-scale>	Plan hcaches: • `adom`: The ADOM name. • `start-time`: The start time (format: yyyy-mm-dd hh:mm:ss). • `end-time`: The end time (format: yyyy-mm-dd hh:mm:ss). • `query-tag/norm-qry-hash/sql`: The query tag, normalized query hash, or sql statement. • `is-fortiview`: Enter `1` for FortiView, or `0` for report. • `max-time-scale`: Maximum timescale.
rebuild-both <adom> <start-time> <end-time> <reset>	Rebuild hcache for both report and FortiView. • `adom`: The ADOM name or `all` for all ADOMs. • `start-time`: The start time (format: yyyy-mm-dd hh:mm:ss). • `end-time`: The end time (format: yyyy-mm-dd hh:mm:ss). • `reset`: Clean up all existing hcache tasks.
rebuild-fortiview <adom> <start-time> <end-time> <reset>	Rebuild hcache for FortiView only. • `adom`: The ADOM name or `all` for all ADOMs. • `start-time`: The start time (format: yyyy-mm-dd hh:mm:ss). • `end-time`: The end time (format: yyyy-mm-dd hh:mm:ss). • `reset`: Clean up all existing hcache tasks.
rebuild-report <adom> <start-time> <end-time> <reset>	Rebuild hcache for report only. • `adom`: The ADOM name or `all` for all ADOMs. • `start-time`: The start time (format: yyyy-mm-dd hh:mm:ss). • `end-time`: The end time (format: yyyy-mm-dd hh:mm:ss). • `reset`: Clean up all existing hcache tasks.
rebuild-status	Show report hcache rebuild/check status.
show hcache <adom> <id>	Show hcache information. Enter the ADOM name and hcache ID.
show hcache-query <adom> <norm-qry-hash>	Show hcache query information. Enter the ADOM name and the normalized query hash.
show hcache-res-tbl <adom> <res-tbl-id>	Show hcache result table information. Enter the ADOM name and the result table ID.
show time <time> <time> <time> <time>	Show hcache time. Enter up to four timestamps.
status {all | all-summary | <adom>}	Show detailed hcache information. Enter the ADOM name, `all-summary` for the summary, or `all` for all ADOMs.

sql process

Use this command to kill or list query processes in the the SQL database.

Syntax

```
diagnose sql process kill <pid>
diagnose sql process list [full]
```

Variable	Description
kill <pid>	Kill a running query.
list [full]	List running query processes.

sql remove

Use this command to remove from the SQL database.

Syntax

```
diagnose sql remove {hcache <adom> <start-time> <end-time> | query-cache | rebuild-db-
    flag | tmp-tabe}
```

Variable	Description

{hcache <adom> <start-time> <end-time> | query-cache | rebuild-db-flag | tmp-table}	Remove the selected information:
	• `hcache`: Remove the hcache tables created for the SQL report.
	  • `adom`: The ADOM name.
	  • `start-time`: The start time (format: yyyy-mm-dd hh:mm:ss).
	  • `end-time`: The end time (format: yyyy-mm-dd hh:mm:ss).
	• `query-cache`: Remove the SQL query cache for log search.
	• `rebuild-db-flag`: Remove the rebuild database flag. The system will exit the rebuild database state.
	• `tmp-table`: Remove the SQL database temporary tables.

sql show

Use this command to show SQL database information.

Syntax

```
diagnose sql show {db-size | hcache-size | log-filters | log-stfile <device-id> <vdom> |
    policy info <adom> }
```

Variable	Description
{db-size | hcache-size | log-filters | log-stfile <device-id> <vdom> | policy-info <adom>}	Show the database, hcache size, log filters, or log status file: • `db-size`: Show database size. • `hcache-size`: Show hcache size. • `log-filters`: Show log view searching filters.

Variable	Description
	• `log-stfile`: Show logstatus file for the specified device (for HA cluster, input the member's serial number) and VDOM. • `policy-info`: Show policy uuid and name map.

sql status

Use this command to show statuses of the SQL database.

Syntax

```
diagnose sql status {rebuild-adom <adom> | rebuild-db | run_sql_rpt | sqlplugind |
     sqlreportd | upgrade-db}
```

Variable	Description
{rebuild-adom <adom> | rebuild-db | run_sql_rpt | sqlplugind | sqlreportd}	Show the status: • `rebuild-adom <adom>`: Show SQL log database rebuild status of ADOMs. • `rebuild-db`: Show SQL log database rebuild status. • `run-sql-rpt`: Show run_sql_rpt status. • `sqlplugind`: Show sqlplugind status. • `sqlreportd`: Show sqlreportd status. • `upgrade-db`: Show log SQL database upgrade status.

sql upload

Use this command toupload sqlplugind messages / pgsvr logs via FTP or SFTP.

Syntax

```
diagnose sql upload {ftp | sftp} <host> <directory> <user_name> <password>
```

Variable	Description
{ftp | sftp} <host> <directory> <user_name> <password>	Upload sqlplugind messages / pgsvr logs with FTP or SFTP.

svctools

Import or export the FortiAnalyzer configuration (when FortiAnalyzer features are enabled), and run JSON files.

Syntax

```
diagnose svctools export local
diagnose svctools export remote <ip> <string> <username> <password>
diagnose svctools import local name <adom> <integer>
diagnose svctools import remote <ip> <string> <username> <password> <adom> <integer>
diagnose svctools run local filename
diagnose svctools run remote <ip> <string> <username> <password>
```

Variable	Description
export local	Export the configuration locally.
export remote <ip> <string> <username> <password>	Export the configuration to a remote FTP server.
import local name <adom> <integer>	Import a local configuration from the specified ADOM. Enable or disable upgrade mode.
import remote <ip> <string> <username> <password> <adom> <integer>	Import a remote configuration from an FTP server to the specified ADOM. Enable or disable upgrade mode.
run local filename	Run a local JSON file on the target.
run remote <ip> <string> <username> <password>	Run a remote file from an FTP server.

Example

```
# diagnose svctools export local
Export FortiAnalyzer(121), 1 of 15 ADOM.
Export FortiAuthenticator(137), 2 of 15 ADOM.
Export FortiCache(125), 3 of 15 ADOM.
Export FortiCarrier(117), 4 of 15 ADOM.
Export FortiClient(127), 5 of 15 ADOM.
Export FortiDDoS(135), 6 of 15 ADOM.
Export FortiMail(119), 7 of 15 ADOM.
Export FortiManager(131), 8 of 15 ADOM.
Export FortiNAC(141), 9 of 15 ADOM.
Export FortiProxy(139), 10 of 15 ADOM.
Export FortiSandbox(133), 11 of 15 ADOM.
Export FortiWeb(123), 12 of 15 ADOM.
Export Syslog(129), 13 of 15 ADOM.
Export others(115), 14 of 15 ADOM.
Export root(3), 15 of 15 ADOM.
Exported to /var/tmp/svctools_export
```

system

Use the following commands for system related settings.

system admin-session

Use this command to view and kill log in sessions.

Syntax

```
diagnose system admin-session kill <sid>
diagnose system admin-session list
diagnose system admin-session status
```

Variable	Description
kill <sid>	Kill a current session. • `<sid>`: Session ID
list	List log in sessions.
status	Show the current session.

system csf

Use this command for Security Fabric diagnostics.

Syntax

```
diagnose system csf authorization {accept | deny | pending-list} <SN> [name]
diagnose system csf downstream [-x] [-a]
diagnose system csf downstream-devices
diagnose system csf global
diagnose system csf upstream
```

Variable	Description

authorization {accept | deny | pending-list} <sn> [name]	Authorization requests and permits.
	• `{accept | deny | pending-list}`:
	  • `accept`: Authorize device to join CSF tree.
	  • `deny`: Deny device from joining CSF tree.
	  • `pending-list`: List of pending requests to join security fabric.
	• `<SN>`: Serial number.
	• `[name]`: Optional entry name (if not passed SN is used).

downstream [-x] [-a]	Show connected downstream devices. • `[-x]`: Show encrypted tokens. • `[-a]`: Show all devices.
downstream-devices	Show downstream fabric device.
global	Show a summary of all connected members in Security Fabric.
upstream	Show connected upstream devices.

system disk

Use this command to view disk diagnostic information.

Only `usage` is available on FortiManager-VM. Other `disk` related commands are only available on the hardware-based FortiManager.

Syntax

```
diagnose system disk attributes
diagnose system disk delete
diagnose system disk disable
diagnose system disk enable
diagnose system disk errors
diagnose system disk health
diagnose system disk info
diagnose system disk sed <sed-key>
diagnose system disk usage <parameter> <parameter> <parameter> <parameter> <parameter>
     <parameter> <parameter> <parameter> <parameter> <parameter>
```

Variable	Description
attributes	Show vendor specific SMART attributes.
delete	Delete the disk.
disable	Disable SMART support.
enable	Enable SMART support.
errors	Show the SMART error logs.
health	Show the SMART health status.
info	Show the SMART information.
sed <sed-key>	SED encryption key. The key requires 8-32 characters, and it must include upper case, lower case, number, and special character (excluding '\). Once the `sed-key` is set, you can use the following command to change it: `diagnose system disk sed <new-sed-key> <old-sed-key>` This command is only available on hardware models that support self-encrypting drives. For more information, see the FortiManager Administration Guide.
usage <parameter> ... <parameter>	Display the disk usage. Enter a parameter.

Parameter	Description
-a	Show file sizes.
-L	Follow all symlinks.

Variable	Description	
	Parameter	**Description**
	-H	Follow symlinks on the command line.
	-d N	Limit output to directories (and files with `-a`) of depth < N.
	-c	Show the grand total.
	-l	Count sizes many times if hard linked.
	-s	Display only a total for each argument.
	-x	Skip directories on different file systems.
	-h	Sizes in human readable format (e.g., 1K 243M 2G).
	-m	Sizes in megabytes.
	-k	Sizes in kilobytes (default).

system export

Use this command to export logs.

Syntax

```
diagnose system export autoupdatelog <sftp | ftp> <(s)ftp server> <username> <password>
     <directory> <filename>
diagnose system export crashlog <ftp server> <username> <password> <directory> <filename>
diagnose system export dminstallog <devid> <ftp server> <username> <password> <directory>
     <filename>
diagnose system export raidlog <ftp server> <username> <password> [remote path]
     [filename]
diagnose system export rpclog <ftp | sftp> <(s)ftp server> <username> <password>
     <directory> <filename>
diagnose system export umlog {ftp | sftp} <fdssvrd | fgdlinkd | fgdsvr | update | misc |
     fwmsvrd> <(s)ftp server> <username> <password> <directory> <filename>
diagnose system export upgradelog <ftp server> <username> <password> <directory>
     <filename>
diagnose system export vartmp <ftp server> <username> <password> <directory> <filename>
```

Variable	Description
autoupdatelog <sftp | ftp> <(s)ftp server> <username> <password> <directory> <filename>	Export autoupdate debug log files. For filename, enter the tgz filename. For example, `backup.tgz`.
crashlog <sftp | ftp> <(s)ftp server> <username> <password> <directory> <filename>	Export the crash log.

Variable	Description
dminstallog <devid> <sftp | ftp> <(s)ftp server> <username> <password> <directory> <filename>	Export the deployment manager install log.
raidlog <ftp server> <username> <password> [remote path] [filename]	Export the RAID log. This command is only available on devices that support RAID.
rpclog <ftp | sftp> <(s)ftp server> <username> <password> <directory> <filename>	Export RPC log files.
umlog {ftp | sftp} <fdssvrd | fgdlinkd | fgdsvr | update | misc | fwmsvrd> <(s)ftp server> <username> <password> <directory> <filename>	Export the update manager and firmware manager log files.
upgradelog <sftp | ftp> <(s)ftp server> <username> <password> <directory> <filename>	Export the upgrade error log.
vartmp <sftp | ftp> <(s)ftp server> <username> <password> <directory> <filename>	Export the system log files in `/var/tmp`.

system filesystem

Use this command to diagnose filesystem information.

Syntax

```
diagnose system filesystem hash <path> <depth>
diagnose system filesystem list <path>
```

Variable	Description
hash <path> <depth>	Print hashes of files in the filesystem. • `<path>`: Enter the path to parent directory. • `<depth>`: Enter the maximum depth of traversal (default: 99).
list <path>	List files in the filesystem. • `<path>`: Enter the path to parent directory.

system flash

Use this command to diagnose the flash memory.

Syntax

```
diagnose system flash list
```

Variable	Description
list	List flash images. The information displayed includes the image name, version, total size (KB), used (KB), percent used, boot image, and running image.

system fsck

Use this command to check and repair the filesystem.

Syntax

```
diagnose system fsck harddisk
diagnose system fsck reset-mount-count
```

Variable	Description
harddisk	Check and repair the file system, then reboot the system.
reset-mount-count	Reset the mount-count of the disk on the next reboot.

system geoip

Use these commands to get geographic IP information.

FortiManager uses a MaxMind GeoLite database of mappings between geographic regions and all public IPv4 addresses that are known to originate from them.

Syntax

```
diagnose system geoip dump
diagnose system geoip info
diagnose system geoip ip <ip>
```

Variable	Description
dump	Display all geographic IP information.
info	Display a brief geography IP information.
ip <ip>	Find the specified IP address' country.

Example

Find the country of the IP address 4.3.2.1:

```
FMG-VM64 # diagnose system geoip ip 4.3.2.1
4.3.2.1 : US - United States
```

system geoip-city

Use these commands to get geographic IP information at a city level.

Syntax

```
diagnose system geoip-city info
diagnose system geoip-city ip <ip>
```

Variable	Description
info	Display geographic IP information.
ip <ip>	Find the specified IP address' city.

system interface

Use this command to diagnose the interface.

Syntax

```
diagnose system interface segmentation-offload <intf-name> <action>
```

Variable	Description
segmentation-offload <intf-name> <action>	Print/set segmentation-offload for all interfaces: • `<intf-name>`: Enter the interface name (or enter `all` for all interfaces) • `<action>`: Enter one of `show/on/off` to show or switch on/off interfaces

system mapserver

Use this command to access the map server information.

Syntax

```
diagnose system mapserver checksum
diagnose system mapserver clearcache
diagnose system mapserver get
diagnose system mapserver test
```

Variable	Description
checksum	Get map server checksum.

Variable	Description
clearcache	Clear the map server cache.
get	Get the current map server.
test	Test the map server connection.

system ntp

Use this command to list NTP server information.

Syntax

```
diagnose system ntp status
```

Variable	Description
status	List NTP server information.

system print

Use this command to print server information.

Syntax

```
diagnose system print connector [adom] <server_type> <server> <tag>
diagnose system print cpuinfo
diagnose system print df [arg0] [arg1] [arg2] .... [arg9]
diagnose system print hosts
diagnose system print interface <interface>
diagnose system print ipcs
diagnose system print loadavg
diagnose system print netstat
diagnose system print partitions
diagnose system print route
diagnose system print rtcache
diagnose system print slabinfo
diagnose system print sockets
diagnose system print uptime
```

Variable	Description
connector [adom] <server_type> <server> <tag>	Print connector information. Enter the ADOM name, or Global, the server type (pxGrid, clearpass, or nsx), and then the server name.
cpuinfo	Print the CPU information.
df [arg0] [arg1] [arg2] .... [arg9]	Print the file system disk space usage. Optionally, enter arguments.

Variable	Description
hosts	Print the static table lookup for host names.
interface <interface>	Print the specified interface's information.
ipcs	Print inter-process communication IPC information.
loadavg	Print the average load of the system.
netstat	Print the network statistics for active Internet connections (servers and established).
partitions	Print the disk partition information.
route	Print the main route list.
rtcache	Print the contents of the routing cache.
slabinfo	Print the slab allocator statistics.
sockets	Print the currently used socket ports.
uptime	Print how long the system has been running.

system process

Use this command to view and kill processes.

Syntax

```
diagnose system process fdlist <pid> [list]
diagnose system process kill <signal> <pid>
diagnose system process killall <signal> <module>
diagnose system process list
```

Variable	Description
fdlist <pid> [list]	List all file descriptors that the process is using. • `<pid>`: Process ID • `[list]`: Optionally, process fdlist detail. Enter `ls` or `list`.
kill <signal> <pid>	Kill a process: • `<signal>`: Signal name or number, such as -9 or -KILL • `<pid>`: Process ID
killall <signal> <module>	Kill all the related processes. • `<signal>`: Signal name or number, such as -9 or -KILL • `<module>`: Scriptmgr/deploymgr/fgfm/httpd/securityconsole
list	List all processes running on the FortiManager. The information displayed includes the PID, user, VSZ, stat, and command.

system raid

Use this command to view RAID information.

This command is only available on FortiManager models that support RAID.

Syntax

```
diagnose system raid hwinfo
diagnose system raid status
```

Variable	Description
hwinfo	Show RAID controller hardware information.
status	Show RAID status.

system route

Use this command to help diagnose routes. The listed information includes the destination IP, gateway IP, netmask, flags, metric, reference, use, and interface for each IPv4 route.

The following flags can appear in the route list table:

- *U*: the route is up
- *G*: the route is to a gateway
- *H*: the route is to a host rather than a network
- *D*: the route was dynamically created by a redirect
- *M*: the route was modified by a redirect

Syntax

```
diagnose system route list
```

system route6

Use this command to help diagnose routes. The listed information includes the destination IP, gateway IP, netmask, flags, metric, reference, use, and interface for each IPv6 route.

For a list of flags that can appear in the route6 list table, see information for the `diagnose system route list` command above.

Syntax

```
diagnose system route6 list
```

system server

Use this command to start the FortiManager server.

Syntax

```
diagnose system server start
```

test

Use the following commands to test the FortiManager.

test application

Use this command to test applications. Multiple variables can be entered for each command.

Syntax

```
diagnose test application apiproxyd <integer> <integer> ... <integer>
diagnose test application archd <integer> <integer> ... <integer>
diagnose test application clusterd <integer> <integer> ... <integer>
diagnose test application csfd <integer> <integer> ... <integer>
diagnose test application execmd <integer> <integer> ... <integer>
diagnose test application fabricsyncd <integer> <integer> ... <integer>
diagnose test application fazalertd <integer> <integer> ... <integer>
diagnose test application fazcfgd <integer> <integer> ... <integer>
diagnose test application fazmaild <integer> <integer> ... <integer>
diagnose test application faznotify <integer> <integer> ... <integer>
diagnose test application fazsvcd <integer> <integer> ... <integer>
diagnose test application fazwatchd <integer> <integer> ... <integer>
diagnose test application filefwd <integer> <integer> ... <integer>
diagnose test application fileparsed <integer> <integer> ... <integer>
diagnose test application fortilogd <integer> <integer> ... <integer>
diagnose test application logfiled <integer> <integer> ... <integer>
diagnose test application logfwd <integer> <integer> ... <integer>
diagnose test application log-fetchd <integer> <integer> ... <integer>
diagnose test application miglogd <integer> <integer> ... <integer>
diagnose test application oftpd <integer> <integer> ... <integer>
diagnose test application rptchkd <integer> <integer> ... <integer>
diagnose test application rptsched <integer> <integer> ... <integer>
diagnose test application scansched <integer> <integer> ... <integer>
diagnose test application sdnproxyd <integer> <integer> ... <integer>
diagnose test application siemagentd <integer> <integer> ... <integer>
diagnose test application siemdbd <integer> <integer> ... <integer>
diagnose test application snmpd <integer> <integer> ... <integer>
diagnose test application sqllogd <integer> <integer> ... <integer>
diagnose test application sqlplugind <integer> <integer> ... <integer>
diagnose test application sqlreportd <integer> <integer> ... <integer>
diagnose test application sqlrptcached <integer> <integer> ... <integer>
```

```
diagnose test application syncsched <integer> <integer> ... <integer>
diagnose test application uploadd <integer> <integer> ... <integer>
```

Variable	Description
apiproxyd <integer> ...	API proxy daemon test usage: • 1: show PID • 2: show statistics and state • 20: fsa tracer log request • 21: fsa tracer log request • 99: restart daemon
archd <integer> ...	Archd daemon test usage: • 1: usage • 2: display content subdir info file • 3: force scan to archive ips files • 4: force preen content files • 99: restart daemon
clusterd <integer> ...	Clusterd daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: Thread pool status • 3: Log Cluster core • 4: Devices cache module • 5: Logging Topology module • 6: Avatar uploading module • 7: Meta-CSF uploading module • 8: Meta-InterfaceRole module • 9: Tunnel module • 10: oftpd file fwd module • 11: Service module • 97: HA module • 98: Monitor status • 99: Restart clusterd • 100: Restart clusterd and clusterd-monitor • 102: Various tests • 103: generate core dump (on or off) when cluster.monitor kills cluster.main
csfd <integer> ...	Security Fabric daemon test usage. • 1: Show stats • 2: Show plugin status • 4: Start csfd diagnostic stat collection • 5: Stop csfd diagnostic stat collection • 6: Toggle diagnostic collection type • 7: Print collected diagnostic stats • 10: Show query cache status • 30: Show worker processes information • 31: Kill/Recreate worker processes gracefully

Variable	Description
	• 32: Kill/Recreate worker processes by force (May loose tasks) • 33: Run a test job • 40: Show Upstream Path • 41: Show list of pending downstream authorizations • 42: Show list of authorized downstream nodes • 43: Show auth mode • 44: Show upstream mgmt info • 50: Show key info • 63: Show config versions • 80: Send test message to upstream • 81: Send test message to first downstream • 82: List unconfirmed outgoing messages • 83: List partial incoming messages • 84: List unconfirmed confirmations with extra data • 85: Dump timeout information • 86: Flush all outgoing messages • 90: Dump Table Counts • 91: Print Known Processes • 92: Send test message to root's cli-test-listener process • 100: Show cached downstream list • 110: Dump file meory usage info • 999: Restart
execmd <integer> ...	Execmd daemon test usage: • 1: show PID • 2: show statistics and state • 3: reset statistics and state • 4: show statistics of cmd tool • 5: reset statistics of cmd tool • 99: restart daemon
fabricsyncd <integer> ...	Fabricsyncd daemon test usage.
fazalertd <integer> ...	Fazalertd daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics and state • 4: show worker thread info • 5: show commit info • 99: restart daemon • 200: diag for event manager • 201: diag for alert parser • 203: diag for event engine debug settings • 204: diag for alert commit statistics

Variable	Description
	• 205: diag for event engine • 206: diag for event engine scheduler • 207: diag for event engine rocksdb stats • 500: diag for event engine rocks db
fazcfgd <integer> ...	Fazcfg daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics • 3: show merged ca info • 40: DVM cache diag info • 41: CSF diag info • 42: IntfRole diag info • 43: reload csf info in devtable • 44: show log device group stats • 45: check log device group • 46: metadata table diag info [sub-module] • 48: test update link prefixes file • 49: test update webfilter categories description file • 50: test get app icon • 51: test update app logo files • 52: dvm call stats • 53: dvm call stats clear • 54: check ips/app meta-data update • 55: log disk readahead get • 56: log disk readahead toggle • 57: fix redis service • 58: check redis service • 59: test update faz license • 60: test fortigate restful api • 65: log aggregation server stats • 66:log aggregation server stats toggle (debug only) • 67: test redis security connect [port] [key] [value] • 82: list avatar meta-data • 83: rebuild avatar meta-data table • 84: rebuild ips meta-data table • 85: rebuild app meta-data table • 86: rebuild FortiClient Vulnerability meta-data table • 88: update ffdb meta-data • 90: use built-in TIDB package and disable updating it • 91: enable updating TIDB package • 92: disable updating TIDB package • 93: switch on/off adom default report schedule

Variable	Description
	• 94: switch on/off report schedule by name • 97: set 'force_restore_data' flag for clickhouse start • 99: restart daemon This test is only functional when FortiAnalyzer features are enabled
fazmaild <integer> ...	Fazmaild daemon test usage: • 1: show PID and daemon status • 2: show runtime status • 90: pause sending mail • 91: resume sending mail • 99: restart fazmaild daemon This test is only functional when FortiAnalyzer features are enabled
faznotify <integer> ...	Faznotify daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show faznotify statistics [clear] • 3: show faznotifyspecific connector statistics <adom> <webhook-name> [clear] • 10: send a faznotify <adom> <id> <send-data> • 20: show active channel • 29: delete active channel <adom> <id> • 30: pause active channel <seconds> • 40: test webhook server <adom> <webhook-name> • 41: test oauth2 token server <adom> <webhook-name> • 99: restart This test is only functional when FortiAnalyzer features are enabled
fazsvcd <integer> ...	Fazsvcd daemon test usage: • 1: show PID • 2: show daemon stats and status • 3: list async search threads • 4: dump async search slot info • 5: show cache builder stats • 6: dump cache builder playlist • 7: dump log search filters • 10: show database log stats aggregated per day • 11: show received log stats aggregated per day • 20: show avatar request stats • 50: enable or disable cache builder • 51: enable or disable auto custom index • 52: enable or disable skip-index usage • 53: enable or disable agg group skip-index usage • 54: enable or disable search cache usage • 55: show current search caches • 57: Fazbroker stats • 58: Reset Fazbroker stats

Variable	Description
	• 60: rawlog idx cache test • 61: logbrowse cache stats • 62: FortiView Session Stats • 70: show stats for device vdom cache • 71: show stats for remote fortiview and reports • 72: show filterable and sortable fields for fortiview. <v3.0 view name> • 73: show stats for the address object uuid2name cache • 74: clear the address object uuid2name cache • 75: data masking test: <passwd> <plaint test> <1|0 (high secure)> [do_ unmasking] • 76: fazsvcd fabric service diagnostics • 77: Fabric of FAZ api aggregation stats • 78: Fabric of FAZ session table list • 79: Fabric of FAZ logsearch session stats [reqid] • 99: restart daemon • 100: log FAZ debugs • 101: Close FAZ debug log • 200: gui api test • 201: diag for jsonrpc .. This test is only functional when FortiAnalyzer features are enabled
fazwatchd <integer> ...	Fazwatchd daemon test usage: • 1: show process summary and report stats • 2: show playbook stats • 4: show nac asset stats • 5: show playbook task log • 6: show ha command execution stats • 7: show casb metadata stats • 8: show ems metadata stats • 9: show pgsvr.log monitor stats • 99: restart daemon This test is only functional when FortiAnalyzer features are enabled
filefwd <integer> ...	Filefwd daemon test usage: • 1: show daemon PID • 2: show daemon stats • 3: show threads stats • 99: restart daemon
fileparsed <integer> ...	Fileparsed daemon test usage: • 1: show PID • 2: show statistics and state • 3: show devtable local cache status • 4: reload devtable local cache. • 11: show FortiGate interface cache status • 12: show FortiGate interface parsers status

Variable	Description
	• 13: show FortiGate interface archived files disk usage • 14: show FortiGate interface archived files retention days • 15: show FortiGate interface info • 16: show total number of interfaces trimmed from database • 17: show FortiGate policy files process status • 18: show total number of policy records in database • 98: rebuild FortiGate interface SQL tables • 99: restart daemon
fortilogd <integer> ...	Fortilogd Diag test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: dump message status • 3: logstat status • 4: client devices status • 5: print log received • 6: switch on/off debug messages • 7: log forwarding prep status • 8: show logUID info • 9: device log cache reloading status • 10: dz_client cache status • 11: file stats • 12: stop/restart receiving logs • 14: show cached adom lograte status • 15: show cached adom log volume status • 16: show appevent logs receiving info • 17: show logging rate of the system and per-device • 18: show per-ADOM log rate and rate limit • 90: show or set fortilogd working status • 95: show runtime logs. option format: pid=0:current,-1:all,PID duration=DURA filter=STR • 98: memory check • 99: restart fortilogd
logfiled <integer> ...	Logfile daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics and state • 4: show ADOM statistics • 5: show device statistics • 6: show auto-del statistics • 7: show log file disk usage • 8: update log file disk usage • 9: show inode usage • 10: enable or disable debug filterof device and vdom • 11: du cache diag commands

Variable	Description
	• 12: force to checkthe oldest log litime when trim log files. • 90: reset statistics and state • 91: force to preen content files info • 99: restart daemon
logfwd <integer> ...	Logfwd daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ..) • 2: Dump thread-pool status • 3: Dump log-forward configurations • 4: Dump log-forwarding status • 5: Overall and converter stats • 6: Dump HA CID info • 7: show runtime logs. option format: pid=0:current,-1:all,PID duration=DURA filter=STR • 8: show cfile list status [all: for all cfiles] • 9: show max durationof loss in memory mode, 120 seconds default, 0 to disable memory mode • 10: Force logfwd to run in disk mode [1:enable, 0:disable] • 97: memory check • 98: Reset log-forwarding stats • 99: Restart logfwd
log-fetchd <integer> ...	Log-fetch daemon test usage: • 1: show PID • 2: show states • 3: show running sessions • 99: restart the daemon
miglogd <integer> ...	Miglogd daemon test usage: • 1: show PID • 2: dump memory pool • 99: restart daemon
oftpd <integer> ...	Oftpd daemon test usage: • 1: show PID • 2: show statistics and state • 3: show connected device name and IP • 4: show detailed session state • 5: show oftp request statistics • 6: show cmdb device cache • 7: show logfwd thread stats • 8: show tasklist statistics • 9: show unreg dev cache • 10: log cluster bridge stats • 12: show HA group cache • 13: show file fwd stats

Variable	Description
	• 14: show fct software inventory cache • 15: show fgt interface stats • 16: show fos-auto device dump. [dev] to dump device list • 17: show device logging rate & rate-limit. [enable] to force tracking log-rate or [disable] to track only rate-limited devices. [config] to show config • 18: show fgt policy info, [dev] to dump device list • 21: dump oftp-restapi-sched stats • 22: dump oftp-restapi-sched status • 23: dump oftp csf member status • 30: dump csf groups data in all adoms in json string • 31: show csf groups update stats • 32: reschedule all restapi task for designated devid • 40: test loading a CA cert from local path • 50: display logtypes for all devid • 60: display login requests stats • 80: set region • 90: reload un-reg device tree • 91: delete designated csf group • 92: reload reg dev cache • 95: debug output • 99: restart daemon
rptchkd <integer> ...	Sqlrptcache daemon test usage: • 1: show PID • 2: show statistics and state • 3: reset statistics and state • 4: list adoms • 6: list schedules • 55: re-check an adom • 99: restart daemon • 910: enable rptchkd • 911: disable rptchkd
rptsched <integer> ...	Rptschedler daemon test usage: • 1: show PID • 2: show statistics and state • 3: reset statistics and state • 99: restart daemon
scansched <integer> ...	Scansched daemon test usage: • 1: show PID • 2: show statistics and state • 3: reset statistics and state • 11: show ioc-rescan task status • 99: restart daemon

Variable	Description
sdnproxyd <integer> ...	SDN proxy daemon test usage.
siemagentd <integer> ...	Siemagentd daemon test usage: • 1: show PID • 2: show daemon statistics • 3: show workers log stats • 4: show workers status stats • 5: show workers pools status • 6: siem workers reload config • 7: siem workers engine info dump • 20: show the siem stream storage info • 21: show the latest siem stream submitted in redis • 99: restart daemon • 200: diag for log based alert (event mgmt) • 201: diag for siemagentd configuration
siemdbd <integer> ...	Siemdbd daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics and state • 3: show running processes • 4: show writers info • 5: show splitter info • 6: show Adom database info • 7: show trimmer info • 8: show the shared Materialized View disk usage info • 9: set/reset max memory usage ratio • 10: add or drop skip indices on SIEM table • 11: cleanup CH tmp_merge dir • 41: show writer 1 info • 42: show writer 2 info • 43: show writer 3 info • 97: clear redis stream • 99: restart daemon
snmpd <integer> ...	SNMP daemon test usage: • 1: display daemon pid • 2: display snmp statistics • 3: clear snmp statistics • 4: generate test trap (cpu high) • 5: generate test traps (log alert, rate, data rate) • 6: generate test traps (licensed gb/day, device quota) • 99: restart daemon

Variable	Description
sqllogd <integer> ...	SqlLog daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics and state • 3: show worker init state • 4: show worker thread info • 5: show log device scan info, optionally filter by <devid> • 7: show ADOM device list by <adom-name> • 8: show logUID info • 9: show ADOM scan sync info, optionally filter by <adom> • 10: show FortiClient dev to sql-ID (sID) map • 11: show devtable cache info • 12: show intfrole cache info • 41: show worker 1 info • 51: show worker 1 registered log devices • 61: show worker 1 open log file cache • 70: show sql database building progress • 71: show the progress of upgrading log files into per-vdom storage • 72: run the upgrading log files into per-vdom storage • 80: show daemon status flags • 81: show debug zone devices status • 82: show all adoms with member devices or filer by <adom-name> • 83: show all registered logdevs • 84: show all unreg logdevs • 85: show fazid map stats • 91: diag worker devvd loadbalance • 95: request to rebuild SQL database for local event logs • 96: resend all pending batch files to sqlplugind • 97: rebuilding warm restart • 98: set worker assignment to policy 'round-robin' or 'adom-affinity', daemon will restart on policy change. • 99: restart daemon • 200: diag for log based alert (event mgmt) .. • 201: diag for utmref cache .. • 202: diag for fgt-fct corelation .. • 203: diag for logstat .. • 204: diag for IoC .. • 205: diag for endpoint and enduser .. • 206: diag for ueba .. • 207: diag for FSA scan session .. • 208: diag for audit report event process .. • 209: diag for shadow it info .. • 221: estimated browsing time stats • 222: fsa devmap cache info • 224: fgt lograte cache info

Variable	Description
	• 225: dump enum field error cache • 226: reset enum field error cache • 227: dump tz field error cache • 228: reset tz field error cache
sqlplugind <integer> ...	Sqlplugind daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show daemon stats • 3: show SIEM table stats • 4: show table compressor stats • 5: show table compressor Adom stats • 6: show table slow upgrade info • 91: scan hcache query templates and clean up unused • 98: scan and clean zombie cstore files • 99: restart daemon
sqlreportd <integer> ...	Sqlreportd daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show daemon stats • 3: show restorable table schema • 4: show restorable table status • 5: delete SQL restorable table files in collector mode <ADOM> • 99: restart daemon
sqlrptcached <integer> ...	Sqlrptcache daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics and state • 3: reset statistics and state • 5: dump auto-cache charts • 99: restart daemon
syncsched <integer> ...	Syncsched daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show report nodes states • 3: show report syncing state • 4: show ha sync peers • 5: reset ha sync queue • 6: show ha elog sync • 10: sync reports with peer • 11: fsync stat • 12: fsync reload • 13: trim sync dir stat • 99: restart daemon
uploadd <integer> ...	Uploadd daemon test usage: • 1: Daemon info (PID, meminfo, backtrace ...) • 2: show statistics and state

Variable	Description
	• 3: reset statistics and state • 4: show uploadd queues content • 5: show upload server state • 50: clear log queue [mirror server1] • 51: clear log queue [mirror server2] • 52: clear log queue [mirror server3] • 53: clear log queue [backup] • 54: clear log queue [original request] • 55: clear log queues [all] • 56: clear report queue • 60: cloud storage bget backlog info • 61: cloud storage get setting pending info <setting name> • 62: cloud storage test connector <connector> <remote path> • 63: cloud storage get usage info • 99: restart daemon

test connection

Use this command to test connections.

Syntax

```
diagnose test connection fortianalyzer <ip>
diagnose test connection mailserver <server-name> <mail-from> <mail-to> [adom]
diagnose test connection syslogserver <server-name> [adom]
```

Variable	Description
fortianalyzer <ip>	Test the connection to the FortiAnalyzer.
mailserver <server-name> <mail-from> <mail-to> [adom]	Test the connection to the mail server. Enter the email account which this test email will be sent from and to. Optionally, enter the ADOM name.
syslogserver <server-name> [adom]	Test the connection to the syslog server. Enter the syslog server name. Optionally, enter the ADOM name.

test deploymanager

Use this command to test the deployment manager.

Syntax

```
diagnose test deploymanager getcheckin <devid>
diagnose test deploymanager reloadconf <devid>
```

Variable	Description
getcheckin <devid>	Get configuration check-in information from the FortiGate.
reloadconf <devid>	Reload configuration from the FortiGate.

test policy-check

Use this command to list or flush policy consistency checks.

Syntax

```
diagnose test policy-check flush
diagnose test policy-check list
```

Variable	Description
flush	Flush all policy check sessions.
list	List all policy check sessions.

test search

Use this command to test the search daemon.

Syntax

```
diagnose test search flush
diagnose test search list
```

Variable	Description
flush	Flush all search sessions.
list	List all search sessions.

test sftp

Use this command to test the secure file transfer protocol (SFTP) scheduled backup.

Syntax

```
diagnose test sftp auth <sftp server> <username> <password> <directory>
```

Variable	Description
<sftp server>	SFTP server IP address.
<username>	SFTP server username.
<password>	SFTP server password.
<directory>	The directory on the SFTP server where you want to put the file (default = /).

upload

Use these commands to perform request related actions.

upload clear

Use this command to clear the upload request.

Syntax

```
diagnose upload clear log {all | original | backup | mirror 1 | mirror 2 | mirror 3}
diagnose upload clear report
```

Variable	Description
log {all | original | backup | mirror 1 | mirror 2 | mirror 3	Clear log uploading requests. • `all`: Clear all log uploading requests. • `backup`: Clear log uploading requests in the backup queue. • `mirror 1`: Clear log uploading requests in the mirror queue for server 1. • `mirror 2`: Clear log uploading requests in the mirror queue for server 2. • `mirror 3`: Clear log uploading requests in the mirror queue for server 3. • `original`: Clear log uploading requests in the original queue.
report	Clear all report upload requests.

upload status

Use this command to get the running status.

Syntax

```
diagnose upload status
```

vpn

Use this command to flush SAD entries and list tunnel information.

Syntax

```
diagnose vpn tunnel flush-SAD
diagnose vpn tunnel list
```

Variable	Description
flush-SAD	Flush the SAD entries.
list	List tunnel information.

get

The `get` command displays all settings, even if they are still in their default state.

Although not explicitly shown in this section, for all `config` commands, there are related get and show commands that display that part of the configuration. Get and show commands use the same syntax as their related `config` command, unless otherwise specified.

CLI commands and variables are case sensitive.

The get command displays all settings, including settings that are in their default state.

Unlike the `show` command, `get` requires that the object or table whose settings you want to display are specified, unless the command is being used from within an object or table.

For example, at the root prompt, this command would be valid:

```
get system status
```

and this command would not:

```
get
```

fmupdate analyzer	fmupdate web-spam	system global	system ntp	system syslog
fmupdate av-ips	system admin	system ha	system password-policy	system tablesize
fmupdate custom-url-list	system alert-console	system ha-scheduled-check	system performance	system web-proxy
fmupdate disk-quota	system alertemail	system ha-status	system report	system workflow
fmupdate fct-services	system auto-delete	system interface	system route	
fmupdate fds-setting	system backup	system local-in-policy	system route6	
fmupdate fwm-setting	system certificate	system local-in-policy6	system saml	
fmupdate multilayer	system connector	system locallog	system sniffer	
fmupdate publicnetwork	system dm	system log	system snmp	
fmupdate server-access-priorities	system dns	system loglimits on page 316	system soc-fabric	

fmupdate server-override-status	system fips	system mail on page 317	system sql on page 322
fmupdate service	system fortiview	system metadata	system status

fmupdate analyzer

Use this command to view forward virus report to FDS.

Syntax

```
get fmupdate analyzer virusreport
```

fmupdate av-ips

Use this command to view AV/IPS update settings.

Syntax

```
get fmupdate av-ips advanced-log
```

fmupdate custom-url-list

Use this command to view the custom URL database.

Syntax

```
get fmupdate custom-url-list
```

fmupdate disk-quota

Use this command to view the disk quota for the update manager.

Syntax

```
get fmupdate disk-quota
```

Example

This example shows the output for `get fmupdate disk-quota`:

```
value : 51200
```

fmupdate fct-services

Use this command to view FortiClient update services configuration.

Syntax

```
get fmupdate fct-services
```

Example

This example shows the output for `get fmupdate fct-services`:

```
status : enable
port : 80
```

fmupdate fds-setting

Use this command to view FDS parameters.

Syntax

```
get fmupdate fds-setting
```

Example

This example shows the output for `get fmupdate fds-setting`:

```
User-Agent : Mozilla/5.0 (compatible; MSIE 9.0; Windows NT 6.1; Trident/5.0)
fds-clt-ssl-protocol: tlsv1.2
fds-ssl-protocol : tlsv1.2
fmtr-log : info
fortiguard-anycast : disable
fortiguard-anycast-source: fortinet
linkd-log : info
max-av-ips-version : 20
max-work : 1
push-override:
push-override-to-client:
send_report : enable
send_setup : disable
```

```
server-override:
system-support-faz :
system-support-fct :
system-support-fdc :
system-support-fgt :
system-support-fml :
system-support-fsa :
system-support-fts :
umsvc-log : info
unreg-dev-option : add-service
update-schedule:
   time: 00:10 wanip-query-mode : disable
```

fmupdate fwm-setting

Use this command to view firmware management settings.

Syntax

```
get fmupdate fwm-setting
```

Example

This example shows the output for `get fmupdate fwm-setting`:

```
auto-scan-fgt-disk : enable
check-fgt-disk : enable
fds-failover-fmg : enable
fds-image-timeout : 1800
immx-source : fmg
log : fwm_dm
multiple-steps-interval : 60
retry-interval : 60
retry-max : 10
send-image-retry : 0
upgrade-timeout:
```

fmupdate multilayer

Use this command to view multilayer mode configuration.

Syntax

```
get fmupdate multilayer
```

fmupdate publicnetwork

Use this command to view public network configuration.

Syntax

```
get fmupdate publicnetwork
```

fmupdate server-access-priorities

Use this command to view server access priorities.

Syntax

```
get fmupdate server-access-priorities
```

Example

This example shows the output for `get fmupdate server-access-priorities`:

```
access-public : disable
av-ips : disable
private-server:
web-spam : enable
```

fmupdate server-override-status

Use this command to view server override status configuration.

Syntax

```
get fmupdate server-override status
```

fmupdate service

Use this command to view update manager service configuration.

Syntax

```
get fmupdate service
```

Example

This example shows the output for `get fmupdate service`:

```
avips : enable
geoip : enable
query-antispam : enable
query-antivirus : disable
query-filequery : disable
query-iot : disable
query-outbreak-prevention: disable
query-webfilter : enable
webfilter-https-traversal: disable
```

fmupdate web-spam

Use this command to view web spam configuration.

Syntax

```
get fmupdate web-spam fgd-setting
```

system admin

Use these commands to view admin configuration.

Syntax

```
get system admin group [group name]
get system admin ldap [server entry name]
get system admin profile [profile ID]
get system admin radius [server entry name]
get system admin setting
get system admin tacacs [server entry name]
get system admin user [username]
```

Example

This example shows the output for `get system admin setting`:

```
access-banner : disable
admin-httpd-keep-alive-timeout: 5
admin-https-redirect: enable
admin-login-max : 256
admin-scp : enable
admin_server_cert : server.crt
allow_register : disable
```

```
    auth-addr : (null)
    auth-port : 443
    auto-update : enable
    banner-message : (null)
    central-ftgd-local-cat-id: disable
    chassis-mgmt : disable
    chassis-update-interval: 15
    device_sync_status : enable
    fgt-gui-proxy : enable
    fgt-gui-proxy-port : 8082
    firmware-upgrade-check: enable
    fsw-ignore-platform-check: disable
    gui-theme : jade
    http_port : 80
    https_port : 443
    idle_timeout : 900
    idle_timeout_api : 900
    idle_timeout_gui : 900
    idle_timeout_sso : 900
    install-ifpolicy-only: disable
    mgmt-addr : (null)
    mgmt-fqdn : (null)
    objects-force-deletion: enable
    offline_mode : disable
    preferred-fgfm-intf : (null)
    register_passwd : *
    sdwan-monitor-history: disable
    sdwan-skip-unmapped-input-device: disable
    shell-access : disable
    show-add-multiple : disable
    show-adom-devman : enable
    show-checkbox-in-table: disable
    show-device-import-export: disable
    show-fct-manager : disable
    show-hostname : disable
    show_automatic_script: disable
    show_grouping_script: enable
    show_schedule_script: disable
    show_tcl_script : disable
    traffic-shaping-history: disable
    unreg_dev_opt : add_allow_service
    webadmin_language : auto_detect
```

system alert-console

Use this command to view alert console information.

Syntax

```
get system alert-console
```

Example

This example shows the output for `get system alert-console`:

```
period : 7
severity-level : emergency
```

system alertemail

Use this command to view alert email configuration.

Syntax

```
get system alertemail
```

Example

This example shows the output for `get system alertemail`:

```
authentication : enable
fromaddress : (null)
fromname : (null)
smtppassword : *
smtpport : 25
smtpserver : (null)
smtpuser : (null)
```

system auto-delete

Use this command to view automatic deletion policies for logs, reports, DLP files, and quarantined files.

Syntax

```
get system auto-delete
```

system backup

Use the following commands to view backups:

Syntax

```
get system backup all-settings
get system backup status
```

Example

This example shows the output for `get system backup status`:

```
All-Settings Backup
   Last Backup: Tue Sep 29 08:03:35 2020
   Next Backup: N/A
```

system certificate

Use these commands to view certificate configuration.

Syntax

```
get system certificate ca [certificate name]
get system certificate crl [crl name]
get system certificate local [certificate name]
get system certificate oftp [certificate name]
get system certificate remote [certificate name]
get system certificate ssh [certificate name]
```

Example

This example shows the output for `get system certificate local Fortinet_Local`:

```
name : Fortinet_Local
password : *
comment : Default local certificate
private-key :
certificate :
   Subject: C = US, ST = California, L = Sunnyvale, O = Fortinet, OU = FortiManager, CN =
        FMG-VM0A11000137, emailAddress = support@fortinet.com
   Issuer: C = US, ST = California, L = Sunnyvale, O = Fortinet, OU = Certificate
        Authority, CN = support, emailAddress = support@fortinet.com
   Valid from: 2011-01-07 26:58:75 GMT
   Valid to: 2031-02-21 31:88:05 GMT
   Fingerprint: 0A:--:--:--:--:--:--:--:--:--:--:--:--:0B
   Root CA: No
   Version: 3
   Serial Num:
      89
   Extensions:
      Name: X509v3 Basic Constraints
      Critical: no
      Content:
      CA:FALSE
csr :
```

system connector

Use this command to view FSSO connector refresh intervals, in seconds.

Syntax

```
get system connector
```

Example

This example shows the output for `get system connector`:

```
cloud-orchest-refresh-interval: 300
conn-refresh-interval: 300
faznotify-msg-queue-max: 1000
faznotify-msg-timeout: 72
fsso-refresh-interval: 180
fsso-sess-timeout: 300
px-svr-timeout: 300
```

system csf

Use this command to view CSF configuration.

Syntax

```
get system csf
```

system dm

Use this command to view device manager information on your FortiManager unit.

Syntax

```
get system dm
```

Example

This example shows the output for `get system dm`:

```
concurrent-install-image-limit: 500
concurrent-install-limit: 480
concurrent-install-script-limit: 480
conf-merge-after-script: disable
```

```
discover-timeout : 6
dpm-logsize : 10000
fgfm-auto-retrieve-timeout: 1800
fgfm-install-refresh-count: 10
fgfm-sock-timeout : 360
fgfm_keepalive_itvl : 120
force-remote-diff : disable
fortiap-refresh-cnt : 500
fortiap-refresh-itvl: 10
fortiext-refresh-cnt: 50
handle-nonhasync-config: disable
install-fds-timeout : 10
install-image-timeout: 3600
install-tunnel-retry-itvl: 60
log-autoupdate : disable
max-revs : 100
nr-retry : 1
retry : enable
retry-intvl : 15
rollback-allow-reboot: disable
script-logsize : 100
skip-scep-check : disable
skip-tunnel-fcp-req : enable
verify-install : enable
```

system dns

Use this command to view DNS configuration.

Syntax

```
get system dns
```

Example

This example shows the output for `get system dns`:

```
primary : 111.11.111.11
secondary : 111.11.111.12
ip6-primary : ::
ip6-secondary : ::
```

system fips

Use this command to view FIPS configuration.

Syntax

```
get system fips
```

system fortiview

Use this command to view Fortiview configuration.

Syntax

```
get system fortiview auto-cache
get system fortiview setting
```

Example

This example shows the output for `get system fortiview auto-cache`:

```
aggressive-fortiview: disable
incr-fortiview: disable
interval : 168
status : enable
```

system global

Use this command to view global system settings.

Syntax

```
get system global
```

Example

This example shows the output for `get system global`:

```
admin-host: (null)
admin-lockout-duration: 60
admin-lockout-method: ip
admin-lockout-threshold: 3
admin-ssh-grace-time: 120
adom-mode : normal
adom-rev-auto-delete: by-revisions
adom-rev-max-backup-revisions: 5
adom-rev-max-revisions: 120
adom-status : disable
apache-mode : event
apache-wsgi-processes: 10
```

```
api-ip-binding : enable
clone-name-option : default
clt-cert-req : disable
console-output : standard
contentpack-fgt-install: disable
country-flag : enable
create-revision : disable
daylightsavetime : enable
default-disk-quota : 1000
detect-unregistered-log-device: enable
device-view-mode : regular
dh-params : 2048
disable-module : none
enc-algorithm : high
faz-status : disable
fcp-cfg-service : disable
fgfm-allow-vm : disable
fgfm-ca-cert:
fgfm-cert-exclusive: disable
fgfm-deny-unknown : disable
fgfm-local-cert : (null)
fgfm-ssl-protocol : tlsv1.2
fortiservice-port : 8013
gui-curl-timeout: 30
gui-feature-visibility-mode: per-adom
gui-install-preview-concurrency: 20
gui-polling-interval: 5
ha-member-auto-grouping: enable
hitcount-response-timeout: 60
hostname : FMG-VM64
import-ignore-addr-cmt: disable
language : english
latitude : (null)
ldap-cache-timeout : 86400
ldapconntimeout : 60000
log-checksum : none
log-checksum-upload : disable
log-forward-cache-size : 0
longitude : (null)
management-ip : (null)
management-port : 443
max-running-reports : 1
multiple-steps-upgrade-in-autolink : disable
no-copy-permission-check: disable
no-vip-value-check : disable
normalized-intf-zone-only: disable
object-revision-db-max: 100000
object-revision-mandatory-note: enable
object-revision-object-max: 100
object-revision-status: enable
oftp-ssl-protocol : tlsv1.2
partial-install : disable
partial-install-rev : disable
perform-improve-by-ha: disable
policy-object-icon : disable
policy-object-in-dual-pane: disable
pre-login-banner : disable
```

```
private-data-encryption : disable
remoteauthtimeout : 10
rpc-log : enable
save-last-hit-in-adomdb: disable
search-all-adoms : disable
skip-ip-check-in-session: disable
ssh-enc-algo : chacha20-poly1305@openssh.com aes256-ctr aes256-gcm@openssh.com
ssh-hostkey-algo : ecdsa-sha2-nistp521 rsa-sha2-256 rsa-sha2-512 ssh-ed25519
ssh-kex-algo : diffie-hellman-group14-sha256 diffie-hellman-group16-sha512 diffie-
     hellman-group18-sha512 diffie-hellman-group-exchange-sha256 curve25519-
     sha256@libssh.org ecdh-sha2-nistp256 ecdh-sha2-nistp384 ecdh-sha2-nistp521
ssh-mac-algo : hmac-sha2-256 hmac-sha2-256-etm@openssh.com hmac-sha2-512 hmac-sha2-512-
     etm@openssh.com
ssh-strong-crypto : enable
ssl-low-encryption : disable
ssl-protocol : tlsv1.3 tlsv1.2
ssl-static-key-ciphers: enable
table-entry-blink: enable
task-list-size : 2000
timezone : (GMT-8:00) Pacific Time (US & Canada).
tunnel-mtu : 1500
usg : disable
vdom-mirror : disable
webservice-proto : tlsv1.3 tlsv1.2
workspace-mode : disabled
```

system ha

Use this command to view HA configuration.

Syntax

```
get system ha
```

Example

This example shows the output for `get system ha`:

```
clusterid : 1
failover-mode : manual
file-quota : 4096
hb-interval : 10
hb-lost-threshold : 30
local-cert : (null)
mode : standalone
password : *
peer:
```

system ha-scheduled-check

Use this command to view HA integrity check configuration.

Syntax

```
get system ha-scheduled-check
```

Example

This example shows the output for `get system ha-scheduled-check`:

```
status : disable
time : (null)
```

system ha-status

Use this command to view additional HA configuration.

Syntax

```
get system ha-status
```

Example

This example shows the output for `get system ha-status`:

```
Cluster-ID : 1
Debug : off
File-Quota : 4096
HA Health Status : OK
HA Role : Primary
FMG-HA Status : Never Synchronized State
Model : FortiManager-VM64
HB-Interval : 10
HB-Lost-Threshold : 30
HA Primary Uptime : Wed Jul 7 06:33:35 2021
HA Primary state change timestamp :
HB-Lost-Threshold : 30
Primary : FMG-VM64, FMG-VM0000000000,
System Usage stats :
   FMG-VM0000000000(updated 0 seconds ago):
      average-cpu-user/nice/system/idle=0.05%/0.00%/0.00%/99.95%, memo ry=14.56%
```

system interface

Use this command to view interface configuration.

Syntax

```
get system interface [interface name]
```

Example

This example shows the output for `get system interface`:

```
== [ port1 ]
name: port1 status: enable mode : static ip: 172.172.172.222 255.255.0.0 speed: auto
== [ port2 ]
name: port2 status: enable mode : static ip: 0.0.0.0 0.0.0.0 speed: auto
== [ port3 ]
name: port3 status: enable mode : static ip: 0.0.0.0 0.0.0.0 speed: auto
== [ port4 ]
name: port4 status: enable mode : static ip: 1.1.1.1 255.255.255.255 speed: auto
```

This example shows the output for `get system interface port1`:

```
name : port1
status : enable
mode: static
ip : 172.172.172.222 255.255.255.0
allowaccess : ping https ssh snmp soc-fabric http webservice
serviceaccess :
speed : auto
description : (null)
alias : (null)
mtu : 1500
type : physical
ipv6:
   ip6-address: ::/0 ip6-allowaccess: ip6-autoconf: enable
```

system local-in-policy

Use this command to view the IPv4 local-in policy configuration.

Syntax

```
get system local-in-policy
```

system local-in-policy6

Use this command to view the IPv6 local-in policy configuration.

Syntax

```
get system local-in-policy6
```

system locallog

Use these commands to view local log configuration.

Syntax

```
get system locallog disk filter
get system locallog disk setting
get system locallog [fortianalyzer | fortianalyzer2 | fortianalyzer3] filter
get system locallog [fortianalyzer | fortianalyzer2 | fortianalyzer3] setting
get system locallog memory filter
get system locallog memory setting
get system locallog [syslogd | syslogd2 | syslogd3] filter
get system locallog [syslogd | syslogd2 | syslogd3] setting
```

Examples

This example shows the output for `get system locallog disk setting`:

```
status : enable
severity : information
upload : disable
server-type : FTP
max-log-file-size : 100
max-log-file-num : 10000
roll-schedule : none
diskfull : overwrite
log-disk-full-percentage: 80
log-disk-quota : 0
```

This example shows the output for `get system locallog syslogd3 filter`:

```
controller : enable
event : enable
devcfg : enable
devops : enable
diskquota : enable
dm : enable
dvm : enable
ediscovery : enable
```

```
epmgr : enable
eventmgmt : enable
faz : enable
fazsys : enable
fgd : enable
fgfm : enable
fmgws : enable
fmlmgr : enable
fmwmgr : enable
fortiview : enable
glbcfg : enable
ha : enable
hcache : enable
incident: enable
iolog : enable
logd : enable
logdb : enable
logdev : enable
logfile : enable
logging : enable
lrmgr : enable
objcfg : enable
report : enable
rev : enable
rtmon : enable
scfw : enable
scply : enable
scrmgr : enable
scvpn : enable
system : enable
webport : enable
```

system log

Use these commands to view log configuration.

Syntax

```
get system log alert
get system log device-disable
get system log fos-policy-stats
get system log interface-stats
get system log ioc
get system log mail-domain <id>
get system log ratelimit
get system log settings
get system log topology
```

Example

This example shows the output for `get system log settings`:

```
FAC-custom-field1 : (null)
FCH-custom-field1 : (null)
FCT-custom-field1 : (null)
FDD-custom-field1 : (null)
FGT-custom-field1 : (null)
FML-custom-field1 : (null)
FPX-custom-field1 : (null)
FSA-custom-field1 : (null)
FWB-custom-field1 : (null)
browse-max-logfiles : 10000
device-auto-detect : enable
dns-resolve-dstip : disable
download-max-logs : 100000
ha-auto-migrate : disable
import-max-logfiles : 10000
keep-dev-logs : disable
legacy-auth-mode : disable
log-file-archive-name: basic
log-process-fast-mode: disable
rolling-regular:
sync-search-timeout : 60
unencrypted-logging : disable
```

system loglimits

Use this command to view log limits on your FortiManager unit.

Syntax

```
get system loglimits
```

Example

This example shows the output for `get system loglimits`:

```
GB/day : 50
Peak Log Rate : 2100
Sustained Log Rate : 1400
```

Where:

GB/day	Number of gigabytes used per day.
Peak Log Rate	Peak time log rate.
Sustained Log Rate	Average log rate.

system mail

Use this command to view alert email configuration.

Syntax

```
get system mail [mail service id]
```

Example

This example shows the output for an alert email named `Test`:

```
id : Test
auth : disable
auth-type : psk
passwd : *
port : 25
secure-option : default
server : mailServer
user : mailperson@mailServer.com
```

system metadata

Use this command to view metadata settings.

Syntax

```
get system metadata admins [fieldname]
```

Example

This example shows the output for `get system metadata admins 'Contact Email'`:

```
fieldname : Contact Email
fieldlength : 50
importance : optional
status : enabled
```

system ntp

Use this command to view NTP configuration.

Syntax

```
get system ntp
```

Example

This example shows the output for `get system ntp`:

```
ntpserver:
   == [ 1 ]
   id: 1
status : enable
```

system password-policy

Use this command to view the system password policy.

Syntax

```
get system password-policy
```

Example

This example shows the output for `get system password-policy`:

```
status : enable
minimum-length : 11
must-contain : upper-case-letter lower-case-letter number non-alphanumeric
change-4-characters : disable
expire : 30
login-lockout-upon-downgrade: disable
```

system performance

Use this command to view performance statistics on your FortiManager unit.

Syntax

```
get system performance
```

Example

This example shows the output for `get system performance`:

```
CPU:
```

```
   Used: 4.89%
   Used(Excluded NICE): 4.89%
        %used %user %nice %sys %idle %iowait %irq %softirq
   CPU0 4.89 2.85 0.00 2.04 95.11 0.00 0.00 0.00
Memory:
   Total: 4,134,728 KB
   Used: 2,011,824 KB 48.7%
Hard Disk:
   Total: 82,434,456 KB
   Used: 44,018,112 KB 53.4%
   IOStat: tps r_tps w_tps r_kB/s w_kB/s queue wait_ms svc_ms %util sampling_sec
           6.9 5.5 1.4 193.4 195.4 0.0 5.1 0.7 0.5 108708.57
Flash Disk:
   Total: 499,656 KB
   Used: 113,504 KB 22.7%
   IOStat: tps r_tps w_tps r_kB/s w_kB/s queue wait_ms svc_ms %util sampling_sec
           0.0 0.0 0.0 0.0 0.0 0.0 1.4 0.6 0.0 108708.62
```

system report

Use this command to view report configuration.

Syntax

```
get system report auto-cache
get system report est-browse-time
get system report group [group id]
get system report setting
```

Example

This example shows the output for `get system report setting`:

```
aggregate-report : disable
ldap-cache-timeout : 60
max-table-rows : 1000000
max-pdf-rows : 10000
report-priority : auto
template-auto-install: default
week-start : sun
```

system route

Use this command to view IPv4 routing table configuration.

Syntax

```
get system route [seq_num]
```

Example

This example shows the output for `get system route 66`:

```
seq_num : 66
device : port5
dst : 0.0.0.0 0.0.0.0
gateway : 10.111.1.16
```

system route6

Use this command to view IPv6 routing table configuration.

Syntax

```
get system route6 [seq_num]
```

system saml

Use this command to view SAML configuration.

Syntax

```
get system saml
```

Example

This example shows the output for `get system saml`:

```
status : enable
role : SP
cert : Fortinet_Local2
server-address : 172.27.2.225
login-auto-redirect : enable
logout-request-signed : disable
logout-response-signed : disable
entity-id : http://172.27.2.225/metadata/
acs-url : https://172.27.2.225/saml/?acs
sls-url : https://172.27.2.225/saml/?sls
idp-entity-id : http://http://172.27.2.224/saml-idp/sg45/metadata/
idp-single-sign-on-url: https://http://172.27.2.224/saml-idp/sg45/login/
idp-single-logout-url: https://http://172.27.2.224/saml-idp/sg45/logout/
```

```
idp-cert : Remote_Cert_1
default-profile : Restricted_User
forticloud-sso : disable
user-auto-create : disable
```

system sniffer

Use this command to view the packet sniffer configuration.

Syntax

```
get system sniffer
```

system snmp

Use these commands to view SNMP configuration.

Syntax

```
get system snmp community [community ID]
get system snmp sysinfo
get system snmp user [SNMP user name]
```

Example

This example shows the output for `get system snmp sysinfo`:

```
contact_info : (null)
description : Test FMG
engine-id : (null)
location : (null)
status : enable
trap-cpu-high-exclude-nice-threshold: 80
trap-high-cpu-threshold: 80
trap-low-memory-threshold: 80
```

system soc-fabric

Use this command to view the SOC Fabric configuration.

Syntax

```
get system soc-fabric
```

Example

This example shows the output for `get system soc-fabric`:

```
status : disable
```

system sql

Use this command to view SQL configuration.

Syntax

```
get system sql
```

Example

This example shows the output for `get system sql`:

```
custom-index:
prompt-sql-upgrade : enable
status : local
text-search-index : disable
ts-index-field:
   == [ FGT-app-ctrl ]
   category: FGT-app-ctrl value:
        user,group,srcip,dstip,dstport,service,app,action,hostname
   == [ FGT-attack ]
   category: FGT-attack value: severity,srcip,dstip,action,user,attack
   == [ FGT-content ]
   category: FGT-content value: from,to,subject,action,srcip,dstip,hostname,status
   == [ FGT-dlp ]
   category: FGT-dlp value: user,srcip,service,action,filename
   == [ FGT-emailfilter ]
   category: FGT-emailfilter value: user,srcip,from,to,subject
   == [ FGT-event ]
   category: FGT-event value: subtype,ui,action,msg
   == [ FGT-traffic ]
   category: FGT-traffic value: user,srcip,dstip,service,app,utmaction
   == [ FGT-virus ]
   category: FGT-virus value: service,srcip,dstip,action,filename,virus,user
   == [ FGT-voip ]
   category: FGT-voip value: action,user,src,dst,from,to
   == [ FGT-webfilter ]
   category: FGT-webfilter value: user,srcip,dstip,service,action,catdesc,hostname
   == [ FGT-netscan ]
   category: FGT-netscan value: user,dstip,vuln,severity,os
   == [ FGT-fct-event ]
   category: FGT-fct-event value: (null)
   == [ FGT-fct-traffic ]
   category: FGT-fct-traffic value: (null)
   == [ FGT-fct-netscan ]
   category: FGT-fct-netscan value: (null)
```

```
   == [ FGT-waf ]
   category: FGT-waf value: user,srcip,dstip,service,action
   == [ FGT-gtp ]
   category: FGT-gtp value: msisdn,from,to,status
   == [ FGT-dns ]
   category: FGT-dns value: (null)
   == [ FGT-ssh ]
   category: FGT-ssh value: (null)
   == [ FML-emailfilter ]
   category: FML-emailfilter value: client_name,dst_ip,from,to,subject
   == [ FML-event ]
   category: FML-event value: subtype,msg
   == [ FML-history ]
   category: FML-history value: classifier,disposition,from,to,client_
        name,direction,domain,virus
   == [ FML-virus ]
   category: FML-virus value: src,msg,from,to
   == [ FWB-attack ]
   category: FWB-attack value: http_host,http_url,src,dst,msg,action
   == [ FWB-event ]
   category: FWB-event value: ui,action,msg
   == [ FWB-traffic ]
   category: FWB-traffic value: src,dst,service,http_method,msg
background-rebuild : enable
compress-table-min-age : 7
database-type : postgres
device-count-high : disable
event-table-partition-time: 0
fct-table-partition-time: 360
start-time : 00:00 2000/01/01
traffic-table-partition-time: 0
utm-table-partition-time: 0
```

system status

Use this command to view the status of your FortiManager unit.

Syntax

```
get system status
```

Example

This example shows the output for `get system status`:

```
Platform Type : FMG-VM64
Platform Full Name : FortiManager-VM64
Version : v6.0.1-build0150 180606 (GA)
Serial Number : F--------------7
BIOS version : 04000002
Hostname : FMG-VM64
Max Number of Admin Domains : 1000000000
```

```
Max Number of Device Groups : 1000000000
Admin Domain Configuration : Enabled
HA Mode : Stand Alone
Branch Point : 0150
Release Version Information : GA
Current Time : Tue Sep 29 08:09:05 PDT 2020
Daylight Time Saving : Yes
Time Zone : (GMT-8:00) Pacific Time (US & Canada).
x86-64 Applications : Yes
Disk Usage : Free 36.62GB, Total 78.62GB
File System : Ext4
License Status : Valid
```

system syslog

Use this command to view syslog information.

Syntax

```
get system syslog [syslog server name]
```

Example

This example shows the output for an syslog server named `Test`:

```
name : Test
ip : 10.10.10.1
port : 514
reliable : disable
```

system tablesize

Use this command to view the the system table sizes.

Syntax

```
get system tablesize
```

system web-proxy

Use this command to view the system web proxy.

Syntax

```
get system web-proxy
```

Example

This example shows the output for `get system web-proxy`:

```
status : disable
mode : tunnel
address : (null)
port : 1080
username : (null)
password : *
```

system workflow

Use this command to view workflow approval matrix information.

Syntax

```
get system workflow approval-matrix [adom]
```

show

The `show` commands display a part of your unit's configuration in the form of the commands that are required to achieve that configuration from the firmware's default state.

Although not explicitly shown in this section, for all `config` commands, there are related `show` commands that display that part of the configuration. The `show` commands use the same syntax as their related `config` command.

CLI commands and variables are case sensitive.

Unlike the `get` command, `show` does not display settings that are in their default state.

Example

```
FMG-VM64 # show sys glob
   config system global
      set adom-status enable
      set create-revision enable
      set detect-unregistered-log-device disable
      set device-view-mode tree
      set hostname "FMG-VM64"
   end
```

Appendix A - CLI Error Codes

Some FortiManager CLI commands issue numerical error codes. The following table lists the error codes and descriptions.

Error Code	Description
0	Success
1	Function called with illegal parameters
2	Unknown protocol
3	Failed to connect host
4	Memory failure
5	Session failure
6	Authentication failure
7	Generic file transfer failure
8	Failed to access local file
9	Failed to access remote file
10	Failed to read local file
11	Failed to write local file
12	Failed to read remote file
13	Failed to write remote file
14	Local directory failure
15	Remote directory failure

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