Dell EMC OpenManage Enterprise Modular Edition Version 1.00.01 for PowerEdge MX7000 Chassis
RACADM Command Line Reference Guide
Notes, cautions, and warnings

- **NOTE**: A NOTE indicates important information that helps you make better use of your product.
- **CAUTION**: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.
- **WARNING**: A WARNING indicates a potential for property damage, personal injury, or death.
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Introduction

This document provides information about the RACADM subcommands, supported RACADM interfaces, and property database groups and object definitions for Dell EMC OpenManage Enterprise Modular (OME – Modular).

Topics:
- Supported RACADM Interfaces
- RACADM Command Options
- Other documents you may need

Supported RACADM Interfaces

The RACADM command-line utility provides a scriptable interface that allows you to configure your OME - Modular. The utility runs on the management station and the managed system. It is available on the Dell OpenManage Systems Management and Documentation DVD or at dell.com/support.

The RACADM utility supports the following interfaces:

- SSH—Also referred as Firmware RACADM, is accessible by logging in to OME-Modular using SSH.
- Remote—Supports executing RACADM commands from a remote management station such as a laptop or desktop. Install the DRAC Tools utility from the OpenManage software on the remote computer to run remote RACADM commands. To execute remote RACADM commands, you must formulate the command such as an SSH RACADM command except that you must also use the \(-r -i\) options or the \(-r -u -p\) options. For more information about these options, see the "RACADM Subcommand Details."

**NOTE:** A log for remote racadm session (login or logout) is displayed in the Audit Logs page, irrespective of the remote racadm status. However, the feature does not work if the remote racadm option is disabled.

**NOTE:** For MX systems, if the TLS 1.2 is not enabled in the browser, remote RACADM commands fail.

RACADM Command Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-r &lt;raclpAddr&gt;)</td>
<td>Specifies the controller’s remote IP address.</td>
</tr>
<tr>
<td>(-u &lt;usrName&gt;)</td>
<td>Specifies the user name that is used to authenticate the command transaction. If the (-u) option is used, the (-p) option must be used, and the (-i) option is not allowed.</td>
</tr>
<tr>
<td>(-p &lt;password&gt;)</td>
<td>Specifies the password that is used to authenticate the command transaction. If the (-p) option is used, the (-i) option is not allowed.</td>
</tr>
<tr>
<td>(-S)</td>
<td>Specifies that RACADM should check for invalid certificate errors. RACADM stops the execution of the command with an error message if it detects an invalid certificate.</td>
</tr>
<tr>
<td>(-i &lt;indexnumber&gt;)</td>
<td>Specifies the index number for the indexed group, if applicable.</td>
</tr>
<tr>
<td>(-g &lt;groupname&gt;)</td>
<td>Specifies the group name, if applicable.</td>
</tr>
<tr>
<td>(-o objectname)</td>
<td>Specifies the object name, if applicable.</td>
</tr>
</tbody>
</table>
**Option**

<table>
<thead>
<tr>
<th>Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><code>-m objectname</code></td>
<td>Specifies the module.</td>
</tr>
</tbody>
</table>

**Table 2. Supported RACADM interfaces**

<table>
<thead>
<tr>
<th>Type</th>
<th>Local RACADM Address</th>
<th>SSH RACADM</th>
<th>Remote RACADM</th>
</tr>
</thead>
<tbody>
<tr>
<td>OME-Modular</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**NOTE:** Multiple instances of remote RACADM can be run on a management station.

**Displayable Characters**

Displayable characters include the following set:

- `abcdefghijklmnopqrstuvwxyz`
- `ABCDEFGHIJKLMNOPQRSTUVWXYZ`
- `0123456789~!@#$%^&*()_+-={}[\]\\|:";'<>.,/?`

**Other documents you may need**

**Table 3. List of documents**

<table>
<thead>
<tr>
<th>Name of the document</th>
<th>Brief introduction of the document</th>
</tr>
</thead>
<tbody>
<tr>
<td>OpenManage Enterprise Modular RACADM Command Line Reference Guide</td>
<td>This document contains information about the RACADM subcommands, supported interfaces, and property database groups and object definitions.</td>
</tr>
<tr>
<td>OpenManage Enterprise Modular Release Notes</td>
<td>This document provides the latest updates to the system or documentation or advanced technical reference material intended for experienced users or technicians.</td>
</tr>
<tr>
<td>OpenManage Enterprise and OpenManage Enterprise – Modular RESTful API Guide</td>
<td>This document provides information about integrating your applications with OpenManage Enterprise Modular, using the RESTful API commands.</td>
</tr>
<tr>
<td>Integrated Dell Remote Access Controller (iDRAC) User’s Guide</td>
<td>This document provides information about installation, configuration, and maintenance of the iDRAC on managed systems.</td>
</tr>
<tr>
<td>OS10 Enterprise Edition User Guide</td>
<td>This document provides information about the features of the OS10 switches and using commands in the IOM CLI to configure the switches.</td>
</tr>
<tr>
<td>Dell EMC PowerEdge MX7000 Enclosure Installation and Service Manual</td>
<td>This document provides information about installing and replacing components in the PowerEdge MX7000 enclosure.</td>
</tr>
<tr>
<td>Dell EMC PowerEdge MX5016s and MX5000s Installation and Service Manual</td>
<td>This document provides information about installing and replacing components in the PowerEdge MX5016s storage sled and PowerEdge MX5000s SAS IOM.</td>
</tr>
</tbody>
</table>
This section provides detailed descriptions about the RACADM subcommands, including the syntax and valid entries.

Topics:
- Guidelines to quote strings containing special characters when using RACADM commands
- Question mark and question mark with subcommand
- help and help with subcommand
- arp
- chassisaction
- chassisgroup
- chassislog
- cmcchangeover
- config
- connect
- deploy
- faultlist
- getconfig
- getmodinfo
- getniccfg
- getpbinfo
- getpminfo
- getsensorinfo
- getsysinfo
- ifconfig
- ping
- ping6
- racreset
- racresetcfg
- serveraction
- setniccfg
- swinventory
- traceroute
- traceroute6

Guidelines to quote strings containing special characters when using RACADM commands

When using strings that contain special characters, use the following guidelines:

Strings containing the following special characters must be quoted using double quotation marks:

- $(dollar sign)
NOTE: The - (dash) character cannot be the first character of the string, regardless of whether the string is quoted.

There are different escaping rules for double quotation marks.

There are different escaping rules for using single quotation mark and double quotation marks.

For using double quotation marks:

The following characters must be escaped by prepending a backward slash:

- $ (dollar sign)
- " (double quotation mark)
- ' (single quotation marks)
- ` (back quotation mark)
- \ (backward slash)

For example, use the following for a string that contains the special characters, $, "', ` and \.

For using single quotation marks:

- No character escaping is necessary.
- A single quotation mark cannot be used even with a backslash escaped.

NOTE: An empty string may be specified as either "" (using double quotation marks) or '' (using single quotation mark).

For an incorrectly formulated command, following are the possible errors:

- forbidden command
- invalid subcommand specified
- invalid syntax
- forbidden syntax

NOTE: If invalid command options are run in the RACADM CLI, unexpected error messages are displayed.

Question mark and question mark with subcommand

Description

Displays all the subcommands you can use with the RACADM command and a one-line description of each subcommand.

? followed by <subcommand> displays the syntax for the specified command.

You can also use the help and help <subcommand> commands to obtain the same information.
Synopsis

• racadm ?
• racadm ? <subcommand>

Input

racadm ?
racadm ? <subcommand>

Example

Example for RACADM ?
The following output example shows only part of the actual output for the racadm ? command. Descriptions shown in this example may vary slightly from the descriptions in your racadm session.

racadm ?

help -- list racadm subcommand description
help <subcommand> -- display usage summary for a subcommand
? -- list racadm subcommand description
? <subcommand> -- display usage summary for a subcommand
arp -- display the networking arp table
chassisaction -- execute chassis or switch power-up/down/cycle or
config -- modify OME-Modular configuration properties
...
setniccfg -- modify network configuration properties
traceroute -- determine the route of a packet
traceroute6 -- determine the route of a packet

Example for RACADM ? <subcommand>

racadm ? getsysinfo

getsysinfo -- display general OME-Modular and system information
Usage:
-----------------------------------------------------------
Valid Options:
-d : show OME-Modular information
-c : show chassis information
-4 : show OME-Modular IPv4 information
-6 : show OME-Modular IPv6 information

help and help with subcommand

Description
Lists all the subcommands available for use with RACADM and provides a short description for each. You may also type a subcommand, group, object, or FGDD alternate name after help.

Synopsis

• racadm help
• racadm help <subcommand>

Input

None

Example

racadm help

racadm help deploy

NOTE:
• The help command displays a complete list of subcommands.
• The racadm help <subcommand> command displays information for the specified subcommand only.
arp

Description Displays the networking ARP table.

Synopsis racadm arp

Input racadm arp

Example

Table 4. racadm arp

<table>
<thead>
<tr>
<th>Address</th>
<th>HWtype</th>
<th>HWaddress</th>
<th>Flags</th>
<th>Mask</th>
<th>Iface</th>
</tr>
</thead>
<tbody>
<tr>
<td>192.168.0.120</td>
<td>ether</td>
<td>00:00:5e:00:01:01</td>
<td>C</td>
<td></td>
<td>pub</td>
</tr>
<tr>
<td>192.168.1.120</td>
<td>ether</td>
<td>90:b1:1c:f4:32:09</td>
<td>C</td>
<td></td>
<td>pub</td>
</tr>
<tr>
<td>192.168.0.121</td>
<td>ether</td>
<td>90:b1:1c:f4:34:f4</td>
<td>C</td>
<td></td>
<td>pub</td>
</tr>
</tbody>
</table>

chassisaction

Description Executes the turn on, turn off, power cycle, or reset operation.

Synopsis racadm chassisaction [-m <module>] <action>

Input

- -m—Must be one of the following values:
  - chassis—Default state if -m is not specified.
  - switch-<n>—Where n=1-6
- <action>—Must be one of the following values:
  - powerdown—Graceful shutdown of the module.
  - powerup—Turns on the module.
  - powercycle—Power cycles the module.
  - nongraceshutdown—Non-graceful shutdown of the module.
  - reset—Hard reset of the management module.

**NOTE:** The valid options for <module = switch> are powercycle and reset.

Example

- Perform a reset of switch-2
  racadm chassisaction -m switch-2 reset
- Perform a powercycle of switch-1
  racadm chassisaction -m switch-1 powercycle
- Perform a non-graceful shutdown of the chassis
  racadm chassisaction -m chassis nongraceshutdown

chassisgroup

Description Approves or rejects the chassis addition requests. You can also use this command to view the chassis group details. Supported options are:
### racadm chassisgroup

**Synopsis**

```
racadm chassisgroup <chassisgroup command type>
```

**Input**

- `-m` — IPv4 address of standalone chassis.
- `-l` — IPv4 address of leader chassis.
- `-g` — Name of the chassis group.

**Examples**

- **Executes on a leader, adds a standalone chassis to the group:**
  ```
  racadm chassisgroup add -m 192.168.0.1
  ```
- **View members present in a group:**
  ```
  racadm chassisgroup view members
  ```
  - `--pending` — Pending requests to join the group.
  - `--discovered` — Discovered chassis in the wired environment.
- **Executes on a standalone, adds a standalone chassis to the group:**
  ```
  racadm chassisgroup add -g <groupname>
  ```
- **Executes on a standalone using lead IP, adds a standalone chassis to the group:**
  ```
  racadm chassisgroup add -l 192.168.0.1
  ```
- **Admits a chassis to the chassis group**
  ```
  racadm chassisgroup admit -m 192.168.0.1
  ```
- **Denies entry of the standalone chassis to the group:**
  ```
  racadm chassisgroup deny -m 192.168.0.1
  ```

### chassislog

**Description**

Allows you to manage the chassis log. Supported options are:

```
racadm chassislog view [-c <category>] [-s <severity>] [-b <subcategory>] [-q <sequence no.>] [-n <number of records>] [-r <start timestamp>] [-e <end timestamp>]
```

**Synopsis**

```
racadm chassislog <chassislog command type>
```

**Input**

To view chassis log

```
racadm chassislog view
```

**Example**

For help about a specific chassislog command type:

```
racadm chassislog help <chassislog command type>
```

### cmcchangeover

**Description**

Changes the redundant state of the management module from active to standby and standby to active.
Synopsis | racadm cmcchangeover
---|---
Input | racadm cmcchangeover
Example | NA

**NOTE:** During a failover, the chassis power state on the OME - Modular GUI is displayed as "off". The original power state is displayed after the inventory is refreshed.

### config

**Description**
Modifies RAC configuration properties.

**Synopsis**

```
racadm config -g <group> -o <object> <value> [-m<module>]
```

```
racadm config -g <group> -i <index> -o <object> <value>
```

**Input**

- `--g` — Configuration group to which the object belongs
- `--o` — Configuration object to configure
- `--i` — Index of indexed group, used with `--g` and `--o`
- `--m` — The module must have one of the following values: `storage-<n>` where n=1 to 8.

**NOTE:** The `storage-<n>` option is available only for `cfgStorageModule`

- `<value>` — Value of the configuration object

**Example**

- Configure a single property of a group:
  
  ```
  racadm config -g cfgLanNetworking -o cfgDNSRacName NAME
  ```

- Configure a single property of a group for a particular user:
  
  ```
  racadm config -g cfgUserAdmin -i 2 -o cfgUserAdminPassword PASSWORD
  ```

### connect

**Description**
Connects to blade serial console.

**Synopsis**

```
racadm connect [-b] -m <module>
```

**Input**

- `--b`— Binary mode
- `--m` — The `<module>` option must be one of the following values:
  - `server-<n>` — where n = 1 to 8

**CAUTION:** When executed from the OME–Modular serial console, the `connect` `-b` option stays connected until the management module resets or the serial console is terminated. This connection is a potential security risk.

**Example**

Connect to server 1 serial console:

```
racadm connect -m server-1
```

**NOTE:** Use quit key configured on the iDRAC to quit the console.
deploy

Description
Deploys blade or IOM by specifying required properties.

**NOTE:** The quick deploy command is not supported in RACADM.

Synopsis

```bash
racadm deploy -m server-<n> -u root -p <password> -s <ipaddress> <subnet> <gateway>

racadm deploy -m switch-<n> -u root -p <password> -d

racadm deploy -a [server|switch] -u root -p <password>
```

Input

- `-m`—<module>—must be one of the following values:
  - `-a`—[server|switch]—applies options to all modules present in the chassis of the given module type; if specified must be one of the following values:
    - server
    - switch

  **NOTE:** If the module type is not specified, the default type is server.

  **NOTE:** Switches must support ethernet management.

- `-u`—The username for servers and switches must be 'root'.

- `-p`—Password for the given username. For a server, the password must be 1-20 characters with ASCII value in the 32-126 range. For a switch, the password must be in the 6-32 characters with ASCII value in the 32-125 range.

  **NOTE:** You can configure only the "root" user password for servers and switches, using the deploy command.

- `-s`—The `<ipaddress> <subnet> <gateway>` sets static IPV4 network configuration for server. The `<ipAddress>`, `<netmask>`, and `<gateway>` must be typed as dotted decimal strings.

- `-d`—Enables DHCP for the specified server.

Example

- Set root password, configure static IPV4 address for server-1
  ```bash
  racadm deploy -m server-1 -u root -p <password> -s 192.168.0.20 255.255.255.0 192.168.0.1
  ```

- Set root password, configure static IPV6 address for server-1
  ```bash
  racadm deploy -m server-1 -u root -p <password> -s -6 2001:DB8::2 64 2001:DB8::1
  ```

- Set root password and enable DHCP for server-3
  ```bash
  racadm deploy -m server-3 -u root -p <password> -d
  ```

- Set password for switch-1
  ```bash
  racadm deploy -m switch-1 -u root -p <password>
  ```

- Set root password to "calvin" for all servers
  ```bash
  racadm deploy -a -u root -p calvin
  ```

- Set password for all switches
  ```bash
  racadm deploy -a switch -u root -p <password>
  ```
faultlist

Description
Displays the active error message in the chassis subsystem.

Synopsis
racadm faultlist view
$ racadm faultlist view

Example
SubSystem = System.Modular.7
Message = CPU 1 is absent
InstanceId = Fault#02200004#1
Severity = Critical
MessageId = CPU0003

SubSystem = PowerSupply
Message = The power input of power supply 1 is lost.
InstanceId = Fault#02200005#1
Severity = Critical
MessageId = PSU0003

SubSystem = PowerSupply
Message = The power input of power supply 5 is lost.
InstanceId = Fault#02200006#1
Severity = Critical
MessageId = PSU0005

getconfig

Description
Displays the configuration properties of OME - Modular.

Synopsis
racadm getconfig -g <group> [-mm <module>]
racadm getconfig -g <group> -o <object> [-mm <module>]
racadm getconfig -g <group> -i <index>
racadm getconfig -g <group> -o <object> -i <index>
racadm getconfig -h

Input
- -g—Specifies the configuration group to display
- -o—Specifies the configuration object to display. This option is used with -g.
- -i—Index of indexed group. This option is used with -g.
- -m—The <module> must have one of the following values:
  - storage-<n>—where n = 1 to 8
  
  🔄 | **NOTE:** The storage-<n> option is available only for cfgStorageModule.
- -h—Displays all the available configuration groups.

Example
- Display an entire group, in this case the LAN networking:
  racadm getconfig -g cfgLanNetworking
- Display a single object from a particular group:
  racadm getconfig -g cfgLanNetworking -o cfgDNSRacName
- Display an indexed group:
  racadm getconfig -g cfgUserAdmin -o cfgUserAdminPassword -i 2
• Display information about the service tag of the storage module:
  racadm getconfig -g cfgStorageModule -mm storage-<1 to 8> -o
cfgStorageModuleServiceTag

• Display all available configuration groups:
  racadm getconfig -h

---

### getmodinfo

**Description**

Gets module configuration and status information.

**NOTE:** If the Power Supply Unit (PSU) is absent, the RACADM interface displays the health state and power status for the PSU as N/A.

**Synopsis**

```
racadm getmodinfo [-m <module>]
```

**Input**

- `-m`—The `<module>` must have one of the following values:
  - `server-<n>`—Where n = 1 to 8
  - `switch-<n>`—Where n = 1 to 6
  - `mm-<n>`—Where n = 1, 2
  - `fan-<n>`—Where n = 1 to 9
  - `ps-<n>`—Where n = 1 to 6
  - `storage-<n>`—chassis

**Example**

- Display rollup status of all the modules in the chassis.
  racadm getmodinfo

- Display status of fan module 3 in the chassis.
  racadm getmodinfo -m fan-3

---

### getniccfg

**Description**

Displays the network settings for modules.

**Synopsis**

```
racadm getniccfg [-m <module>]
```

**Input**

- `-m`—The `<module>` must be one of the following values:
  - `chassis`—Default state if `-m` is not specified.
  - `switch-<n>`—Where n = 1–6

**Example**

- Display switch network settings
  racadm getniccfg -m switch-1

- Display chassis network settings
  racadm getniccfg -m chassis
getpbinfo

Description
Gets power budget status information. If there is no power supply to the PSU, the output of the command is displayed as "failed". If there is a mismatch in the power source, for example, a PSU of 220 volts and PSU of 110 volts are combined, then the output of the command is displayed as "Configuration Error".

Synopsis
racadm getpbinfo

Input
racadm getpbinfo

Example
racadm getpbinfo

[Power Budget Status]
System Input Power = 615 W (2098 BTU/h)
Peak System Power = 628 W (2142 BTU/h)
Peak System Power Timestamp = 11:37:36 08/08/2018
Minimum System Power = 606 W (2067 BTU/h)
Minimum System Power Timestamp = 10:16:08 08/06/2018
Overall Power Health = Not OK
Redundancy = No
System Input Power Cap = Disabled
Redundancy Policy = None
Dynamic PSU Engagement Enabled = Not Applicable
System Input Max Power Capacity = 11571 W
Input Redundancy Reserve = Not Applicable
Input Power Allocated to Servers = Not Applicable
Input Power Allocated to Chassis Infrastructure = Not Applicable
Total Input Power Available for Allocation = 2385 W (8137 BTU/h)
Standby Input Power Capacity = Not Applicable
Server Based Power Management Mode = Not Applicable
Max Power Conservation Mode = Not Applicable
Server Performance Over Power Redundancy = Not Applicable
Power Available for Server Power-on = Not Applicable
Available Power in EPP Pool = Not Applicable
Used Power in EPP Pool = Not Applicable
EPP Percent - Available = Not Applicable

[Chassis Power Supply Status Table]
<table>
<thead>
<tr>
<th>Name</th>
<th>Model</th>
<th>Power State</th>
<th>Input Current</th>
<th>Input Volts</th>
<th>Output Rated Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS1</td>
<td>PSU.Slot.1</td>
<td>Failed</td>
<td>0 A</td>
<td>0 V</td>
<td>3000 W</td>
</tr>
<tr>
<td>PS2</td>
<td>PSU.Slot.2</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS3</td>
<td>PSU.Slot.3</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS4</td>
<td>PSU.Slot.4</td>
<td>Online 228</td>
<td>2.73 A</td>
<td>228 V</td>
<td>3000 W</td>
</tr>
<tr>
<td>PS5</td>
<td>PSU.Slot.5</td>
<td>Absent</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>PS6</td>
<td>PSU.Slot.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

RACADM sub command details
getpminfo

Description
Gets power management status information.

Synopsis
racadm getpminfo

Input
racadm getpminfo

Example
[Real-Time Power Statistics]
System Input Power = 616 W (2101 BTU/h)
Peak System Power = 628 W (2142 BTU/h)
Peak System Power Start Time = Not Applicable
Peak System Power Timestamp = 11:37:36 08/08/2018
Minimum System Power = 606 W (2067 BTU/h)
Minimum System Power Start Time = Not Applicable
Minimum System Power Timestamp = 10:16:08 08/06/2018
System Idle Power = Not Applicable
System Potential Power = Not Applicable
System Input Current Reading = Not Applicable

[Real-Time Energy Statistics]
System Energy Consumption = 204 kWh
System Energy Consumption Start Time = Not Applicable
System Energy Consumption Timestamp = 05:47:05 08/20/2018

[System Power Status]
Chassis Power State = ON
Overall Power Health = Not OK
Redundancy = No

[System Power Policy Configuration]
System Input Power Cap = Disabled
Redundancy Policy = None
Dynamic PSU Engagement Enabled = Not Applicable

[Power Budgeting]
System Input Max Power Capacity = 11571 W
Input Redundancy Reserve = Not Applicable
Input Power Allocated to Servers = Not Applicable
Input Power Allocated to Chassis Infrastructure = Not Applicable
Total Input Power Available for Allocation = 2384 W (8134 BTU/h)
Standby Input Power Capacity = Not Applicable

RACADM sub command details
getsensorinfo

Description
Displays system sensors.

Synopsis
racadm getsensorinfo
racadm getsensorinfo -c

Input
racadm getsensorinfo
racadm getsensorinfo -c

where, -c—Compact output format

Example

• racadm getsensorinfo

<table>
<thead>
<tr>
<th>&lt;senType&gt;</th>
<th>&lt;Num&gt;</th>
<th>&lt;sensorName&gt;</th>
<th>&lt;status&gt;</th>
<th>&lt;reading&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>FanSpeed</td>
<td>1</td>
<td>Fan-1</td>
<td>Not OK</td>
<td>N/A</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FanSpeed</td>
<td>2</td>
<td>Fan-2</td>
<td>OK</td>
<td>17166</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>FanSpeed</td>
<td>3</td>
<td>Fan-3</td>
<td>OK</td>
<td>17250</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>FanSpeed</td>
<td>4</td>
<td>Fan-4</td>
<td>OK</td>
<td>17096</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FanSpeed</td>
<td>5</td>
<td>Fan-5</td>
<td>OK</td>
<td>14513</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FanSpeed</td>
<td>6</td>
<td>Fan-6</td>
<td>Not OK</td>
<td>N/A</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td>0</td>
<td>N/A</td>
</tr>
<tr>
<td>FanSpeed</td>
<td>7</td>
<td>Fan-7</td>
<td>OK</td>
<td>14510</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>FanSpeed</td>
<td>8</td>
<td>Fan-8</td>
<td>OK</td>
<td>14479</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FanSpeed</td>
<td>9</td>
<td>Fan-9</td>
<td>OK</td>
<td>14484</td>
</tr>
<tr>
<td>rpm</td>
<td>N/A</td>
<td>N/A</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>&lt;senType&gt;</th>
<th>&lt;Num&gt;</th>
<th>&lt;sensorName&gt;</th>
<th>&lt;status&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temp</td>
<td>1</td>
<td>Chassis Inlet Temperature</td>
<td>OK</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>Celsius</td>
<td>-7</td>
</tr>
<tr>
<td></td>
<td>47</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>&lt;senType&gt;</th>
<th>&lt;Num&gt;</th>
<th>&lt;sensorName&gt;</th>
<th>&lt;status&gt;</th>
<th>&lt;health&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>1</td>
<td>PS-1</td>
<td>Offline</td>
<td>Not OK</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>PS-2</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
<tr>
<td>PWR</td>
<td>3</td>
<td>PS-3</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>PS-4</td>
<td>Online</td>
<td>OK</td>
</tr>
<tr>
<td>PWR</td>
<td>5</td>
<td>PS-5</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>PS-6</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
</tbody>
</table>

• racadm getsensorinfo -c

Sensor Type: Fan

<table>
<thead>
<tr>
<th>&lt;Num&gt;</th>
<th>&lt;sensorName&gt;</th>
<th>&lt;status&gt;</th>
<th>&lt;reading&gt;</th>
<th>&lt;LC&gt;</th>
<th>&lt;UC&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Fan-1</td>
<td>Not OK</td>
<td>N/A</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>2</td>
<td>Fan-2</td>
<td>OK</td>
<td>17174</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>Fan-3</td>
<td>OK</td>
<td>17238</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>Fan-4</td>
<td>OK</td>
<td>17081</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>5</td>
<td>Fan-5</td>
<td>OK</td>
<td>14499</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>Fan-6</td>
<td>Not OK</td>
<td>N/A</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>7</td>
<td>Fan-7</td>
<td>OK</td>
<td>14502</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>8</td>
<td>Fan-8</td>
<td>OK</td>
<td>14505</td>
<td>rpm</td>
<td>N/A</td>
</tr>
<tr>
<td>9</td>
<td>Fan-9</td>
<td>OK</td>
<td>14479</td>
<td>rpm</td>
<td>N/A</td>
</tr>
</tbody>
</table>
Sensor Type: Temp

<table>
<thead>
<tr>
<th>Num</th>
<th>sensorName</th>
<th>status</th>
<th>reading</th>
<th>LC</th>
<th>UC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chassis Inlet Temperature</td>
<td>OK</td>
<td>27</td>
<td>C</td>
<td>-7</td>
</tr>
</tbody>
</table>

Sensor Type: Power

<table>
<thead>
<tr>
<th>Num</th>
<th>sensorName</th>
<th>status</th>
<th>health</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PS-1</td>
<td>Offline</td>
<td>Not OK</td>
</tr>
<tr>
<td>2</td>
<td>PS-2</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
<tr>
<td>3</td>
<td>PS-3</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
<tr>
<td>4</td>
<td>PS-4</td>
<td>Online</td>
<td>OK</td>
</tr>
<tr>
<td>5</td>
<td>PS-5</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
<tr>
<td>6</td>
<td>PS-6</td>
<td>Slot Empty</td>
<td>N/A</td>
</tr>
</tbody>
</table>

**getsysinfo**

**Description**
Displays general RAC and system information.

**Synopsis**

**Input**
- -d—Displays MM information
- -c—Displays chassis information
- -4—Displays IPv4 settings
- -6—Displays IPv6 settings

**Example**
- Displays Chassis Information
racadm getsysinfo -c
- Display MM Information
racadm getsysinfo -d

**ifconfig**

**Description**
Displays the network interface information.

**Synopsis**
racadm ifconfig

**ping**

**Description**
Sends ICMP echo packets on the network.

**Synopsis**
racadm ping <ipaddress>

**Input**
- <ipaddress>—The IP address of the remote endpoint to ping.

**Example**
To ping ip address 192.168.0.1
racadm ping 192.168.0.1

**ping6**

**Description**
Sends ICMP echo packets on the network.
Synopsis

racadm ping6 <ipaddress>

Input

<ipaddress>—The IPv6 address of the remote endpoint to ping.

Example

To ping ipaddress FE80:0000:0000:0000:0202:B3FF:FE1E:8329

racadm ping6 FE80:0000:0000:0000:0202:B3FF:FE1E:8329

racreset

Description

Resets the RAC.

Synopsis

racadm racreset

racresetcfg

Description

Restores the RAC configuration to factory defaults.

Synopsis

racadm racresetcfg

Running the racresetcfg command results in the following:

• Clears Management Module Configuration and resets to Initial settings.
• RedisCOVERS iDRAC.

**NOTE:** IDRAC discovery may take longer, as the Chassis may not receive the MDNS message from iDRAC immediately.

• Removes the MCM grouping functionality.

**NOTE:** The reset_config, reset_all, racresetcfg, FIPS_MODE ON/OFF workflow clear the database and the user information is not retained. Hence, configuration restoration is logged in DELL_INTERNAL_PROCESS.

• If the member chassis undergoes a factory reset, it becomes a stand-alone chassis and not a member of the multi-chassis group. You can remove the member from the lead chassis.

serveraction

Description

Manages the server or storage power. Supported actions are:

• powerdown—perform server power off
• powerup—perform server power on
• powercycle—perform server power cycle
• hardreset—force hard server power reset
• graceshutdown—perform graceful shutdown of server
• reseat—perform a virtual reseat of a server/storage

**NOTE:** This action requires -f option to force the action.

• powerstatus—display current power status of server

**NOTE:** This action is not allowed with -a option

Synopsis

racadm serveraction -m <module> <action>

racadm serveraction -a <action>
### Input
- `-m`—The `<module>` must be server-<n>, where n = 1 to 8
- `-a`—Performs power action on all servers

### Example
- Power action on a single server:
  ```
  racadm serveraction -m server-1 powerdown
  ```
- Power action on all servers:
  ```
  racadm serveraction -a powerup
  ```
- Reseat action on a single storage:
  ```
  racadm serveraction -m storage-2 -f reseat
  ```

### setniccfg

**Description**
Modifies network configuration properties.

**Synopsis**
```
racadm setniccfg [-m <module>] -d
racadm setniccfg [-m <module>] -s <ipAddress> <netmask> <gateway>
```

**Input**
- `-m`—The `<module>` option must be one of the following values:
  - `switch-<n>`, where n = 1-6
  - `chassis`—The default state if `-m` is not specified.
- `-d`—Enables DHCP for the Ethernet management port.
- `-s`—Enables static IP address, netmask, and gateway settings.

**NOTE:**
- Enter the IP address, netmask, and gateway as dotted decimal strings.
- Command also supports VLAN Configuration.
- `-v`—VLAN settings has the following legal values: `<vlan_id>` : 1-4000, 4021-4094

**NOTE:** Disable the DHCP option to configure the static IP.

**Example**
- Enable DHCP for a switch:
  ```
  racadm setniccfg -m switch-1 -d
  ```
- Configuration of switch to a static IPv4 address:
  ```
  racadm setniccfg -m switch-1 -s 192.168.0.120 255.255.255.0 192.168.0.1
  ```
- Configuration of chassis to a static IPv4 address:
  ```
  racadm setniccfg -m chassis -s 192.168.0.120 255.255.255.0 192.168.0.1
  ```
- Configuration of VLAN id for chassis:
  ```
  racadm setniccfg -m chassis -v 1000
  ```
- Removal of VLAN configuration from a chassis:
  ```
  racadm setniccfg -m chassis -v
  ```

### swinventory

**Description**
Displays the list of the software objects installed in the chassis.
### traceroute

**Description**
Prints the route packets trace to the network host.

**Synopsis**
```
racadm traceroute <host>
```

**Input**
- `<host>`—The IPv4 address or hostname of the remote endpoint to trace.

**Example**
To execute a trace route for IP address 192.168.0.2:
```
racadm traceroute 192.168.0.2
```

### traceroute6

**Description**
Prints the route packets trace to the network host.

**Synopsis**
```
racadm traceroute6 <host>
```

**Input**
- `<host>`—The IPv6 address/hostname of the remote end point to trace.

**Example**
To execute a trace route for address FE80:0000:0000:0000:0202:B3FF:FE1E:8329:
```
racadm traceroute6 FE80:0000:0000:0000:0202:B3FF:FE1E:8329
```
Replace this text with your content.

Topics:

• cfgLanNetworking
• cfgStorageModule
• cfgUserAdmin
• cfgRacTuning

**cfgLanNetworking**

This group contains parameters to configure OME Modular NIC for IPv4.

One instance of the group is allowed. Some objects in this group may require management module NIC to be reset, which may cause a brief loss in connectivity. Objects that change management module NIC IP address settings close all active user sessions and require users to reconnect using the updated IP address settings.

Use this object with the `config` or `getconfig` subcommands.

To use this object property, you must have the Chassis Configuration Administrator privilege.

**NOTE:** You can configure a setting that does not have a hash sign (#) prefixed in the output. To modify a configurable object, use the `—o` option.

The following `cfgDNSServer` are used with the `cfgLanNetworking` command:

• `cfgDNSServersFromDHCP=1`
• `cfgDNSServer1=`
• `cfgDNSServer2=`
• `cfgDNSRegisterRac=0`
• `cfgDNSRacName=mx-PT0004S`
• `cfgDNSDomainName=`
• `cfgDNSDomainNameFromDHCP=0`

**NOTE:** You can modify the `cfgDNSServer1` and `cfgDNSServer2` only when `cfgDNSServersFromDHCP` is 0. Else, the static DNS server settings are ignored.

**NOTE:** Disable Use DHCP for DNS Domain Name to configure the DNS Domain Name.

**NOTE:** Configure the DNS Name, DNS Domain Name, and DNS server address before enabling Register with DNS.

The following sections provide information about the objects in the `cfgLanNetworking` group.
cfgDNSServersFromDHCP (Read or Write)

**Description**
Specifies if the DNS server IPv4 addresses must be assigned from the DHCP server on the network.

This property is used only if `cfgNicUseDhcp` value is set to 1 (true).

**Legal Values**
- 1 — True
- 0 — False

**Default**
0

cfgDNSServer1 (Read or Write)

**Description**
Specifies the IPv4 address for DNS server 1. This property is only valid if `cfgDNSServersFromDHCP` is set to 0 (FALSE).

**NOTE:** `cfgDNSServer1` and `cfgDNSServer2` may be set to identical values while swapping addresses.

**Legal Values**
String representing a valid IPv4 address. For example: 192.168.0.20.

**Default**
0.0.0.0

cfgDNSServer2 (Read or Write)

**Description**
Retrieves the IPv4 address for DNS server 2. This parameter is only valid if `cfgDNSServersFromDHCP` is set to 0 (FALSE).

**NOTE:** `cfgDNSServer1` and `cfgDNSServer2` may be set to identical values while swapping addresses.

**Legal Values**
String representing a valid IPv4 address. For example: 192.168.0.20.

**Default**
0.0.0.0

cfgDNSRegisterRac (Read or Write)

**Description**
Registers the iDRAC or management module name on the DNS server. When you set this parameter, the management module registers its DNS name for its IPv4 and IPv6 addresses with the DNS server.

**Legal Values**
- 1 — True
- 0 — False

**Default**
0

**NOTE:** For IPv6, only the DHCPv6 address or static address is registered.
Example:
racadm getconfig -g cfgLanNetworking
cfgDNSServersFromDHCP=1
cfgDNSServer1=192.168.0.5
cfgDNSServer2=192.168.0.6
cfgDNSRacName=cmc-frankly
cfgDNSDomainName=fwad.lab
cfgDNSDomainNameFromDHCP=1
cfgDNSRegisterRac=1

cfgDNSRacName (Read or Write)

Description
Displays the management module name, which is Service Tag by default. This parameter is only valid if
 cfgDNSRegisterRac is set to 1 (TRUE).

Legal Values
A string of up to 63 ASCII characters. At least one character must be alphabetic.

NOTE: Some DNS servers only register names of 31 characters or fewer.

Default
cmc-<service tag>

cfgDNSDomainName (Read or Write)

Description
In the DNS domain name, parameter is only valid if cfgDNSDomainNameFromDHCP is set to 0 (FALSE).

Legal Values
A string of up to 254 ASCII characters. At least one of the characters must be alphabetic. Characters are restricted
to alphanumeric, ".", and ".".

NOTE: Microsoft Active Directory only supports Fully Qualified Domain Names (FQDN) of 64 bytes or fewer.

Default
<blank>

cfgDNSDomainNameFromDHCP (Read or Write)

Description
Specifies that management module DNS domain name must be assigned from the network DHCP server.

Legal Values

• 1 — True
• 0 — False

Default
0

This property is used only if cfgNicUseDhcp is set to 1 (true), or if both cfgIPv6Enable and cfgIPv6AutoConfig are set to 1 (true).
The management module can obtain its DNS domain name from either a DHCP or DHCPv6 server, if all of the following properties are set to 1 (true):

- cfgNicIPv4Enable
- cfgNicUseDhcp
- cfgIPv6Enable
- cfgIPv6AutoConfig
- cfgDNSDomainNameFromDHCP
- cfgDNSDomainName (Read or Write)

The network administrator must make sure that these DHCP servers are configured to provide the same DNS domain name to the management module, otherwise the domain name becomes unpredictable.

### cfgStorageModule

**Description**
This command is used only with the getconfig command.

**Synopsis**

```
Input
  - cfgStorageModuleStorageMode=<storage mode>
  - # cfgStorageModuleServiceTag=<service tag>
  - cfgStorageModuleAssetTag=
  - cfgConnectedSlots=<connected slots>
```

**Example**

```
- cfgStorageModuleStorageMode=2
- # cfgStorageModuleServiceTag=MX0000
- cfgStorageModuleAssetTag=
- cfgConnectedSlots=2,2,2,2,2,2,2,2
```

### cfgStorageModuleStorageMode

**Description**
Displays the storage module.

**Synopsis**

```
cfgStorageModuleStorageMode=<storage mode>
```

**Input**

```
cfgStorageModuleStorageMode=<storage mode>
```

**NOTE:**

- If the storage mode is 1, then cfgConnectedSlots will be list of all connected slots to that particular enclosure.
- If the storage mode is 2, then cfgConnectedSlots shows the assignment for each drive.

**Example**

```
cfgStorageModuleStorageMode=2
```
**cfgStorageModuleServiceTag**

**Description**
Displays the service tag.

**Synopsis**
cfgStorageModuleServiceTag=<service tag>

**Input**
cfgStorageModuleServiceTag=<service tag>

**Example**
cfgStorageModuleServiceTag=MX0000

**cfgStorageModuleAssetTag**

**Description**
Displays the asset tag.

**Synopsis**
cfgStorageModuleAssetTag=

**Input**
cfgStorageModuleAssetTag

**Example**
cfgStorageModuleAssetTag=xxxxxx

**cfgStorageModuleConnectedSlots**

**Description**
Displays the connected slots.

**Synopsis**
cfgConnectedSlots=<connected slots>

**Input**
cfgConnectedSlots=<connected slots>

**Example**
cfgConnectedSlots=2,2,2,2,2,2,2,2

**cfgUserAdmin**

**Description**
This group provides configuration information about the users who are allowed to access management module through the available remote interfaces.

Up to 64 instances of the user group are allowed. Each instance represents the configuration for an individual user.

**NOTE:** In the current management module firmware version, the objects cfgUserAdminEnable and cfgUserAdminPrivilege are interrelated; changing the value of one property causes the value of the other property to change. For example, if a user does not have login privilege, the user is disabled by default. When you enable the user by changing the value of the UserAdminEnable to 1, the right-most digit of the UserAdminPrivilege also becomes 1. On the other hand, if you change the right-most digit of the UserAdminPrivilege to 0, the value of the UserAdminEnable becomes 0.
Use this object with the `config` or `getconfig` subcommands. To use the command as follows: `-i <index group>`, supply an index group number.

To use this object property, you must have the Chassis Configuration Administrator privilege.

NOTE: You can configure a setting that does not have the hash sign (#) prefixed in the output. To modify a configurable object, use the `–o` option.

### cfgUserAdminPassword - Write Only

**Description**
The password for this user. User passwords are encrypted and cannot be seen or displayed after the property is written.

**Legal Values**
A string of up to 20 ASCII characters.

**Default**
********

### cfgRacTuning

This group is used to configure various iDRAC or OME - Modular configuration properties, such as valid ports and security port restrictions.

Use this object with the `config` or `getconfig` subcommands.

To use this object property for OME - Modular, you must have the Chassis Configuration Administrator privilege.

NOTE: You can configure a setting that does not have the hash sign (#) prefixed in the output. To modify a configurable object, use the `–o` option.

Use the `-m` option to apply this setting to OME - Modular.

### cfgRacTuneWebserverEnable (Read or Write)

**Description**
Enables or disables the web server. If this property is disabled then it is not accessible using client web browsers. This property has no effect on the Telnet/SSH or `racadm` interfaces.

**Legal Values**
- 1 (TRUE)
- 0 (FALSE)

**Default**
1

### cfgRacTuneServiceTag

**Description**
Displays the service tag.

**Synopsis**
```
cfgRacTuneServiceTag=<service tag>
```

**Input**
```
cfgRacTuneServicetag=<service tag>
```
Example

cfgRacTuneServiceTag=UY0007U