Dell EMC OpenManage Enterprise Modular Edition Version 1.00.10 for PowerEdge MX7000 Chassis

RACADM Command Line Reference Guide

DELL EMC

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

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 1. Details of RACADM command options

Option	Description
-r *<raclpAddr>*	Specifies the controller's remote IP address.
-u *<usrName>*	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.
-p *<password>*	Specifies the password that is used to authenticate the command transaction. If the **-p** option is used, the **-i** option is not allowed.
-S	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.
-i *<indexnumber>*	Specifies the index number for the indexed group, if applicable.
-g *<groupname>*	Specifies the group name, if applicable.
-o *objectname*	Specifies the object name, if applicable.

Option	Description
-m *objectname*	Specifies the module.

Table 2. Supported RACADM interfaces

Type	Local RACADM Address	SSH RACADM	Remote RACADM
OME-Modular	No	Yes	Yes

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

Displayable Characters

Displayable characters include the following set:

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

Other documents you may need

Table 3. List of documents

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

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RACADM sub command details

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

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)

- " (double quotation mark)
- ` (backward quotation mark)
- \ (backward slash)
- ~ (tilde)
- ; (semicolon)
- | (vertical bar)
- ((left parentheses)
-) (right parentheses)
- # (pound)
- ASCII code 32 (space)

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:
racadm getsysinfo [-d] [-c] [-4] [-6]
------------------------------------------------------------
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 FQDD 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

Address	HWtype	HWaddress	Flags Mask	Iface
192.168.0.120	ether	00:00:5e:00:01:01	C	pub
192.168.1.120	ether	90:b1:1c:f4:32:09	C	pub
192.168.0.121	ether	90:b1:1c:f4:34:f4	C	pub

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 help add`
- `racadm chassisgroup help view`
- `racadm chassisgroup help admit`
- `racadm chassisgroup help deny`

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

```
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:
  - `server`
  - `switch`
- `-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: FC IOMs (MXG610s) do not support colon, ":", in passwords.

  NOTE: The lshell does not support the special characters—'&', '|',';','>','<', '$(', '${', 'sudo', 'lsudo', 'lpath', and 'history'.

  NOTE: You can configure only the "root" user password for servers, 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

  ```
  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

  ```
  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

  ```
  racadm deploy -m server-3 -u root -p <password> -d
  ```
- Set password for switch-1

  ```
  racadm deploy -m switch-1 -u root -p <password>
  ```
- Set root password to "calvin" for all servers

  ```
  racadm deploy -a -u root -p calvin
  ```

- Set password for all switches

```
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
Extended Power Performance(EPP) Status            = 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]
<Name>               <Model>                        <Power
State>                  <Input Current>
<In
                                                      put Volts>
<Output Rated Power>
PS1                  PSU.Slot.1                     Failed (No Input
Power)        0 A                 0
V
                                                                    3000 W
PS2                  PSU.Slot.2
Absent                         N/A                 N/
A
                                                                    N/A
PS3                  PSU.Slot.3
Absent                         N/A                 N/
A
                                                                    N/A
PS4                  PSU.Slot.4
Online                         2.73 A
228
                                                        V             3000 W
PS5                  PSU.Slot.5
Absent                         N/A                 N/
A
                                                                    N/A
PS6                  PSU.Slot.6
```

```
Absent                          N/A                  N/
A
                                                                    N/A
```

```
[Server Module Power Allocation Table]
<Slot#>              <Server Name>        <Power State>
<Allocation>         <Priority>
<B
                                                  lade Type>
3                    SLOT-3               ON                   N/
A                  1
De
                                                  ll EMC PowerEdge MX5016s
7                    SLOT-7               OFF                  192
W                1
Po
                                                  werEdge MX740c
```

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
```

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`

```
<senType>       <Num>      <sensorName>    <status>        <reading>
<units>         <LC>       <UC>       <PWM>
FanSpeed        1          Fan-1           Not OK          N/A
rpm             N/A        N/A        0
FanSpeed        2          Fan-2           OK              17166
rpm             N/A        N/A        100
FanSpeed        3          Fan-3           OK              17250
rpm             N/A        N/A        100
FanSpeed        4          Fan-4           OK              17096
rpm             N/A        N/A        100
FanSpeed        5          Fan-5           OK              14513
rpm             N/A        N/A        100
FanSpeed        6          Fan-6           Not OK          N/A
rpm             N/A        N/A        0
FanSpeed        7          Fan-7           OK              14510
rpm             N/A        N/A        100
FanSpeed        8          Fan-8           OK              14479
rpm             N/A        N/A        100
FanSpeed        9          Fan-9           OK              14484
rpm             N/A        N/A        100


<senType>       <Num>      <sensorName>                    <status>
<reading>       <units>         <LC>       <UC>
Temp            1          Chassis Inlet Temperature      OK
27              Celsius         -7         47


<senType>       <Num>           <sensorName>    <status>        <health>
PWR             1               PS-1            Offline         Not OK
PWR             2               PS-2            Slot Empty      N/A
PWR             3               PS-3            Slot Empty      N/A
PWR             4               PS-4            Online          OK
PWR             5               PS-5            Slot Empty      N/A
PWR             6               PS-6            Slot Empty      N/A
```

- `racadm getsensorinfo -c`

```
Sensor Type: Fan
<Num>      <sensorName> <status>   <reading>  <LC>       <UC>
1          Fan-1        Not OK     N/A   rpm   N/A        N/A
2          Fan-2        OK         17174 rpm   N/A        N/A
3          Fan-3        OK         17238 rpm   N/A        N/A
4          Fan-4        OK         17081 rpm   N/A        N/A
5          Fan-5        OK         14499 rpm   N/A        N/A
6          Fan-6        Not OK     N/A   rpm   N/A        N/A
7          Fan-7        OK         14502 rpm   N/A        N/A
8          Fan-8        OK         14505 rpm   N/A        N/A
9          Fan-9        OK         14479 rpm   N/A        N/A
```

```
Sensor Type: Temp
<Num>      <sensorName>              <status>   <reading>  <LC>       <UC>
1          Chassis Inlet Temperature OK         27    C     -7         47


Sensor Type: Power
<Num>      <sensorName> <status>        <health>
1          PS-1         Offline         Not OK
2          PS-2         Slot Empty      N/A
3          PS-3         Slot Empty      N/A
4          PS-4         Online          OK
5          PS-5         Slot Empty      N/A
6          PS-6         Slot Empty      N/A
```

getsysinfo

Description Displays general RAC and system information.

Synopsis

```
racadm getsysinfo [-d] [-c] [-4] [-6]
```

Input

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

Example

- DisplaysChassis 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.

NOTE: 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.

Synopsis

```
racadm swinventory
```

Input

```
racadm swinventory
```

Example

To view the software inventory:

```
racadm swinventory
```

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
```

3

OME Modular property database group and object descriptions

Replace this text with your content.

Topics:

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`

To change the DNS domain name, run the following commands:

1 `racadm config -g cfglannetworking -o cfgDNSRegisterRac 0`

If **Register with DNS** is currently enabled.

2 `racadm config -g cfglannetworking -o cfgDNSDomainNameFromDHCP 0`

3 `racadm config -g cfglannetworking -o cfgDNSDomainName Spaceisg.com`

4 `racadm config -g cfglannetworking -o cfgDNSRegisterRac 1`

To return to the original state if step 1 is applied.

To change the preferred or alternate DNS name, run the following commands:

1 `racadm config -g cfglannetworking -o cfgDNSRegisterRac 0`

If **Register with DNS** is currently enabled.

2 `racadm config -g cfglannetworking -o cfgDNSServersFromDHCP 0`

3 `racadm config -g cfglannetworking -o cfgDNSServer1 100.69.112.5`

For **Alternate DNS Server name** use `cfgDNSServer2`.

4 `racadm config -g cfglannetworking -o cfgDNSRegisterRac 1`

To return to the original state if step 1 is applied.

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`