Chassis Management Controller Version 5.0 for Dell PowerEdge M1000e RACADM Command Line Reference Guide

Notes, cautions, and warnings

NOTE: A NOTE indicates important information that helps you make better use of your computer.

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

NOTE: In this version of RACADM, the Linux shell features such as ctrl+d, home, del, and end shortcut keys are not supported.

This document provides information about the RACADM subcommands, supported RACADM interfaces, and property database groups and object definitions for Dell Chassis System (CMC).

New in This Release

For CMC version 5.0, chassislog is a new command added.

This release of CMC supports:

- -c option is added for getmacaddress.
- cfgRacTuneEnhancedLog object added to cfgRacTuning group.
- cfgNetTuningNicRedundant object added to cfgNetTuning group.
- cfgChassisAllow110VACOperationTimestamp.
- cfgChassisMaxPowerConservationModeTimestamp object added to group.

Supported RACADM Interfaces

The RACADM command-line utility provides a scriptable interface that allows you to locally configure or remotely configure your CMC. 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 **support.dell.com**.

The RACADM utility supports the following interfaces:

- SSH or Telnet — Also known as Firmware RACADM. Firmware RACADM is accessible by logging in to CMC using SSH or Telnet. Similar to Remote RACADM, at the RACADM prompt, directly run the commands without the RACADM prefix.
- Remote — Supports running RACADM commands from a remote management station such as a laptop or desktop. To run Remote RACADM commands, install the DRAC Tools utility from the OpenManage software on the remote computer. To run Remote RACADM commands:

  – Formulate the command as a SSH or Telnet RACADM command.

  For more information about the options, see RACADM Subcommand Details. To download the local RACADM tool from **dell.com/support**, click **Servers, Storage & Networking** in the **General Support** section. Click **PowerEdge**, click the required PowerEdge system, and then click **Drivers & downloads**.

RACADM Syntax Usage

The following section describes the syntax usage for SSH or Telnet, and Remote RACADM.

SSH, Telnet, or Remote RACADM

```
racadm -r <cmcIPAddr> -u username -p password <subcommand>
```

```
racadm -r <cmcIPAddr> -u username -p password getconfig -g <group name> -o <object name>
```

```
racadm <subcommand>
```

Example

```
racadm getsysinfo
```

```
racadm -r 192.168.0 -u username -p xxx getsysinfo
```

```
racadm -r 192.168.0 -u username -p xxx getconfig -g cfgchassispower
```

SSH or Telnet RACADM

```
racadm getconfig -g <groupname> [-o <objectname>][-i <indexnumber>]
racadm <subcommand>
```

Example

```
racadm getconfig -g idracinfo
racadm getsysinfo
```

Remote RACADM

```
racadm -r <cmcIpAddr> -u <username> -p <password> <subcommand>
```

Example

```
racadm -r 192.168.0 -u root -p xxxx getsysinfo
Security Alert: Certificate is invalid - Certificate is not signed by Trusted Third Party
Continuing execution.
```

NOTE: The following command does not display a security error:

```
racadm -r 192.168.0 -u noble -p xxx getsysinfo --nocertwarn
```

RACADM Command Options

The following table lists the options for the RACADM command:

Option	Description
`-r <cmcIpAddr>`	Specifies the controller's IP address.
`-u <username>`	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 (interactive) is not allowed.
`-p <password>`	Specifies the password used to authenticate the command transaction. If the `-p` option is used, the `-i` option is not allowed.
`--nocertwarn`	Does not display certificate related warning message.
`-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.

Supported RACADM Subcommands

The following table provides the list of RACADM subcommands and their corresponding interface support. For more information about the RACADM subcommands including syntax and valid entries, see RACADM Subcommand Details.

Subcommand	CMC	
	Telnet/SSH/Serial	Remote RACADM
"?" and "? *<subcommand>*"	Yes	Yes
help and help subcommand	Yes	Yes
arp	Yes	Yes
chassisaction	Yes	Yes
chassislog	Yes	Yes
closessn	Yes	Yes
clrraclog	Yes	Yes
clrsel	Yes	Yes
cmcchangeover	Yes	Yes
config	Yes	Yes
connect	Yes	Yes
deploy	Yes	Yes
feature	Yes	Yes
featurecard	Yes	Yes
fwupdate	Yes	Yes
getactiveerrors	Yes	Yes
getarraycfg	Yes	Yes
getassettag	Yes	Yes
getchassisname	Yes	Yes
getconfig	Yes	Yes
getdcinfo	Yes	Yes
getfanreqinfo	Yes	Yes
getflexaddr	Yes	Yes
getioinfo	Yes	Yes
getkvminfo	Yes	Yes
getled	Yes	Yes
getmacaddress	Yes	Yes
getmodinfo	Yes	Yes
getniccfg	Yes	Yes
getpbinfo	Yes	Yes

Subcommand	CMC	
	Telnet/SSH/Serial	Remote RACADM
getpminfo	Yes	Yes
getraclog	Yes	Yes
getractime	Yes	Yes
getredundancymode	Yes	Yes
getsel	Yes	Yes
getsensorinfo	Yes	Yes
getslotname	Yes	Yes
getssninfo	Yes	Yes
getsvctag	Yes	Yes
getsysinfo	Yes	Yes
gettracelog	Yes	Yes
getversion	Yes	Yes
help and help subcommand	Yes	Yes
ifconfig	Yes	Yes
krbkeytabupload	No	Yes
netstat	Yes	Yes
ping	Yes	Yes
ping6	Yes	Yes
racdump	Yes	Yes
racreset	Yes	Yes
racresetcfg	Yes	Yes
remoteimage	Yes	Yes
serveraction	Yes	Yes
setarraycfg	Yes	Yes
setassettag	Yes	Yes
setchassisname	Yes	Yes
setflexaddr	Yes	Yes
setled	Yes	Yes
setniccfg	Yes	Yes
setractime	Yes	Yes
setslotname	Yes	Yes
setsysinfo	Yes	Yes
sshpkauth	Yes	Yes
sslcertdownload	No	Yes
sslcertupload	No	Yes

Subcommand	CMC	
	Telnet/SSH/Serial	Remote RACADM
sslcertview	Yes	Yes
sslcsrgen	Yes	Yes
sslresetcfg	Yes	Yes
testemail	Yes	Yes
testfeature	Yes	Yes
testtrap	Yes	Yes
traceroute	Yes	Yes
traceroute6	Yes	Yes

Other Documents You May Need

In addition to this guide, you can access the following guides available on the Dell Support website at **www.dell.com/esmmanuals**. To access the documents, click the appropriate product link.

- The *Chassis Management Controller User's Guide* provides information about configuring and using CMC to remotely manage and monitor your system and its shared resources through a network.
- The *Chassis Management Controller Online Help* provides information about using the CMC Web interface.
- The *Chassis System (CMC) Secure Digital (SD) Card Technical Specification* provides minimum BIOS and firmware version, installation and usage information.
- Documentation specific to your third-party management console application.
- The *Dell OpenManage Server Administrator's User's Guide* provides information about installing and using Dell OpenManage Server Administrator.
- The *Dell Update Packages User's Guide* provides information about obtaining and using Dell Update Packages as part of your system update strategy.
- The *Glossary* provides information about the terms used in this document.

The following system documents are also available to provide more information about the system in which iDRAC is installed:

- The *Rack Installation Guide* and *Rack Installation Instructions* included with your rack solution describe how to install your system into a rack.
- The *Hardware Owner's Manual* provides information about system features and describes how to troubleshoot the system and install or replace system components.
- Documentation for any components you purchased separately provides information to configure and install the options.
- Release notes or readme files may be included to provide last-minute updates to the system or documentation or advanced technical reference material intended for experienced users or technicians.
- For more information about IOM network settings, see the *Dell PowerConnect M6220 Switch Important Information* document and the *Dell PowerConnect 6220 Series Port Aggregator White Paper*.

Updates are sometimes included with the system to describe changes to the system, software, and/or documentation. Always read the updates first because they often supersede information in other documents.

See the *Safety and Regulatory* information that is shipped with your system.

NOTE: Warranty information may be included within this document or as a separate document.

Accessing Documents From Dell Support Site

You can access the required documents in one of the following ways:

- Using the following links:
  - For all Enterprise Systems Management documents — **dell.com/softwaresecuritymanuals**
  - For OpenManage documents — **dell.com/openmanagemanuals**
  - For Remote Enterprise Systems Management documents — **dell.com/esmmanuals**
  - For OpenManage Connections Enterprise Systems Management documents — **dell.com/OMConnectionsEnterpriseSystemsManagement**
  - For Serviceability Tools documents — **dell.com/serviceabilitytools**
  - For Client Systems Management documents — **dell.com/clientsystemsmanagement**
  - For OpenManage Connections Client Systems Management documents — **dell.com/dellclientcommandsuitemanuals**
- From the Dell Support site:
  a. Go to **dell.com/support/home**.
  b. Under **Select a product** section, click **Software & Security**.
  c. In the **Software & Security** group box, click the required link from the following:
     - **Enterprise Systems Management**
     - **Remote Enterprise Systems Management**
     - **Serviceability Tools**
     - **Client Systems Management**
     - **Connections Client Systems Management**
  d. To view a document, click the required product version.
- Using search engines:
  - Type the name and version of the document in the search box.

Contacting Dell

NOTE: If you do not have an active Internet connection, you can find contact information on your purchase invoice, packing slip, bill, or Dell product catalog.

Dell provides several online and telephone-based support and service options. Availability varies by country and product, and some services may not be available in your area. To contact Dell for sales, technical support, or customer service issues:

1. Go to **dell.com/support**.
2. Select your support category.
3. Verify your country or region in the **Choose a Country/Region** drop-down list at the bottom of the page.
4. Select the appropriate service or support link based on your need.

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RACADM Subcommand Details

This section provides detailed description of the RACADM subcommands including the syntax and valid entries.

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 single quotation marks or double quotation marks:

- $ (dollar sign)
- " (double quotation mark)
- ' (single quotation mark)
- ` (backward quotation mark)
- \ (backward slash)
- ~ (tilde)
- | (vertical bar)
- ((left parentheses)
-) (right parentheses)
- & (ampersand)
- > (greater than)
- < (less than)
- # (pound)
- ASCII code 32 (space)

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

For using double quotation marks:

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

- $ (dollar sign)
- " (double quotation mark)
- ` (back quotation mark)

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 is not used even with a backward slash escaped.

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

racadm ? and ? subcommand

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

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

To use this subcommand, you must have the CMC Login User privilege.

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

Synopsis

```
racadm ?
```

```
racadm ? <subcommand>
```

Input N/A

Output N/A

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 KVM powercycle
 chassislog       -- display chassis log management operations
 closessn         -- close a session
 clrraclog        -- clear the CMC log
 clrsel           -- clear the System Event Log (SEL)
 cmcchangeover    -- changes the redundant state of the CMC from active to standby and vice
versa
 config           -- modify CMC configuration properties
 connect          -- connect to switch or blade serial console
 deploy           -- deploy blade or IOM by specifying required properties
 feature          -- display features active on the chassis / feature deactivation
 featurecard      -- feature card status and list the available features
 fwupdate         -- update the firmware on a CMC, server, IOM inf, or KVM
 getactiveerrors -- display CMC active errors
 getassettag      -- display asset tag
 getchassisname   -- get the chassisname
 getconfig        -- display CMC configuration properties
 getdcinfo        -- display general I/O module and DC configuration information
 getfanreqinfo    -- display fan request information for Servers and Switches
 getflexaddr      -- display Flexaddress enablement status for all slots and fabrics
 getioinfo        -- display general IO information and stack information
 getkvminfo       -- display the KVM module information
 getled           -- display the LED settings on a module
 getmacaddress    -- get MAC/WWN addresses
 getmodinfo       -- get module configuration and status information
 getniccfg        -- display network settings for modules
 getpbinfo        -- get power budget status information
 getpminfo        -- get power management status information
 getraclog        -- display the CMC log
 getractime       -- display the current CMC time
 getredundancymode -- gets the redundancy mode of the CMC
 getsel           -- display records from the System Event Log (SEL)
 getsensorinfo    -- display system sensors
 getslotname      -- gets the name of the slot in the chassis
```

```
getssninfo      -- display session information
getsvctag       -- display service tag information
getsysinfo      -- display general CMC and system information
gettracelog     -- display the CMC diagnostic trace log
getversion      -- display version information for modules
getarraycfg     -- display's storage array properties
ifconfig        -- display network interface information
krbkeytabupload -- upload an Kerberos Keytab to the CMC
netstat         -- display routing table and network statistics
ping            -- send ICMP echo packets on the network
ping6           -- send ICMP echo packets on the network
racdump         -- display CMC diagnostic information
racreset        -- perform a CMC or RAC reset operation
racresetcfg     -- restore the CMC configuration to factory defaults
remoteimage     -- connect, disconnect or deploy a media file on a remote server
serveraction    -- perform system power management operations
setassettag     -- set the asset tag for the specified module
setchassisname  -- sets the name of the chassis
setflexaddr     -- enable/disable the Flexaddress feature on a per fabric, per slot basis
setled          -- set state of the LEDs on a module
setniccfg       -- modify network configuration properties
setractime      -- set the time on the CMC
setslotname     -- sets the name of the slot in the chassis
setsysinfo      -- set the chassis name and chassis location
setarraycfg     -- configure's storage array properties
sshpkauth       -- manage PK Authentication keys and accounts
sslcertdownload -- download an SSL certificate from the CMC
sslcertupload   -- upload an SSL certificate to the CMC
sslcertview     -- display a CA/server certificate in the CMC
sslcsrgen       -- generate a certificate CSR from the CMC
sslresetcfg     -- generate a new self-signed certificate
testemail       -- test CMC e-mail notifications
testfeature     -- test CMC feature x
testtrap        -- test CMC SNMP trap notifications
traceroute      -- determine the route of a packet
traceroute6     -- determine the route of a packet
```

Example for RACADM? <subcommand>

```
racadm ? getsysinfo
```

```
getsysinfo -- display general CMC and system information
Usage:
racadm getsysinfo [-d] [-c] [-A] [-4] [-6]
------------------------------------------------------------
Valid Options:
-d : show CMC information
-c : show chassis information
-A : do not show headers or labels
-4 : show CMC IPv4 information
-6 : show CMC IPv6 information
```

help and help subcommand

Description Lists all the subcommands available for use with **RACADM** and provides a short description about each subcommand. You may also type a subcommand, group, object or Fully Qualified Descriptor (FQDD) name after `help`.

Synopsis

- `racadm help`
- `racadm help <subcommand>`
- `racadm help —g <groupname>`
- `racadm help -g <groupname> —o <objectname>`

Input

- `<subcommand>` — specifies the subcommand for which you need the help information.

- `<device name>` — specifies the device name such as iDRAC, BIOS, NIC, LifecycleController, FC, system, or Storage.
- `<group>` — specifies the group name supported by the corresponding device.
- `<object>` — specifies the object for the entered group.

Output

- The `help` command displays a complete list of subcommands.
- The `racadm help <subcommand>` command displays information for the specified subcommand only.
- The `racadm help –g <groupname>` command displays information for the specified group.
- The `racadm help –o <objectname>` command displays information for the specified object.
- The `racadm help <device name> <Group>` command displays information for the specified group.
- The `racadm help <device name> <Object>` command displays information for the specified object.
- The `racadm help <device name> <Group> <Object>` command displays information for the specified object.

arp

Description

Displays the contents of the Address Resolution Protocol (ARP) table. ARP table entries cannot be added or deleted.

To use this subcommand, you must have Execute Diagnostic Commands.

Synopsis

```
racadm arp
```

Input

N/A

Example

```
racadm arp
```

Output

Address	HW Type	HW Address	Mask	Device
192.168.1.1	Ether	00:0d:65:f3:7c:bf	C	eth0

chassisaction

Description

Executes a power action on the chassis, KVM or a switch.

To use this subcommand, you must have the Chassis Control Administrator privilege.

Synopsis

```
racadm chassisaction [-m &lt;module&gt;] &lt;action&gt;
```

Input

- `-m <module>` — Module on which you want to carry out the action. Values are:
- `–chassis` — is the default value if `-m` is not specified.

  `–switch-<n>` where n=1–6

  `–kvm`
- `<action>` — Action that you want to execute on the specified module. Values are:
- `–powerdown` — (Chassis only) Powers down the chassis.

  `–powerup` — (Chassis only) Powers up the chassis.

  `–powercycle` — Power cycles the module.

NOTE: If a server takes longer duration to turn off gracefully after the chassis power cycle is initiated, CMC stops functioning indicating that graceful shutdown of the server was unsuccessful. In this case, you must ungracefully turn off the system or try to gracefully turn off the system again.

—`nongraceshutdown` — (Chassis only) Turns off the chassis ungracefully.

—`reset` — Performs a hard reset of the module.

When `<module>` = kvm or switch, `<action>` must be powercycle or reset.

Output None

Example

- Perform a reset of switch-3:
  ```
  racadm chassisaction -m switch-3 reset
  ```
  Module power operation successful.
- Perform a non graceful shutdown of the chassis:
  ```
  racadm chassisaction -m chassis nongraceshutdown
  ```

chassislog

Description Displays chassis log and management operations.

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

Input chassislog command types:

- view — View chassis log
  - To View chassis log
    ```
    racadm chassislog view
    ```
- export — Export to local disk and network share
  - Export chassis log to local disk
    ```
    racadm -r 192.168.0.32 chassislog export -f filename.log
    ```
  - Export chassis log to network share CIFS
    ```
    racadm -r 192.168.0.32 chassislog export -f //192.168.0.120/data/
    filename.log
    ```
  - Export chassis log to network share NFS
    ```
    racadm -r 192.168.0.32 chassislog export -f 192.168.0.120/data/
    filename.log
    ```
- clear — Clear chassis log
  - To clear chassis log
    ```
    racadm chassislog clear
    ```

NOTE: To clear the chassis log, you must have the Clear Logs Administrator privilege.

NOTE: `racadm chassislog export -f <filename>` is supported only for remote interface(s).

closessn

Description Closes a communication session on the device. Use **getssninfo** to view a list of sessions that can be closed using this command.

To run this subcommand, you must have the Administrator permission

NOTE: This subcommand ends all the sessions other than the current session.

Synopsis

- `racadm closessn –i <session_ID>`
- `racadm closessn -a`
- `racadm closessn -u <username>`

Input

- `–i <session_ID>` — The session ID of the session to close, which can be retrieved using RACADM `getssninfo` subcommand.
  Session running this command cannot be closed.
- `–a` — Closes all sessions.
- `–u <username>` — Closes all sessions for a particular user name.
- For Remote RACADM, use either the `–u` option or the `–i` option.

Output

Successful or error message is displayed.

Example

- Closes the session 1234.
  `racadm closessn -i 1234`
- Closes all the sessions other then the active session for root user.
  `racadm closessn –u root`
- Closes all the sessions.
  `racadm closessn –a`

clrraclog

Description

Deletes the CMC log.

Synopsis

`racadm clrraclog`

Input

N/A

clrsel

Description

Removes all the existing records from the System Event Log (SEL).

To use this subcommand, you must have **Clear Logs** permission.

Synopsis

`racadm clrsel [-m <module>]`

Input

`-m <module>` must be one of the following values:

- `server-<n>` — where n=1 to 16
- `server-<nx>` — where n=1 to 8; x = a, b, c, d (lower case)

Example

- `racadm clrsel`
  The SEL was cleared successfully
- `racadm clrsel -m server-1`
  Clear SEL log on server 1

cmcchangeover

Description

Changes the state of the CMC from active to standby, or from standby to active, in a redundant CMC configuration. This subcommand is useful for remote debugging or testing purposes

To use this subcommand, you must have the Administrator privilege.

NOTE: This command is applicable only in redundant CMC environments. For more information, see the "Understanding the Redundant CMC Environment" section of the *Dell Chassis System User Guide.*

Synopsis

```
racadm cmcchangeover
```

Input

N/A

Output

```
CMC failover initiated successfully.
```

Example

```
racadm cmcchangeover
```

config

Description

Allows you to set iDRAC configuration parameters individually or to batch them as part of a configuration file and then modify CMC configuration properties. If the data is different, the iDRAC object is written with a new value.

NOTE: This subcommand will be deprecated in the later versions. For information about configurations, see the `set` subcommand.

Synopsis

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

NOTE:

- The configuration file retrieved using remote RACADM is not interoperable. For the config `racadm -r 192.168.0 -u root -p xxx config -f c:\config.txt` command, use the configuration file retrieved from the same interface. For example, for the config `racadm -r 192.168.0 -u root -p xxx config -f c:\config.txt` , use the file generated from getconfig command `racadm -r 192.168.0 -u root -p xxx getconfig -f c:\config.txt`.
- -f is only applicable for remote RACADM.

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

Input

- `-f` — The `-f <filename>` option causes **config** to read the contents of the file specified by `<filename>` and configure iDRAC or CMC. The file must contain data in the format specified in the section Parsing Rules in the *CMC User's Guide* available at **www.dell.com/esmmanuals**.

  NOTE: The `-f` option is not supported for the Serial or Telnet or SSH console.
- `-continue` — This option is used with `-f` option only. If configuration through file is unsuccessful for a group, then configuration continues with the next group in the file. If this option is not used, then configuration stops when it is unsuccessful for a particular group. After the unsuccessful group, the rest of the groups are not configured.
- `-p` — This option must be used with the `-f` option. It directs **config** to delete the password entries contained in the config file `-f <filename>` after the configuration is complete.

  To apply the password, you must remove the preceding Read-Only marker '#' in the config file before executing the `config -f` command.
- `-g` — The `-g <groupName>`, or **group** option, must be used with the `-o` option. The `<group>` specifies the group containing the object that is to be set.

- `-o` — The `-o <objectName>`, or **object** option, must be used with the `-g` option. This option specifies the object name that is written with the string
- `<value>` — Value to set to configuration object.
- `-i` — The `-i <index>`, or **index** option, is valid only for indexed groups and can be used to specify a unique group (used with -g and -o). The `<index>` is a decimal integer from 1 through n, where n can vary from 1 to maximum number of indexes a particular group supports. If `-i <index>` is not specified, a value of 1 is assumed for groups, which are tables that have multiple entries. The index is specified by the index value, not a named value.

  'nx' is allowed for servers.
- `-m` — Module must be one of the following values:
  - `server-<n>` — where n = 1–16
  - `server-<nx>` — where n = 1–8; x = a to d (lower case)

NOTE: Only available for cfgRemoteHosts, cfgRacTuning, cfgSerial, cfgSessionManagement, cfgLanNetworking or cfgIPv6LanNetworking.

Output

This subcommand generates error output for any of the following reasons:

- Invalid syntax, group name, object name, index or other invalid database members.
- If the RACADM command-line interface is unsuccessful.

Examples

- To set the **cfgNicIpAddress** configuration parameter (object) to the value 192.168.0. This IP address object is contained in the group **cfgLanNetworking**.

```
racadm config -g cfgLanNetworking -o cfgNicIpAddress 192.168.0
```

- To configure or re-configure CMC:

```
racadm -r <cmcIpAddr> -u <username> -p <xxx> config -f mycmc.cfg
```

The **mycmc.cfg** file may be created from the **getconfig** command. This file may also be edited manually using the parsing rules.

NOTE: The mycmc.cfg file does not contain passwords. To include passwords in the file, you must enter them manually.

- To configure the single property of a group:

```
racadm config -g cfgSerial -o cfgSerialBaudRate
```

- To modify a user password:

```
racadm config -g cfgUserAdmin -o cfgUserAdminPassword -i 3 <newpassword>
```

- To configure the single property of a group for a particular server:

```
racadm config -g cfgSessionManagement -o cfgSsnMgtWebServerTimeout
newvalue -m server-n
```

- To configure the remote Syslog property for a particular server:

```
racadm config -g cfgRemoteHosts -o cfgRhostsSyslogEnable 1 -m server-n
```

- To configure the remote Syslog property for all servers:

```
racadm config -g cfgRemoteHosts -o cfgRhostsSyslogEnable 1 -m server-all
```

- Configures the Enhanced Cooling Mode property for fans.

```
racadm config -g cfgThermal -o cfgThermalEnhancedCoolingMode 1
```

connect

Description

Connects to the switch or blade server serial console.

NOTE: This subcommand is only supported on the firmware interface(s).

Synopsis

- `racadm connect [-b] –m <module>`

Input

`-b` — Connects to the switch or console using the binary mode. `-b` is an optional; a server or a switch must be present.

NOTE: If you use the `-b` option, reset the CMC to end the connect operation.

`-m <module>` — Must be one of the following values:

- `server –<n>` — where n=1–16
- `server –<nx>` — where n=1–8; x = a, b, c, d (lower case)
- `switch –<n>` — where n = 1 to 6 or <a1 | a2 | b1 | b2 | c1 | c2>

Example

- Connect to I/O Module 1 serial console:

```
racadm connect -m switch-1
```

- Connect to server 1 serial console:

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

deploy

Description

Deploys blade server or IOM by specifying the required properties.

To use this subcommand, you must have the Server Administrator privilege.

NOTE: Use setniccfg to configure static IP address, subnet mask, and gateway, and DHCP, speed and duplex properties.

Synopsis

- ```
  racadm deploy -m server-<n> -u root -p <password> -s <ipaddress> <subnet>
  <gateway> -b <device> -o no | yes
  ```
- ```
  racadm deploy -m server-<n> -u root -p <password>-s  -6 <ipv6Address>
  <prefixlen>  <gateway> -b <device>  -o no | yes
  ```

  where `<prefixlen>` must be a number between 0 and 128.
- ```
  racadm deploy -m server-<n>  -u root -p <password> -d [-6]
  ```
- ```
  racadm deploy -m switch-<n> -u root -p <password>
  ```
- ```
  racadm deploy -m switch-<n> -v  SNMPv2 <snmpCommunityString> ro
  ```
- ```
  racadm deploy -a [server/switch] -u root -p <password>
  ```
- ```
  racadm deploy -q [-n <numofblades>]
  ```

Input

- `–b <device>` — Specifies the first boot device must be used with `-o`. Use with `-m <module>` to specify for an individual server, or with an `-a` for all servers.

  Legal values are: `None`, `PXE`, `HDD`, `CD-DVD`, `vFDD`, `vCD-DVD`, `iSCSI`, `SD`, `FDD`, `RFS`.
- `-o no/yes` — Indicates if the server must start from the device once. Use this option with `-b` option.

  Use with `-m <module>` to specify for an individual server, or with `-a` for all servers.
- `-a` — server/switch. Applies options to all modules present in the chassis of the given module type. Specify the value as server or switch. Default value is `server`. Switches must support Ethernet Management.
- `-u <username>` — Indicates that the `<password>` is supplied for the root user on the server or switch. Root is a constant parameter, the only value that is valid with the `–u` option.
- `–m <module>` — Specifies the server or switch you want to configure.

  Legal values:
  - `server-<n>`, where `n`=1–16
  - `server-<nx>`, where `n`=1– 8; `x` = a,b,c,d (lower case)
  - `switch-<n>`, where `n`=1– 6
- `-p <password>` — Specifies the password for the root user on the server or switch. For switches, valid passwords are 6–32 ASCII characters in length, ranging in value 32–125 (decimal). For servers, valid passwords are 1–20 ASCII characters in length, ranging in value 32–126 (decimal).
  ```

- `-s <ipaddress> <subnet> <gateway>` — Sets the IP address, subnet mask, and gateway for the specified server.
  - `ipaddress` — A string representing a valid IP address. For example, 192.168.0.20.
  - `subnet` — A string representing a valid subnet mask. For example, 255.255.255.0.
  - `gateway` — A string representing a valid gateway address. For example, 192.168.0.1.
- `-d` — Enables DHCP for the specified server.

  The `-s` and `-d` options cannot be used together in the same command.
- `-6` — Enables IPv6 auto configuration (when used with `-d`). Sets static IPv6 addresses (when used with `-s`).
- `-v SNMPv2 <snmpCommunityString> ro` — Specifies the SNMP community string for switches. Valid community strings are 1–20 characters in length, with valid ASCII characters in the range [32–125] (decimal). Protocol version set to SNMPv2. Permission on community string is read-only.
- `-q` — Displays or modifies the quick deploy parameters.
- `-n <numofblades>` — Specifies the number of reserved IP addresses for quick deploy. The allowed values are: 8, 16, and 32.

  NOTE: The `-q` option must be specified with the `-n` option.

Output None

Example

- Set root password, configure static IPV4 address, set first boot device to HDD, and enable boot once 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 -b HDD -o yes
```

- Set root password, configure static IPV6 address, set first boot device to HDD, and enable boot once for server-1.

```
racadm deploy -m server-1 -u root -p <password> -s -6 1 2001:DB8::2 64
2001:DB8::1 -b HDD -o yes
```

- Set root password and enable DHCP for server-3.

```
racadm deploy -m server-3 -u root -p <passpwrd> -d
```

- Set user name and password for switch-2.

```
racadm deploy -m switch-2 -u <username> -p <password>
```

- Set SNMP community string for switch-2.

```
racadm deploy -m switch-2 -v SNMPv2 DemoCommunityString ro
```

- Set root password to **Calvin** for all servers.

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

- Set user name and password for all switches.

```
racadm deploy -a switch -u <username> -p <password>
```

- View the quick deploy parameters.

```
racadm deploy -q
```

- Modify the number of reserved IP addresses for quick deploy.

```
racadm deploy -q -n 8
```

feature

Description Displays all active chassis features. The information displayed includes feature name, date activated and the serial number of the SD card used to activate the feature.

Dell Feature Cards may contain more than a feature. After any feature included on a Dell Feature Card is activated on a chassis, any other features that may be included on that Dell Feature Card cannot be activated on a different chassis.

NOTE: To use this subcommand to deactivate FlexAddress, you must have the Chassis Configuration Administrator privilege. A user with login privileges can view status only.

NOTE: To deactivate FlexAddress features, the chassis must be turned off.

Synopsis

- `racadm feature -s`
- `racadm feature -d -c <featurename>`
- `racadm feature -r -c ExtendedStorage`

Input

`-s`

–Displays the status of active features.

`-d`

–Deactivates feature specified in `-c` option.

NOTE: When the FlexAddress and FlexAddressPlus feature are active, deactivating one of them results in deactivation of the other feature also.

`-r`

—Reformats damaged or unformatted extended storage media.

CAUTION: Using the -r switch deactivates the extended storage feature, if active; reformats the SD card in the active CMC card slot; and may Restart the active CMC.

`-c`

— `<featurename>` — must be one of the following:

- `flexAddress`
- `flexAddressPlus`
- `ExtendedStorage (with -d, or -r)`

NOTE: The —a option is not supported for CMC 5.0.

Example

- Display the current status of all chassis features:
  `racadm feature -s`
- Deactivate the FlexAddressPlus feature on the chassis:
  `racadm feature -d -c FlexAddressPlus`

featurecard

Description

Verifies proper SD card installation and displays the SD card status.

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

Synopsis

`racadm featurecard -s`

Input

`-s` — Lists active SD card features and SD card status.

Output

- `No feature card inserted` — **Action**: To verify that the SD card was properly inserted, check the CMC. In a redundant CMC configuration, make sure the CMC with the SD feature card installed is the active CMC and not the standby CMC.
- `The feature card inserted is valid and contains the following feature(s) FlexAddress: The feature card is bound to this chassis` — **Action**: No action required.
- `No features active on the chassis` — **Action**: Install the SD card into the CMC.
- `The feature card inserted is valid and contains the following feature(s) FlexAddress: The feature card is bound to another chassis, svctag = ABC1234, SD card SN = 01122334455`

  Action: Remove the SD card; locate and install the SD card for the current chassis.

- `The feature card inserted is valid and contains the following feature(s) FlexAddress: The feature card is not bound to any chassis`

  Action: The feature card can be moved to another chassis, or can be reactivated on the current chassis. To reactivate on the current chassis, enter `racadm racreset` until the CMC module with the feature card installed becomes active.

Example

```
$ racadm featurecard -s
```

```
The feature card inserted is valid, serial number TEST01234567890123456789
```

```
The feature card contains the following feature(s):
FlexAddress: The feature is bound to this chassis
FlexAddressPlus: The feature is bound to this chassis
ExtendedStorage: The feature is bound to this chassis
```

fwupdate

Description

Allows you to update the firmware on the KVM, active CMC, standby CMC, iDRAC or an IOM infrastructure device. You can:

- Check the firmware update process status.
- Update CMC from FTP or TFTP server by providing an IP address and optional path.
- Update CMC from the local file system using Remote RACADM.
- There can only be a single update operation in progress at any time. In addition, the **fwupdate** subcommand may only update one or more devices of a single kind at a time.

NOTE: CMC firmware update is supported only for the firmware versions 3.10, 3.20, 3.21, 4.0, 4.10, 4.11, 4.30, 4.31, 4.45, and 4.5. For any version other than these, first update to any of these versions, and then update to the required version.

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

NOTE: The fwupdate command is not supported for iDRAC7 or later. Use the CMC GUI to perform the operation.

NOTE:

- Running the **fwupdate** subcommand to update the firmware on the active CMC resets itself and all the network connections are dropped. During update of all other modules, including the standby CMC, the active CMC continues to run normally without resetting.
- In a chassis supported by DC PSUs, an error message is displayed if you attempt to update the firmware with a version without DC PSU support.
- The **fwupdate** subcommand generates an error when used on the extension slot of a multi-slot server.
- While Lifecycle Controller is running for racadam commands, you cannot perform other operations which needs Lifecycle Controller Partition. If the Lifecycle Controller Partition is unreleased (because of improper closure of racadm command in the partition), then you must wait 20-35 minutes to clear the Lifecycle Controller Partition

Signed CMC Firmware Image

- For 13th generation and later, CMC firmware includes a signature which is verified by CMC before update to ensure the authenticity of the uploaded firmware. The firmware update process is successful only if the firmware image is authenticated by CMC to be a valid image from the service provider and has not been altered. The firmware update process is stopped if CMC cannot verify the signature of the uploaded firmware image.

- Upload firmware image from TFTP server and start firmware update.

Synopsis

For SSH or Telnet or Serial:

```
racadm fwupdate -g -u -a <tftp_server_ip_address_or_FQDN> -d <path> [-m
<module>]
```

```
racadm fwupdate -f <ftp_server_ip_address_or_FQDN> <username> <password> -d
<path> [-m <module>]
```

```
racadm fwupdate -u -m iominf-<n>
```

```
racadm fwupdate -s [-m <module>]
```

```
racadm fwupdate -c [-m <module>]
```

For Remote RACADM:

```
racadm fwupdate -p -u -d <path> [-m <module>]
```

```
racadm fwupdate -g -u -a 192.168.0 -d firmimg.cmc -m cmc-active
```

When using `FTP`, if you provide the full path to the image file on the `CLI`, then the CMC uses that path to locate that file on the host. If full path is not provided and the host system is running Linux or another variant of UNIX , then CMC searches the home directory of the specified user for the file. If the host system is running Windows, then a default folder, such as C:\ftproot is searched.

NOTE: When attempting to run firmware update task, if the firmware image path length is greater than 256 characters, remote RACADM client exits with the error message "`ERROR: Specified path is too long`".

NOTE: When attempting to run firmware update task using racadm fwupdate command, if the firmware image path length is greater than 256 characters. Remote RACADM client exits with the error message "`ERROR: Specified path is too long`".

Input

- `–u` — Performs the firmware update operation (used with -p and -g).
- `–s` — Displays the status of the firmware update. Use this option by itself. Lists active SD card features and SD card status.

NOTE: Use `–m` to display the status of the module update. Omit `–m` to display the status of the active CMC update.

NOTE: The value `all` is used only to obtain the status of all targets to update.

- `-g` — Downloads the firmware update using the TFTP server.
- `-a` — The IP Address option specifies the TFTP server IP address, used with `-g` option.
  Specifies the TFTP server IP address or FQDN used for the firmware image (used with `-g`).
- `-d` — The `-d`, or directory option specifies the directory on the TFTP server or on CMC's host server, where the firmware update file resides.

  Specifies the source path where the firmware image resides.

  `Default`: Designated TFTP default directory on that host for the file if `-g` option is absent. If `-g` is used, it defaults to a directory configured on the TFTP server.
- `-p` — Stops the current firmware update of a module.

  NOTE: This option is only supported on the remote interface(s).
- `-m <module>` — Specifies the module or device to be updated. `<module>` is one of the following values:
  - `cmc-active` — default state if –m is not specified.
  - `cmc-standby`

- kvm
- server-<n> — where n=1–16
- server-<nx> — where n=1–8; x = a, b, c, d (lower case)
- server-<g> <generation> — where generation = iDRAC or iDRAC6 only.
- iominf-<n> — where n = 1–6

NOTE: Multiple modules can be specified except iominf-<n>, for example, –m <module 1> –m <module 2> and so on.

- -f— Specifies the FTP server IP address or FQDN, username, and password used for firmware image. Applies FTP download process for firmware update.

CMC version 3.00 accepts IPv4, IPv6 or fully qualified domain names (FQDN) for both FTP and TFTP servers.

NOTE: You can specify the cmc-active and cmc-standby modules at the same time along with one or more server-n modules. This option enables the devices to be updated together.

NOTE: Verify that the update applied to servers for a particular generation has been validated for all impacted server models.

Output

Displays a message indicating the operation that is being performed.

Example

- Upload the firmware image from the TFTP server and start the firmware update.
  ```
  racadm fwupdate -g -u -a 192.168.0 -d firmimg.cmc -m cmc-active
  ```
  TFTP firmware update has been initiated. This update process may take several minutes to complete.
- Upload the firmware image from the FTP server and start the firmware update.
  ```
  racadm fwupdate -f 192.168.0.100 fred xxx -d firmimg.cmc -m cmc-active
  ```
- Upload a firmware image from the client and start firmware update.
  ```
  racadm fwupdate -p -u -d firmimg.cmc
  ```
- Start IOM infrastructure firmware update.
  ```
  racadm fwupdate -u -m iominf-1
  ```
- Update firmware on both the CMCs.
  ```
  racadm fwupdate -g -u -a 192.168.0 -d firmimg.cmc -m cmc-active -m cmc-standby
  ```
- Update firmware on multiple servers.
  ```
  racadm fwupdate -g -u -a 192.168.0 -d firmimg.imc -m server-1 -m server-2 -m server-3
  ```
- Update firmware on servers of iDRAC generation.
  ```
  racadm fwupdate -g -u -a 192.168.0 -d firmimg.imc -m server-iDRAC
  ```
- Update firmware on multiple IOM infrastructure devices.
  ```
  racadm fwupdate -u -m iominf-4 -m iominf-5 -m iominf-6
  ```
- Query the status of all firmware targets to be updated.
  ```
  racadm fwupdate -s -m all
  ```
- Query the current status of the firmware update process for a particular module.
  ```
  racadm fwupdate -s -m <module>
  ```
- Download firmware update file from a specified location on the TFTP server at a specific IP address.
  ```
  racadm fwupdate -g -u -a 192.168.0 -d <path>
  ```
  After the image file is downloaded from the TFTP server, the update process begins. When completed, CMC is reset.
- Read the status of the firmware update.
  ```
  racadm fwupdate -s
  ```
- Cancel a firmware update in progress.
  ```
  racadm fwupdate –c
  ```

NOTE: Firmware update from local RACADM (using `-p -u -d` options) is not supported on linux OS.

NOTE: These commands specifically apply to an active-CMC update.

Signed CMC Firmware Image:

- To get the firmware update status:

  ```
  racadm fwupdate -s -m cmc-active
  ```

  Invalid firmware: The uploaded firmware image does not contain a verification signature.

The following table describes the firmware update method supported for each interface.

FW Update Method	CMC
Local RACADM	No
Local RACADM-TFTP	No
Local RACADM-FTP	No
Remote RACADM	Yes
Remote RACADM-TFTP	Yes
Remote RACADM-FTP	Yes
Firmware RACADM-TFTP	Yes
Firmware RACADM-FTP	Yes

getactiveerrors

Description Displays CMC active errors.

Synopsis

- `racadm getactiveerrors`
- `racadm getactiveerrors [-s <severity>] [-m <module>]`

Input The command `racadm getactiveerrors` displays the critical, warning, and informational messages for all the modules.The values are:

`-s <severity>` — Specifies the severity type message displayed. The command `racadm getactiveerrors` displays the selected type of messages for all the modules. When used with `-m` option, only selected message type for that module is displayed. The values for `-s <severity>` are:

- `critical`
- `warning`
- `info`

`-m <module>` — Specifies the module for which the messages such as critical, noncritical (warning), and informational are displayed. The command `racadm getactiveerrors` displays critical, noncritical (warning), and informational messages for the selected module. When used with `-s` option, only selected message type for the module is displayed. The values for `-m <module>` are:

- `server-<n>` — where n=1–16
- `server-<nx>` — where n=1–8; x = a, b, c, d (lower case)
- `switch-<n>` — where n=1–6

- `cmc-<n>` — where n=1, 2
- `fan-<n>` — where n=1–9
- `ps-<n>` — where n=1–6
- `chassis`
- `kvm`
- `lcd`

NOTE: A few of the informational messages are applicable for more than one module. To avoid repetition of the same message for different modules, only one such informational message is displayed for the default command `racadm getactiveerrors`. When an `-m` option is used on another server or switch, the informational message is displayed, if applicable.

After you run this command, the full-height, half-height, and the quarter-height servers and switches are automatically checked for informational messages (in the same order as mentioned here).

Examples

- To display the entire log (Critical, Warning and Informational messages) for all modules.

```
racadm getactiveerrors

Module ID     = 1
Severity      = Critical
Message       = The storage battery has failed.

Module ID     = 10
Severity      = Critical
Message       = General failure after video.

Module ID     = ps-6
Severity      = Critical
Message       = The power input for power supply 6 is lost.
```

- To display Critical error messages for all the components.

```
racadm getactiveerrors –s critical

Module ID     = 1
Severity      = Critical
Message       = The storage battery has failed.

Module ID     = 10
Severity      = Critical
Message       = General failure after video.

Module ID     = ps-6
Severity      = Critical
Message       = The power input for power supply 6 is lost.
```

- To display critical error messages for server–1.

```
racadm getactiveerrors  –s critical –m server-1
Module ID     = 1
Severity      = Critical
Message       = The storage battery has failed.
```

- The error message displayed for invalid syntax.

```
racadm getactiveerrors –z cmc-1
ERROR: The syntax of the command specified is not correct.
```

- The error message displayed for invalid parameter.

```
racadm getactiveerrors –m server-80
ERROR: The syntax of the command specified is not correct.
```

- To display entire information log.

```
racadm getactiveerrors -s info
Module ID = 1
Severity = Critical
Message = A fabric mismatch deteceted for mezzanine card B1.

Module ID = ps-1
```

```
Severity = Critical
Message = The power input for power supply 1 is lost.

Module ID = ps-3
Severity = Critical
Message = The power input for power supply 3 is lost.

Module ID = cmc-1
Severity = NonCritical
Message = A firmware or software incompatibilty detected between system
BIOS in slot 4 and CMC.
```

- Display specific module log:

```
racadm getactiveerrors -m server-1
```

getarraycfg

Description To display the storage array properties and configuration status, run this command.

Synopsis

```
getarraycfg -m <module> [-s]
```

Input

- `-m` — The valid value for `–m <module>` is server–<n>, where n = 1 to 7 and 9 to 15.
- `-s` — Query for current storage configuration process status.

Output Array configured properties for:

- Member Name
- Member IP
- Group Name
- Group IP
- Fabric Selection

`<module>` configuration completed successfully.

Example

- Get the configured storage array properties from server–3.

```
racadm getarraycfg -m server-3
```

- Query for current storage configuration process status on server–3.

```
racadm getarraycfg -m server-3 -s
```

getassettag

Description Displays the asset tag for the chassis.
To run this subcommand, you must have the CMC Login User privilege.

Synopsis

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

Input `-m <module>` — Specifies the module whose asset tag you want to view.
Legal value: chassis

Example

- Display asset tag for chassis

```
racadm getassettag -m chassis
```

- `racadm getassettag`
  `chassis 78373839-33`

getchassisname

Description Displays the name of the chassis.

To run this subcommand, you must have the CMC Login User privilege.

Synopsis

```
racadm getchassisname
```

Input N/A

Example

```
racadm getchassisname
```

```
CMC-JGB6B2S
```

getconfig

Description Displays CMC configuration properties.

Synopsis

- `racadm getconfig -g <group> [-m <module>]`
- `racadm getconfig -g <group> -o <object> [-m <module>]`
- `racadm getconfig -g <group> -i <index>`
- `racadm getconfig -g <group> -o <object> -i <index>`
- `racadm getconfig -u <username>`
- `racadm getconfig -h`

Input

- `-f` — The `-f <filename>` option directs **getconfig** to write the entire CMC configurations to a configuration file. This file can be used for batch configuration operations using the **config** subcommand.

  NOTE: This option is supported only on remote interfaces.

- `-g` — The `-g <groupName>` or group option, is used to display the configuration for a single group. The `<groupName>` is the name for the group used in the **racadm.cfg** files. If the group is an indexed group, then use the `-i` option.
- `-h` — The `-h` or help option, displays a list of all available configuration groups in alphabetical order. This option is useful when you do not remember exact group names.
- `-i` — The `-i <index>` or index option, is valid only for indexed groups and is used to specify a unique group. The `<index>` is a decimal integer from 1 through n, where n can vary from 1 to maximum number of indexes a particular group supports. If `-i <index>` is not specified, then a value of 1 is assumed for groups, which are tables that have multiple entries. The `-i` option enters the index value and not a *named* value
- `-o` — The `-o <objectname>` or object option specifies the object name that is used in the query. This option is optional and can be used with the `-g` option.
- `-u` — The `-u <username>` or user name option, is used to display the configuration for the specified user. The `<username>` option is the login name for the user.
- `-v` — The `-v` option displays more information with the display of the properties and is used with the `-g` option.
- `-m` — The module must be one of the following values:
  - `server-<n>` — where `n` = 1–16
  - `server-<nx>` — where `n` = 1–8; `x`= a–d (lower case).

  NOTE: This option is available only for cfgRemoteHosts, cfgRacTuning, cfgSerial, cfgSessionManagement, cfgLanNetworking, or cfgIPv6LanNetworking commands.

Output The subcommand displays error message when:

- Invalid syntax, group name, object name, index, or any other invalid database members are entered.
- The RACADM CLI transport is unsuccessful.

If errors are not encountered, this subcommand displays the content of the specified configuration.

Example

- Displays the configuration properties (objects) that are contained in the group `cfgLanNetworking`.
  ```
  racadm getconfig -g cfgLanNetworking
  ```
- Saves all group configuration objects from CMC to **myrac.cfg**.
  ```
  racadm getconfig -f myrac.cfg
  ```
- Displays a list of the available configuration groups on CMC in an alphabetical order.
  ```
  racadm getconfig -h
  ```
- Displays the configuration properties for the user named **root**.
  ```
  racadm getconfig -u root
  ```
- Displays the user group instance at index 2 with verbose information for the property values.
  ```
  racadm getconfig -g cfgUserAdmin -i 2 -v
  ```
- Displays an entire group of serial configuration.
  ```
  racadm getconfig -g cfgSerial
  ```
- Displays a single object from a particular group.
  ```
  racadm getconfig -g cfgSerial -o cfgSerialBaudRate
  ```
- Displays an indexed group.
  ```
  racadm getconfig -g cfgUserAdmin -o cfgUserAdminUserName -i 2
  ```
- Displays information about the session information for a particular server.
  ```
  racadm getconfig -g cfgSessionManagement -m server-1
  ```
- Displays information about the WEB/SSH/Telnet information for a particular server.
  ```
  racadm getconfig -g cfgRacTuning -m server-1
  ```
- Displays information about the remote Syslog for a particular server.
  ```
  racadm getconfig -g cfgRemoteHosts -m server-1
  ```
- Displays the current Enhanced Cooling Mode property configuration.
  ```
  racadm getconfig –g cfgThermal
  ```

getdcinfo

Description

Displays general I/O module and daughter card configuration information. Only the CMC controls daughter cards.

To run this subcommand, you must have the CMC Login User privilege.

NOTE: Fabric verification for server DCs is performed only when the chassis is turned on. When the chassis is on standby power, iDRACs on the server modules remain turned off and thus are unable to report the server's DC fabric type. The DC fabric type may not be reported in the CMC user interface until iDRAC on the server is turned on.

Synopsis

- `racadm getdcinfo`
- `racadm getdcinfo [-n]`

Input

`-n` — Displays the model names for the daughter cards in servers.

Example

- The example output below is for a system with multi-slot servers:
  ```
  racadm getdcinfo

  Group A I/O Type : Gigabit Ethernet

  Group B I/O Type : Gigabit Ethernet

  Group C I/O Type : 10 GbE XAUI
  ```

<IO#>	<Type>	<State>	<Role>
switch-1	Gigabit Ethernet	OK	Master
switch-2	None	N/A	N/A
switch-3	Gigabit Ethernet	OK	Master
switch-4	None	N/A	N/A
switch-5	Gigabit Ethernet	OK	Member
switch-6	None	N/A	N/A

<Server#>	<Presence>	<DC1 Type>	<DC1 State>	<DC2 Type>	<DC2 State>
server-1	Present	None	N/A	None	N/A
server-2	Not Present	None	N/A	None	N/A
server-3	Not Present	None	N/A	None	N/A
server-4	Present	None	N/A	Gigabit Ethernet	OK
server-5	Not Present	None	N/A	None	N/A
server-6	Not Present	None	N/A	None	N/A
server-7	Not Present	None	N/A	None	N/A
server-8	Present	FibreChannel 4	Invalid	None	N/A
server-9	Extension(1)	None	N/A	None	N/A
server-10	Not Present	None	N/A	None	N/A
server-11	Not Present	None	N/A	None	N/A
server-12	Not Present	None	N/A	None	N/A
server-13	Not Present	None	N/A	None	N/A
server-14	Not Present	None	N/A	None	N/A
server-15	Not Present	None	N/A	None	N/A
server-16	Not Present	None	N/A	None	N/A

- Display the model names for the daughter cards in servers:
  `racadm getdcinfo -n`

<Server#>	<Presence>	<DC1 Model Name>	<DC2 Model Name>
server-1	Present	None	None
server-2	Not Present	None	None
server-3	Not Present	None	None
server-4	Present	None	Broadcom M5708t

```
server-5        Not Present     None        None
server-6        Not Present     None        None
server-7        Not Present     None        None
server-8        Present         LPe1105-M4  None
server-9        Extension(1)    None        None
server-10       Not Present     None        None
server-11       Not Present     None        None
server-12       Not Present     None        None
server-13       Not Present     None        None
server-14       Not Present     None        None
server-15       Not Present     None        None
server-16       Not Present     None        None
```

getflexaddr

Description

Displays enabled or disabled status for the entire chassis and fabric ID decoder. If used with the `-i` option, the command displays MACs/WWN addresses on a per slot basis.

The decoder values indicate the protocols of the network cards:

- **0** — Unsupported
- **1** — ISCSI
- **2** — FCoE-FIP
- **3** — iSCSI/FCoE-FIP

To run this subcommand, you must have the CMC Login User privilege.

NOTE: If FlexAddress is not activated on the chassis, the command displays server-assigned MAC/WWN addresses. If the slot is empty, the command enters blank in the server-assigned MAC/WWN addresses. If an external console controls the MAC/WWN addresses, the command displays an externally managed message.

Synopsis

```
racadm getflexaddr [-i <slotNum>]
```

Input

`-i <slotNum>` — Specifies the slot information that must be displayed. `<slotNum>` can be from 1 to 16.

Output

None

Example

Display current flexaddress settings for all slots and fabrics.

```
racadm getflexaddr
```

```
<Slot#>         <Status>        <Server Presence>
1               Enabled         Present
2               Enabled         Present
```

3	Enabled	Not Present
4	Enabled	Not Present
5	Enabled	Present
6	Enabled	Not Present
7	Enabled	Not Present
8	Enabled	Not Present
9	Enabled	Not Present
10	Enabled	Extension(2)
11	Enabled	Not Present
12	Enabled	Not Present
13	Enabled	Extension(5)
14	Enabled	Not Present
15	Enabled	Not Present
16	Enabled	Not Present

<Fabric>	*<Type>*	*<Status>*
A	Gigabit Ethernet	Enabled
B	None	Enabled
C	None	Enabled

Display the current flexaddress setting for slot 9.

```
racadm getflexaddr -i 9
Slot-9 server presence = Present
Slot-9 flexaddress enabled = 1
```

<Fabric>	*<Type>*	*<Server-Assigned>*	*<Chassis-Assigned>*
slot9-idrac	Controller	18:A9:9B:FD:C1:C9	F8:BC:12:E5:FE:98(active)
slot9-A1	10 GbE KR	00:90:FA:51:2E:22	F8:BC:12:E5:FE:99(active)
	10 GbE KR/3	00:90:FA:51:2E:23	F8:BC:12:E5:FE:9B(active)
	FCoE-WWN	10:00:00:90:FA:51:2E:23	20:01:F8:BC:12:E5:FE:9B(active)
slot9-A2	10 GbE KR	00:90:FA:51:2E:2A	F8:BC:12:E5:FE:9A(active)
slot9-B1	Gigabit Ethernet	A0:36:9F:12:3D:38	F8:BC:12:E5:FE:9D(active)

NOTE:
10 GbE KR/3— The value **3** indicates that the fabric is iSCSI/FCoE-FIP.

getfanreqinfo

Description	Displays fan speed request for servers and switches in percent (%). To run this subcommand, you must have the CMC Login User privilege.
Synopsis	`racadm getfanreqinfo`
Input	N/A
Output	None

Example

```
racadm getfanreqinfo

[Ambient Temperature Fan Request %]

38

[Server Module Fan Request Table]
```

<Slot#>	*<Server Name>*	*<Blade Type>*	*<Power State>*	*<Presence>*	*<Fan Request%>*
1	SLOT-01	N/A	N/A	Not Present	N/A
2	WIN-JGKC47ACGKG	PowerEdge M630	ON	Present	38
3	WIN-N24BRAT3L1J	PowerEdge M630	ON	Present	38
4	SLOT-04	PowerEdge M630	ON	Present	17
5a	nodea.NOBLEEST.COM	PowerEdgeM420	ON	Present	43
5b	SLOT-05b	PowerEdgeM420	ON	Present	43
5c	WIN-UMJ7OP4BIN3	PowerEdgeM420	ON	Present	100

5d	SLOT-05d	PowerEdge M420	ON	Present	43
6	SLOT-6	PowerEdge M820	ON	Present	27
7	SLOT-7	PS-M4110	N/A	Present	58
8	SLOT-8	N/A	Extension(7)	N/A	N/A
9	SLOT-9		N/A	Present	0
10	SLOT-10		N/A	Present	0
11	SLOT-11		ON	Present	38
12	SLOT-12	N/A	Extension(4)	N/A	N/A
13	SLOT-13	N/A	Extension(5)	N/A	N/A
14	SLOT-14	N/A	Extension(6)	N/A	N/A

```
15          SLOT-15         PowerEdge M630      ON              Present         38

16          SLOT-16         N/A                 N/A             Present         N/A

Switch Module Fan Request Table

<IO>        <Name>                          <Type>          <Presence>      <Fan Request%>

Switch-1    PowerEdge M I/O Aggregator      10 GbE KR       Present         30

Switch-2    PowerEdge M I/O Aggregator      10 GbE KR       Present         30

Switch-3    MXL 10/40GbE                    10 GbE KR       Present         30

Switch-4    N/A                             None            Not Present     N/A

Switch-5    N/A                             None            Not Present     N/A

Switch-6    N/A                             None            Not Present     N/A

[Enhanced Cooling Mode]

Enhanced Cooling Mode(ECM) Status           = Disabled
```

getioinfo

Description Displays general information about the I/O modules on the chassis.

To run this subcommand, you must have the CMC Login User privilege.

NOTE: The fabric type may be any supported I/O fabric type, such as Ethernet, Fibre Channel, and InfiniBand.

Synopsis

```
racadm getioinfo [-m <module>] [-s]
```

Input

- `-m <module>` — Specifies the module or device.`<module>` must be switch — <n>, where n = 1–6
- `-s` — Displays stack information.

Example

- `racadm getioinfo`

```
<IO>        <Name>              <Type>          <Presence>      <POST>      <Power>     <Role>

switch-1    Dell Ethernet       Gigabit         Present         OK          ON          Master
            Passthrough         Ethernet

switch-2    N/A                 None            Not Present     N/A         N/A         N/A

switch-3    Brocade 4424        Fibre           Present         OK          ON          Master
                                Channel 4

switch-4    N/A                 None            Not Present     N/A         N/A         N/A

switch-5    N/A                 None            Not Present     N/A         N/A         N/A
```

```
switch-6    N/A    None    Not Present    N/A    N/A    N/A
```

- `racadm getioinfo -s`

```
<Chassis>    <IO>        <Slot>    <Presence>    <Role>    <Unit>    <Stack ID>
JP4BF2S      Switch-1    A1        Present       Master    N/A       N/A
JP4BF2S      Switch-2    A2        Present       Master    N/A       N/A
JP4BF2S      Switch-3    B1        Present       Master    N/A       N/A
JP4BF2S      Switch-4    B2        Present       Master    N/A       N/A
JP4BF2S      Switch-5    C1        Present       Master    N/A       N/A
JP4BF2S      Switch-6    C2        Present       Master    N/A       N/A
```

- `racadm getioinfo -m switch-1`

```
<IO>        <Name>                          <Type>           <Presence>    <POST>    <Power>    <Role>
Switch-1    Dell Ethernet Pass-Through      Gigabit Ethernet Present       OK        ON         Master
```

- `racadm getioinfo -m switch-1 -s`

```
<Chassis>    <IO>        <Slot>    <Presence>    <Role>    <Unit>    <Stack ID>
C92L0G1      Switch-1     A1       Present       Master    0         d0:67:e5:a7:b7:3a
C92L0G1      Switch-2    A2        Present       Standby   1         d0:67:e5:a7:b7:3a
```

getkvminfo

Description Displays KVM module information.

To run this subcommand, you must have the CMC Login User privilege.

Synopsis `racadm getkvminfo`

Input N/A

Example

Displays KVM module information:

```
racadm getkvminfo
```

```
<module>    <presence>    <model>                 <FW Version>    <status>
KVM         Present       Avocent iKVM Switch     00.05.00.04     Ready
```

getled

Description Displays the LED settings on a module: blinking, not blinking, or unknown (for empty slots).
To run this subcommand, you must have the Login User privilege.

Synopsis
```
racadm getled -m <module>
```

Input —m <module> can be one of the following:

- server-<n> where n=1–16
- server-<nx> where n=1–8; x=a, b, c, d (lower case)
- switch-<n> where n=1–6
- chassis
- cmc-active

Output

- LED is blinking
- LED is not-blinking

Example

- `racadm getled -m server-10`
  `<module> <LED state>`

  server-10 Blinking
- `racadm getled -m chassis`
  `<module> <LED state>`

  server-10 Not blinking
- `racadm getled -m server-1`
  `<module> <LED state>`

  server-1 ON
- `racadm getled -m server-9`
  `<module> <LED state>`

  server-9 Extension(1)

getmacaddress

Description Displays the MAC/WWN addresses and fabric ID decoder for all modules or for a specified module.

The decoder values indicate the protocols of the netowrk cards:

- **0** — Unsupported
- **1** — ISCSI
- **2** — FCoE-FIP
- **3** — iSCSI/FCoE-FIP

To use this subcommand, you must have the **CMC Login User** privilege.

Synopsis

- `racadm getmacaddress`
- `racadm getmacaddress -m chassis`
- `racadm getmacaddress -m switch-<n>`
- `racadm getmacaddress [-m <module> [-x]] [-t iscsi]`
- `racadm getmacaddress [-a]`
- `racadm getmacaddress -c IO-Identity`

- `racadm getmacaddress -c Flexaddress`
- `racadm getmacaddress -c Factory`
- `racadm getmacaddress -c all`

Input

- **-m** <*module*> — Specifies the module whose MAC address you want to view.
  <*module*> may be one of the following:

  `server-<n>`, where *n*=1–16

  `server-<nx>`, where *n*=1–8; x=a,b,c,d (lower case)

  `switch-<n>`, where *n*=1–6
- **-t** — Displays the iSCSI MAC addresses for all servers or the specified server if used with -m option.
- **-x** — Displays the extra MACs (Ethernet or iSCSI) for servers with additional LOM MACs and must be used with -m option.
- **-a** — Displays the Ethernet and iSCSI MAC/WWN addresses for all iDRAC or LOMs or mezzanine cards. When FlexAddress is enabled for a particular slot, then the chassis-assigned MAC/WWN address is displayed.
- **-c** — Displays the ethernet and iSCSI MAC/WWN and assignment type, partition status of all LOMs or mezzanine cards. The `-c` option must be one of the following values:
  - **IO-Identity** — Displays the user-defined MAC/WWN addresses.
  - **FlexAddress** — Displays the chassis-assigned MAC/WWN addresses.
  - **Factory** — Displays factory MAC/WWN addresses.
  - **all** — Displays Ethernet and iSCSI MAC/WWN address, Assignment Type, and Partition Status of all LOMs or mezzanine cards.

Example

- Display MACs for all modules.
  `racadm getmacaddress`
- Display iSCSI MAC addresses for all servers.
  `racadm getmacaddress -t iscsi`
- Display iSCSI MAC for server-1.
  `racadm getmacaddress -m server-1 -t iscsi`
- Display extra iSCSI MACs for server-1 (if available).
  `racadm getmacaddress -m server-1 -t iscsi -x`
- Display the user-defined MAC and WWN address.
  - `racadm getmacaddress -c io-identity`
  - `racadm getmacaddress -c io-identity -m server -x`
- Displays the console assigned MAC/WWN of all LOMs or mezzanine cards.
  `racadm getmacaddress -c all`
- Displays the chassis-assigned WWN/MAC address.
  `racadm getmacaddress -c flexaddress`
- Displays the MAC/WWN addresses for all LOMs or mezzanine cards.
  `racadm getmacaddress -c factory`

Displays the MAC address for chassis.

`racadm getmacaddress -m chassis`

```
<Name>          <Presence>      <BMC MAC Address>   <NIC1 MAC Address>      <NIC2 MAC Address>

CMC             Present         N/A                 F0:4D:A2:77:71:72       N/A
```

```
racadm getmacaddress -m switch-1

<Name>          <Presence>      <BMC MAC Address>   <NIC1 MAC Address>      <NIC2 MAC Address>

Switch-1        Present         Not Installed       00:00:00:00:00:00       Not Installed
```

Display MAC for server-1.

```
racadm getmacaddress -m server-1

<Name>          <Presence>      <BMC MAC Address>   <NIC1 MAC Address>      <NIC2 MAC Address>

server-1        Present         00:11:43:FD:B7:2A   00:11:43:FD:B7:2A       00:11:43:FD:B7:2B

server-4        Extension(1)    N/A                 00:11:43:FD:B7:2C       00:11:43:FD:B7:2D
```

Display extra MACs for server-1 (if available).

```
racadm getmacaddress -m server-1 -x

<Name>          <Presence>      <BMC MAC Address>   <NIC1 MAC Address>      <NIC2 MAC Address>

server-1        Present         00:11:43:FD:B7:2A   00:11:43:FD:B7:2A       00:11:43:FD:B7:2B

                                                    00:11:43:FD:B7:2C       00:11:43:FD:B7:2D
```

Displays the MAC address.

```
racadm getmacaddress

<Name>          <Presence>      <BMC MAC Address>   <NIC1 MAC Address>      <NIC2 MAC Address>

CMC             Present         N/A                 00:1E:4F:1F:3C:58       N/A

Server-1        Present         00:1E:4F:2A:AF:7B   00:1E:4F:2A:D3:97       00:1E:4F:2A:D3:99

Server-2        Present         00:22:19:D2:1E:84   N/A                     N/A

Server-3        Not Present     N/A                 N/A                     N/A

Server-4        Present         00:18:8B:FF:45:2A   00:18:8B:FF:AA:02       00:18:8B:FF:AA:04

Switch-1        Present         N/A                 00:00:00:00:00:00       N/A
```

Displays the Ethernet and iSCSI MAC/WWN addresses for all iDRAC or LOMs or mezzanine cards.

```
racadm getmacaddress -a
```

<Name>	*<Type>*	*<Presence>*	*<BMC MAC Address>*	*<NIC1 MAC Address>*	*<NIC2 MAC Address>*
CMC	N/A	Present	N/A	00:1E:4F:1F:3C:58	N/A
Server-1-A	Gigabit Ethernet	Present	00:1E:4F:2A:AF:7B	00:1E:4F:2A:D3:97	00:1E:4F:2A:D3:99
	iSCSI	Present		00:1E:4F:2A:D3:98	00:1E:4F:2A:D3:9A
Server-1-B	Gigabit Ethernet	Present		Not Installed	Not Installed
	iSCSI	Present		Not Installed	Not Installed
Server-1-C	Fibre Channel 4	Present		Not Installed	Not Installed
Server-2-A	Gigabit Ethernet	Present	00:22:19:D2:1E:84	N/A	N/A
	iSCSI	Present		N/A	N/A
Server-2-B	Gigabit Ethernet	Present		Not Installed	Not Installed
	iSCSI	Present		Not Installed	Not Installed
Server-2-C	Fibre Channel 4	Present		Not Installed	Not Installed
Server-3	N/A	Not Present	N/A	N/A	N/A
Server-4-A	Gigabit Ethernet	Present	00:18:8B:FF:45:2A	00:18:8B:FF:AA:02	00:18:8B:FF:AA:04
	iSCSI	Present		00:18:8B:FF:AA:03	00:18:8B:FF:AA:05
Server-4-B	Gigabit Ethernet	Not Present		Not Installed	Not Installed
	iSCSI	Present		Not Installed	Not Installed
Server-4-C	Fibre Channel 4	Present		Not Installed	Not Installed
Switch-1	None	Present	N/A	00:00:00:00:00:00	N/A

Displays the user-defined MAC and WWN address.

```
racadm getmacaddress -c IO-Identity
```

<Name>	*<Type>*	*<Presence>*	*<Active WWN/ MAC>*	*<Partition Status>*	*<Assignment Type>*
server-4-A	IDRAC-Controller	Present	00:22:19:D2:21:F5	N/A	Factory

```
                Gigabit Ethernet    Present    84:2B:2B:1B:3D:F6    Unknown    IO-Identity

                iSCSI               Present    84:2B:2B:1B:3D:F9    Unknown    IO-Identity
```

Displays the MAC/WWN addresses for all LOMs or mezzanine cards.

```
racadm getmacaddress -c factory

<Name>        <Type>              <Presence>    <Active WWN/MAC>    <Partition Status>    <Assignment Type>

Server-7-A    IDRAC-Controller    Present       84:8F:69:D8:B1:BD   N/A                   Factory

              10 GbE KR/3         Present       00:90:FA:51:34:F5   Unknown               Factory

              10 GbE KR/3         Present       00:90:FA:51:34:FD   Unknown               Factory

Switch-1      10 GbE KR           Present       00:1E:C9:F1:04:94   N/A                   Factory

Switch-5      10 GbE KR           Present       00:00:00:00:00:00   N/A                   Factory
```

NOTE:

10 GbE KR/3— The value **3** indicates that the fabric is iSCSI/FCoE-FIP.

Displays the chassis-assigned WWN/MAC address.

```
racadm getmacaddress -c flexaddress

<Name>        <Type>              <Presence>    <Active WWN/MAC>    <Partition Status>    <Assignment Type>

Server-16-A   IDRAC-Controller    Present       F8:DB:88:3D:6F:43   N/A                   FlexAddress

              10 GbE KR           Present       F8:DB:88:3D:6F:44   Disabled              FlexAddress

              FCoE-FIP            Present       F8:DB:88:3D:6F:46   Disabled              FlexAddress

Server-16-B   10 GbE KR           Present       F8:DB:88:3D:6F:49   Unknown               FlexAddress

Server-16-C   10 GbE KR           Present       F8:DB:88:3D:6F:4D   Unknown               FlexAddress
```

Displays Ethernet and iSCSI MAC/WWN address, Assignment Type, and Partition Status of all LOMs or mezzanine cards.

```
racadm getmacaddress -c all

<Name>        <Type>              <Presence>    <Active WWN/MAC>    <Partition Status>    <Assignment Type>

server-4-A    IDRAC-Controller    Present       00:22:19:D2:21:F5   N/A                   Factory
```

Server-7-A	10 GbE KR	Present	00:90:FA:51:34:F4	Disabled	Factory
	10 GbE KR/3	Present	00:90:FA:51:34:F5	Unknown	Factory
Switch-6	10 GbE KR	Present	00:00:00:00:00:00	N/A	Factory

getmodinfo

Description Displays configuration and status information for all modules or a specified module (server, switch, CMC, fan unit, power supply unit (PSU), KVM, or I2C cable) in the chassis.

A power state of "Primary" denotes Active CMC.

To run this subcommand, you must have the CMC Login User privilege.

NOTE: The Service tag field is blank for modules that do not have service tag.

Synopsis

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

Input

- `-m <module>` — Specifies the module whose configuration and status information you want to view. The default command (no options) displays information about all major components in the chassis.

  `<module>` may be any of the following values:
  - server-<n> where n=1–16
  - server-<nx> where n=1–8; x = a, b, c, d
  - switch-<n> where n=1–6
  - cmc-<n> where n=1–2
  - fan-<n> where n=1–9
  - ps-<n> where n=1–6
  - chassis
  - kvm
  - io-cable
  - fpc-cable
- `-A` — Suppresses headers or labels in the output.

Examples

Display status of all the modules in the chassis

```
racadm getmodinfo
```

Display status of fan module 3 in the chassis

```
racadm getmodinfo -m fan-3
```

- `racadm getmodinfo -m switch-1`

<module>	*<presence>*	*<pwrState>*	*<health>*	*<svcTag>*	*<nodeId>*
Switch-1	Present	ON	OK	0000000	N/A

- `racadm getmodinfo`

<module>	*<presence>*	*<pwrState>*	*<health>*	*<svcTag>*	*<nodeId>*
Chassis	Present	ON	Not OK	noble01	N/A

Fan-1	Present	ON	OK	N/A	N/A
Fan-2	Present	ON	OK	N/A	N/A
Fan-3	Present	ON	OK	N/A	N/A
Fan-4	Present	ON	OK	N/A	N/A
Fan-5	Present	ON	OK	N/A	N/A
Fan-6	Present	ON	OK	N/A	N/A
Fan-7	Present	ON	OK	N/A	N/A
Fan-8	Present	ON	OK	N/A	N/A
Fan-9	Present	ON	OK	N/A	N/A
PS-1	Present	Online	OK	N/A	N/A
PS-2	Present	Online	OK	N/A	N/A
PS-3	Present	Online	OK	N/A	N/A
PS-4	Present	Online	OK	N/A	N/A
PS-5	Present	Online	OK	N/A	N/A
PS-6	Present	Failed	Not OK	N/A	N/A
CMC-1	Present	Primary	OK	N/A	N/A
CMC-2	Present	Standby	OK	N/A	N/A
Switch-1	Present	ON	OK	0000000	N/A
Switch-2	Not Present	N/A	N/A	N/A	N/A
Switch-3	Present	ON	OK	2XVRTS1	N/A
Switch-4	Present	ON	OK	000000	N/A
Switch-5	Present	ON	OK	N/A	N/A
Switch-6	Not Present	N/A	N/A	N/A	N/A
Server-1	Present	ON	OK	ABC1234	ABC1234
Server-2	Present	ON	OK	ABC1234	ABC1234
Server-3	Present	ON	OK	BCD1234	BCD1234
Server-4	Present	ON	OK	BCD1234	BCD1234
Server-5	Present	ON	OK	BCD1234	BCD1234
Server-6	Present	ON	OK	BCD1234	BCD1234
Server-7	Present	ON	OK	BCD1234	BCD1234
Server-8	Present	ON	OK	BCD1234	BCD1234
Server-9	Present	ON	OK	BCD1234	BCD1234
Server-10	Present	ON	OK	ABC1234	ABC1234
Server-11	Present	ON	OK	ABC1234	ABC1234
Server-12	Present	ON	OK	BCD1234	BCD1234
Server-13	Present	ON	OK	BCD1234	BCD1234
Server-14	Present	ON	OK	ABC1234	ABC1234
Server-15	Present	ON	OK	BCD1234	BCD1234
Server-16	Present	ON	OK	BCD1234	BCD1234
KVM	Present	ON	OK	N/A	N/A

```
IO-Cable        Present        ON             OK             noble01        N/A
FPC-Cable       Present        ON             OK             noble01        N/A
```

NOTE: A power state of "Primary" denotes Active CMC.

getniccfg

Description Displays the current NIC settings.

Synopsis

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

Input `-m <module>` must be one of the following values:

- `chassis` : Default state if `-m` is not specified.
- `server-<n>` : where n=1–16
- `server-<nx>` : where n=1–8; x = a, b, c, d (lower case)
- `switch-<n>` : where n=1–6

Output The **getniccfg** subcommand displays an appropriate error message if the operation is not successful. Otherwise, the output is displayed in the following format:

```
NIC Enabled                     =1
IPv4 Enabled                    =1
DHCP Enabled                    =1
Static IP Address               =192.168.0.120
Static Subnet Mask              =255.255.255.0
Static Gateway                  =192.168.0.1
Current IP Address              =192.168.0.32
Current Subnet Mask             =255.255.255.0
Current Gateway                 =192.168.0.1
IPv6 Enabled                    =0
Autoconfiguration Enabled       =1
Static IPv6 Address             =::
Static IPv6 Gateway             =::
Link Local Address              =::
Current IPv6 Address 1          =::
Current IPv6 Gateway            =::
Speed                           =Autonegotiate
Duplex                          =Autonegotiate
Redundant mode                  =0
VLAN Enable                     =0
VLAN ID                         =1
VLAN priority                   =0
```

NOTE: IPv6 information is displayed only if IPv6 is enabled in iDRAC.

Example

- Display CMC network settings

```
racadm getniccfg -m chassis
```

- Display iDRAC network settings in server slot 1

```
racadm getniccfg -m server-1
```

getpbinfo

Description Displays power budget status information.
To run this subcommand, you must have the CMC Login User privilege.

Synopsis

```
racadm getpbinfo
```

Input N/A

Example

Displays power budget status information

```
racadm getpbinfo
```

```
[Power Budget Status]

System Input Power                      = 1574 W
Peak System Power                       = 1916 W
Peak System Power Timestamp             = 09:29:20 11/26/2014
Minimum System Power                    = 374 W
Minimum System Power Timestamp          = 09:20:51 11/26/2014
Overall Power Health                    = OK
Redundancy                              = No
System Input Power Cap                  = 16685 W
Redundancy Policy                       = None
Dynamic PSU Engagement Enabled          = No
System Input Max Power Capacity         = 16685 W
Input Redundancy Reserve                = 0 W
Input Power Allocated to Servers        = 1826 W
Input Power Allocated to Chassis        = 1212 W
Infrastructure
Total Input Power Available for         = 13648 W
Allocation
Standby Input Power Capacity            = 0 W
Server Based Power Management Mode      = No
Max Power Conservation Mode             = No
Server Performance Over Power Redundan  = No
cy
Power Available for Server Power-on     = 13648 W
Extended Power Performance (EPP)        = Disabled
Status
```

```
Available Power in EPP Pool             = 0 W (0 BTU/h)
Used Power in EPP Pool                  = 0 W (0 BTU/h)
EPP Percent - Available                 = 0.0
```

[Chassis Power Supply Status Table]

<Name>	<Model>	<Power State>	<Input Current>	<Input Volts>	<Output Rated Power>
PS1	08V4DK	Online	1.0 A	240.0 V	3000 W
PS2	08V4DK	Online	1.9 A	239.2 V	3000 W
PS3	08V4DK	Online	1.1 A	239.5 V	3000 W
PS4	08V4DK	Online	1.1 A	239.5 V	3000 W
PS5	08V4DK	Online	1.0 A	239.8 V	3000 W
PS6	08V4DK	Online	1.9 A	239.8 V	3000 W

[Server Module Power Allocation Table]

<Slot#>	<Server Name>	<PowerState>	<Allocation>	<Priority>	<Blade Type>
1	SLOT-01	ON	114 W	1	PowerEdge M630
2	WIN-JGKC47ACGKG	ON	77 W	1	PowerEdge M630
3	SLOT-03	ON	93 W	1	PowerEdge M630
4	SLOT-04	ON	137 W	1	PowerEdge M630
5	SLOT-05	ON	129 W	1	PowerEdge M630
6	SLOT-06	ON	130 W	1	PowerEdge M630
7	SLOT-07	ON	120 W	1	PowerEdge M630
8	WIN-HP4N5G1EOCS	ON	104 W	1	PowerEdge M630
9	WIN-HP4N5G1EOCS	ON	116 W	1	PowerEdge M630
10	SLOT-10	ON	127 W	1	PowerEdge M630
11	SLOT-11	ON	110 W	1	PowerEdge M630
12	SLOT-12	ON	118 W	1	PowerEdge M630
13	SLOT-13	ON	106 W	1	PowerEdge M630
14	SLOT-14	ON	96 W	1	PowerEdge M630
15	SLOT-15	ON	115 W	1	PowerEdge M630
16	SLOT-16	ON	134 W	1	PowerEdge M630

NOTE: Extended Power Performance (EPP) – related fields are displayed even if EPP is disabled.

getpminfo

Description Displays power management status information.

To run this subcommand, you must have the CMC Login User privilege.

Synopsis `racadm getpminfo`

Input N/A

Example:

Displays power managemnt status information:

```
racadm getpminfo
```

```
[Real-Time Power Statistics]
System Input Power                          = 1661 W (5667 BTU/h)
Peak System Power                           = 1916 W (6537 BTU/h)
Peak System Power Start Time                = 09:19:27 11/26/2014
Peak System Power Timestamp                 = 09:29:20 11/26/2014
Minimum System Power                        = 35 W (119 BTU/h)
Minimum System Power Start Time             = 09:19:27 11/26/2014
Minimum System Power Timestamp              = 09:54:00 11/26/2014
System Idle Power                           = 1661 W (5667 BTU/h)
System Potential Power                      = 3414 W (11649 BTU/h)
System Input Current Reading                = 7.3 A

[Real-Time Energy Statistics]
System Energy Consumption                   = 1.6 kWh
System Energy Consumption Start Time        = 09:19:27 11/26/2014
System Energy Consumption Timestamp         = 10:31:42 11/26/2014

[System Power Status]
Chassis Power State                         = ON
Overall Power Health                        = OK
Redundancy                                  = No

[System Power Policy Configuration]
System Input Power Cap                      = 16685 W (56931 BTU/h | 100%)
Redundancy Policy                           = None
Dynamic PSU Engagement Enabled              = No

[Power Budgeting]
System Input Max Power Capacity             = 16685 W
Input Redundancy Reserve                    = 0 W
Input Power Allocated to Servers            = 1875 W
```

```
Input Power Allocated to Chassis Infrastructure = 1402 W

Total Input Power Available for Allocation = 13408 W

Standby Input Power Capacity = 0 W
```

getraclog

Description

The **getraclog** command displays CMC log entries.

Synopsis

- `racadm getraclog [-i]`
- `racadm getraclog [-s <start>] [-c <count>] [--more]`

NOTE: If options are not provided, the entire log is displayed.

Input

- `-c` — Specifies the number of records to display.

  NOTE: On Remote RACADM, the number of logs are restricted to 25 by default.
- `-i` — Displays the number of entries in the CMC log.
- `--more` — Displays one screen at a time and prompts you to continue (similar to the UNIX **more** command).
- `-s` — Specifies the starting record used for the display.

NOTE: When Enhanced Chassis Logging and Events feature is enabled, then -i and --more options are not displayed.

Example

- Display the starting record and the number of records.

  ```
  racadm getraclog -s 10 -c 2
  ```
- Display a few records and prompt to display another set of records.

  ```
  $ racadm getraclog --more
  Dec 4 22:23:09 CMC-JP4BF2S Login success from 192.168.0 (username=root,
  type=SSH, sid=16393)
  Dec 4 22:24:54 CMC-JP4BF2S Login success from 192.168.0 (username=test,
  type=SSH, sid=35885)
  Dec 4 22:26:20 CMC-JP4BF2S Login success from 192.168.0 (username=root,
  type=GUI, sid=27476)
  Dec 4 22:28:06 CMC-JP4BF2S Mod password of user puser succeeds
  Dec 4 22:28:06 CMC-JP4BF2S Mod privileges of user puser succeeds
  Dec 4 22:28:21 CMC-JP4BF2S Login success from 192.168.0 (username=puser,
  type=SSH, sid=39229)
  Dec 4 22:29:12 CMC-JP4BF2S Mod password of user nuser succeeds
  Dec 4 22:29:12 CMC-JP4BF2S Mod privileges of user nuser succeeds
  Dec 4 22:29:51 CMC-JP4BF2S SSH login failed (username=nuser,
  ip=192.168.0, reason=Local user fails to login )
  Dec 4 22:30:23 CMC-JP4BF2S last message repeated 3 times
  Dec 4 22:30:23 CMC-JP4BF2S Mod privileges of user nuser succeeds
  Dec 4 22:30:38 CMC-JP4BF2S SSH login failed (username=nuser,
  ip=192.168.0, reason=Local user fails to login )
  [more]
  ```
- Entry in the RAC log when Extended Power Performance control is enabled or disabled.

  ```
  racadm getraclog
  Jul 31 14:16:11 CMC-4C2WXF1 Log Cleared
  Jul 31 14:15:49 CMC-4C2WXF1 Extended Power Performance is Enabled
  Jul 31 14:15:49 CMC-4C2WXF1 Extended Power Performance is Disabled
  ```
- When Enhanced Logging mode is enabled, the output of `getraclog` is displayed similar to `chassislog` output.

Using `racadm config -g cfgRacTuning -o cfgRacTuneEnhancedLog 1` command, Enhanced Logging feature is enabled.

```
SeqNumber       = 38
Message ID      = USR8501
Category        = Audit
AgentID         = CMC
Severity        = Information
Timestamp       = 2014-10-18 15:48:10
Message Arg   1 = 14503
Message Arg   2 = 48186
Message         = Successfully closed Session process: pid=14503 sid=4818
```

getractime

Description Displays the current CMC time.

Synopsis

- `racadm getractime [-d]`
- `racadm getractime [-d] [-z]`
- `racadm getractime [-n]`

Input

- `-d` — Displays the time in the format, YYYYMMDDhhmmss.
- `-z` — Displays timezone.
- `-n` — Displays NTP peer information.

NOTE: If the options are not provided, then the getractime subcommand displays the time in a common readable format.

Output The current CMC time is displayed.

Example

- ```
  racadm getractime
  Mon May 13 17:17:12 2013
  ```
- ```
  racadm getractime -d
  20141126114423
  ```

getredundancymode

Description Displays the redundancy status (Redundant or Non-Redundant) of the CMC.
To run this subcommand, you must have the CMC Login User privilege.

Synopsis

```
racadm getredundancymode
```

Input N/A

Example

```
racadm getredundancymode
```

Redundant

getsel

Description Displays all system event log (SEL) entries in CMC.

Synopsis

- `racadm getsel [-i] [-m <module>]`
- `racadm getsel [-s <start>][-c <count>] [-m <moduel>] [--more]`

NOTE: If no arguments are specified, the entire log is displayed.

Input

- `–i` — Displays the number of entries in the SEL.
- `-s` — Displays the starting record number.
- `-c` — Specifies the number of records to display.
- `-m <module>` — Must be one of the following values:
  - `server-<n>` : where n = 1–16
  - `server-<nx>` : where n = 1–8; x = a, b, c, d (lower case)
- `--more` — Displays one screen at a time and prompts the user to continue (similar to the UNIX **more** command.)

Example

- Display entire log.
  ```
  racadm getsel
  ```
- Display number of records in log.
  ```
  racadm getsel -i
  ```

getsensorinfo

Description

Displays the status for system sensors.

To run this subcommand, you must have the login user privilege.

Synopsis

- `racadm getsensorinfo`
- `racadm getsensorinfo -c`

Input

`-c` — Compact output format.

Example

```
racadm getsensorinfo
```

<senType>	<Num>	<sensorName>	<status>	<reading>	<units>	<LC>	<UC>
FanSpeed	1	Fan-1	OK	4768	rpm	2344	14500
FanSpeed	2	Fan-2	OK	4873	rpm	2344	14500
FanSpeed	3	Fan-3	OK	4832	rpm	2344	14500
FanSpeed	4	Fan-4	OK	4704	rpm	2344	14500
FanSpeed	5	Fan-5	OK	4833	rpm	2344	14500
FanSpeed	6	Fan-6	OK	4829	rpm	2344	14500
FanSpeed	7	Fan-7	OK	4719	rpm	2344	14500
FanSpeed	8	Fan-8	NOT OK	1	rpm	2344	14500
FanSpeed	9	Fan-9	OK	4815	rpm	2344	14500
Temp	1	Ambient_Temp	OK	22	celcius	N/A	40

<senType>	<Num>	<sensorName>	<status>	<health>
PWR	1	PS-1	Online	OK
PWR	2	PS-2	Online	OK

PWR	3	PS-3	Online	OK
PWR	4	PS-4	Slot Empty	N/A
PWR	5	PS-5	Failed	OK
PWR	6	PS-6	Slot Empty	N/A

<senType>	<Num>	<sensorName>	<status>
Cable	1	IO-Cable	OK
Cable	2	FPC-Cable	OK

getslotname

Description

Displays the name and host name (if available) of all 16 slots, or of a specified slot (the slot number is indicated) in the chassis. Optionally, this command can be used to find if the slot name or host name is displayed in the CMC User Interface or with the `getslotname –i <slotNum>` command. If the host name is not available, the static slot name is used.

To use this subcommand, you must have the CMC Login User privilege.

Synopsis

- `racadm getslotname`
- `racadm getslotname -i <slotNum>`
- `racadm getslotname -h <enabled>`

Input

- `racadm getslotname` — Displays the slot name for all 16 slots in the chassis.
- `-i <slotNum>` — specifies the ID of the slot.
  Legal values: 1–16
- `-h <enabled>` — Specifies whether to use the slot name or the host name (if available).
  1= use host names, 0=use slotnames

Example

- Displays the slot name for all 16 slots in the chassis

```
racadm getslotname
```

```
<Slot #> <Slot Name>       <Host name>
   1       SLOT-01
   2       Webserver01     WXP-8GRB221
   3       Webserver3      WXP-319QWEecet5
   4       SLOT-04
   5       SLOT-05
   6       SLOT-06
   7       SLOT-07
   8       SLOT-08
   9       SLOT-09
  10       SLOT-10
  11       SLOT-11
  12       SLOT-12
  13       SLOT-13
  14       SLOT-14
  15       SLOT-15
  16       SLOT-16
```

```
racadm getslotname -i 1

SLOT-01
```

- Check if Display Host names is active (1 = Active).

```
racadm getslotname -h
```

getssninfo

Description

Displays a list of users that are connected to CMC. The following information is displayed:

- Session ID
- Username
- IP address (if applicable)
- Session type (for example, serial or Telnet)
- Login date and time in MM/DD/YYYY HH:MM:SS format

NOTE: Based on the Session ID (SSNID) or the user name (User), the CMC administrator can close the respective sessions or all the sessions using the `closessn` subcommand. For more information, see closessn.

Synopsis

```
racadm getssninfo [-u <username> | -u *] [-A]
```

Input

- `-u` — displays only sessions associated with a specific user.
- `-A` — does not display headers or labels.

Example

```
racadm getssninfo
```

SSNID	Type	User	IP Address	Login Date/Time
6	GUI	root	192.168.0	04/07/2010 12:00:34

Display the details of sessions without header

```
racadm getssninfo -A
"43584" "SSH" "root" "192.168.0" "11/26/2014 18:37:03"
```

- Display all currently active sessions for a specific user

```
racadm getssninfo -u root
```

getsvctag

Description

Displays the service tag of the host system.

Synopsis

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

Input

`-m <module>` — Must be one of the following values:

- `chassis`
- `server-<n>` — where n = 1–16
- `server-<nx>` — where n = 1–8; x = a, b, c, d (lower case)
- `switch-<n>` — where n = 1–6

Output

Any system tag as applicable.

Example

- Display Service tag of Server in Slot 1

```
racadm getsvctag -m server-1
```

- Display Service tag of all the components in the chassis

```
racadm getsvctag
```

getsysinfo

Description Displays information related to CMC, managed system, and watchdog configuration.

Synopsis

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

Input

- —4 — Displays IPv4 settings
- —6 — Displays IPv6 settings
- —c — Displays common settings
- —d — Displays CMC information
- —A — Eliminates the printing of headers or labels

Output

```
racadm getsysinfo
CMC Information:
CMC Date/Time              = Wed Sep 17 2014 23:13
Primary CMC Location         = CMC-1
Primary CMC Version       = 5.00
Standby CMC Version       = 5.00
Last Firmware Updated     = Tue Sep 16 2014 22:11
Hardware Version          = A09
```

```
CMC Network Information:
NIC Enabled             = 1
MAC Address             = 78:2B:CB:46:5C:8A
Register DNS CMC Name   = 1
DNS CMC Name            = cmc-effort
Current DNS Domain      = cmc.com
VLAN ID                 = 1
VLAN Priority           = 0
VLAN Enabled            = 0
```

```
CMC IPv4 Information:
IPv4 Enabled            = 1
Current IP Address      = 192.168.0
Current IP Gateway      = 192.168.0
Current IP Netmask      = 255.255.255.0
DHCP Enabled            = 1
Current DNS Server 1    = 0.0.0.0
Current DNS Server 2    = 0.0.0.0
DNS Servers from DHCP   = 0
```

```
CMC IPv6 Information:
IPv6 Enabled            = 0
Autoconfiguration Enabled = 0
Link Local Address      = ::
Current IPv6 Address 1  = ::
Current IPv6 Gateway    = ::
Current IPv6 DNS Server 1 = ::
Current IPv6 DNS Server 2 = ::
DNS Servers from DHCPv6  = 0
```

```
Chassis Information:
System Model            = PowerEdge M1000e
System AssetTag         = 123456789012345678901234567812344567712345678 90asvcdefrtghyhytg
Service Tag             = JGB6B2S
Chassis Name            = CMC-JGB6B2S
Chassis Location        = 3rdflor
```

```
Chassis Midplane Version= 1.1
Power Status            = ON
```

Example

- Display Chassis information

  ```
  racadm getsysinfo -c
  ```

- Display CMC information

  ```
  racadm getsysinfo -d
  ```

- Display IPv4 details without header

  ```
  racadm getsysinfo -A
  ```

  ```
  "CMC IPv4 Information:"
  "1"
  "192.168.0"
  "192.168.0"
  "255.255.255.0"
  "1"
  "192.168.0"
  "0.0.0.0"
  "1"
  ```

gettracelog

Description Displays the CMC diagnostic trace log.

Synopsis

- `racadm gettracelog [-i]`
- `racadm gettracelog [-s <start>] [-c <count>] [--more]`

Input

- `–i` — Displays the number of entries in CMC trace log.
- `--more` — Displays one screen at a time and prompts the user to continue (similar to the UNIX more command).
- `-c` — Specifies the number of records to display.
- `-s` — Specifies the starting record to display.

Output The default output display shows the record number, timestamp, source and description. The timestamp begins at midnight, January 1 and increases until the system starts. After the system starts, the system's timestamp is used.

Example

- Display entire log

  ```
  racadm gettracelog
  ```

- Display number of records in log

  ```
  racadm gettracelog -i
  ```

  ```
  Total Records: 228
  ```

getversion

Description Displays the current software version, model and generation information, and whether the target device can be updated.

Synopsis

Example

- Displays the version for server 4.

  ```
  racadm getversion -m server-4
  ```

- Displays the Lifecycle Controller component versions for servers 1 and 3.

```
racadm getversion -l -m server-1 -m server-3
```

```
racadm getversion -m server-1
```

<server>	<iDRAC version>	<Blade Type>	<Gen>	<Updatable>
server-1	1.40.40 (Build 08)	PowerEdge M520	iDRAC	Y
server-2	3.50 (Build 2)	PowerEdgeM610x	iDRAC6	Y
server-4	3.50 (Build 4)	PowerEdgeM710HD	iDRAC6	

```
racadm getversion -c
```

<Server>	*<CPLD Version>*	*<Blade Type>*
server-1	1.0.5	PowerEdgeM520
server-2	1.0.3	PowerEdgeM610x
server-4	1.0.0	PowerEdgeM710HD
server-5	1.0.3	PowerEdgeM710
server-7	1.0.6	PowerEdgeM620
server-9	1.0.5	PowerEdgeM520

```
racadm getversion -l -m server-1
```

<Server>	*<Component>*	*<Version>*	*<Install Date>*
server-1	BIOS	1.6.0	2013-01-09
	iDRAC1.40.40	1.40.40	2013-01-31
	USC	1.1.5.154	2013-04-16
	Diagnostics	4225A2	2012-12-21
	OS Drivers	7.2.0.7	2012-12-21
	BIOS	1.5.2	Rollback
	BP12G+ 0:1	0.16	Reinstall
	iDRAC		Rollback
	System CPLD	1.0.5	1999-12-31
	NIC-Broadcom Gigabit Ethernet BCM5720 - BC:30:5B:97:06:C4	7.6.6	Rollback

NIC-Broadcom Gigabit Ethernet BCM5720 - BC:30:5B:97:06:C4	7.6.12	Reinstall
NIC-Broadcom Gigabit Ethernet BCM5720 - BC:30:5B:97:06:C4	7.6.12	2013-04-02
NIC-Broadcom Gigabit Ethernet BCM5720 - BC:30:5B:97:06:C6	7.6.6	Rollback
NIC-Broadcom Gigabit Ethernet BCM5720 - BC:30:5B:97:06:C6	7.6.12	Reinstall
NIC-Broadcom Gigabit Ethernet BCM5720 - BC:30:5B:97:06:C6	7.6.12	2013-04-02
NIC-PERC S110 Controller	3.0.0-0139	2012-10-11
RAID-PERC H310 Mini	20.10.1-0084	Reinstall
RAID-PERC H310 Mini	20.10.1-0084	Reinstall
RAID-PERC H310 Mini	20.10.1-0084	2012-02-09
BP12G+ 0:1	0.16	1999-12-31

```
racadm getversion -l -m server-1 -f bios
```

<Server>	*<Component>*	*<Version>*	*<Install Date>*
server-1	BIOS	1.6.0	2013-01-09

ifconfig

Description Displays the contents of the network interface table.

To use this subcommand, you must have the Administrator privilege.

Synopsis

```
racadm ifconfig
```

Input N/A

Example

```
$ racadm ifconfig
```

```
eth0      Link encap:Ethernet  HWaddr 00:1D:09:FF:DA:23
          inet addr:10.35.155.136  Bcast:10.35.155.255 Mask:255.255.255.0
          UP BROADCAST RUNNING MULTICAST  MTU:1500 Metric:1
          RX packets:2550665 errors:0 dropped:0 overruns:0 frame:0
          TX packets:0 errors:0 dropped:0 overruns:0 carrier:0
          collisions:0 txqueuelen:1000
          RX bytes:272532097 (259.9 MiB)  TX bytes:0 (0.0 B)
```

krbkeytabupload

Description Uploads a **Kerberos keytab** file to CMC.
To run this subcommand, you must have the Configure Chassis Administrator privilege.

NOTE: This subcommand is only supported on the remote interface(s).

Synopsis

```
racadm krbkeytabupload [-f <filename>]
```

`<filename>` is the name of the file including the path.

Input `-f` — Specifies the filename of the keytab uploaded. If the file is not specified, the keytab file in the current directory is selected.

Example Upload a kerberos keytab file from the local filesystem:

```
racadm krbkeytabupload -f c:\keytab\krbkeytab.tab
```

netstat

Description Displays the routing table and the current connections.
To run this subcommand, you must have the Execute Diagnostic Commands permission.

Synopsis

```
racadm netstat
```

Input N/A

Output

```
Kernel IPv6 routing table
```

Destination	*Next Hop*	*Flags Metric*	*Ref*	*Use*	*Iface*
::1/128	::	U	0	30	1 lo
fe80::200:ff:fe00:d01/128	::	U	0	0	1 lo
fe80::/64	::	U	256	0	0 ethl
ff00::/8	::	U	256	0	0 ethl

```
Kernel IP routing table
```

Destination	*Gateway*	*Genmask*	*Flags*	*MSS*	*Window*	*irtt*	*Iface*
192.168.0.31	0.0.0.0	255.255.255.0	U	0	0	0	bond0
0.0.0.0	192.168.0.32	0.0.0.0	UG	0	0	0	bond0

```
Active Internet connections (w/o servers)
```

Proto	*Recv-Q*	*Send-Q*	*Local Address*	*Foreign Address*	*State*
tcp	0	0	127.0.0.1:8195	127.0.0.1:52887	ESTABLISHED
tcp	0	0	127.0.0.1:52175	127.0.0.1:199	ESTABLISHED

```
tcp        0      0      127.0.0.1:199     127.0.0.1:52175   ESTABLISHED
tcp        0      0      192.168.0.32      192.168.0.31      ESTABLISHED
tcp        0      0      127.0.0.1:52174   127.0.0.1:199     ESTABLISHED
tcp        0      0      127.0.0.1:52887   127.0.0.1:8195    ESTABLISHED
```

ping

Description Verifies if the destination IP address is reachable from CMC with the current routing-table contents. A destination IP address is required. Based on the current routing-table contents, an ICMP echo packet is sent to the destination IP address.

To run this subcommand, you must have the **Administrator** privilege.

Synopsis

```
racadm ping <ipaddress>
```

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

Output

```
PING 192.168.0 (192.168.0): 56 data bytes64 bytes from 192.168.0: seq=0
ttl=64 time=4.121 ms
192.168.0 ping statistics
1 packets transmitted, 1 packets received, 0 percent packet lossround-trip
min/avg/max = 4.121/4.121/4.121 ms
```

ping6

Description Verifies if the destination IPv6 address is reachable from CMC or with the current routing-table contents. A destination IPv6 address is required. Based on the current routing-table contents, an ICMP echo packet is sent to the destination IPv6 address.

To run this subcommand, you must have the **Administrator** privilege.

Synopsis

```
racadm ping6 <ipv6address>
```

Input <ipv6address> — the IPv6 address of the remote endpoint to ping.

Example

```
Pinging 2011:de11:bdc:194::31 from 2011:de11:bdc:194::101 with 32 bytes of
data:
Reply from 2011:de11:bdc:194::31: time<1ms
Reply from 2011:de11:bdc:194::31: time<1ms
Reply from 2011:de11:bdc:194::31: time<1ms
Reply from 2011:de11:bdc:194::31: time<1ms

Ping statistics for 2011:de11:bdc:194::31:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
    Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

racdump

Description Provides a single command to get dump, status, and general CMC board information.

This subcommand displays the comprehensive chassis status, configuration state information, and historic event logs. Used for post deployment configuration verification and during debugging sessions.

To run this subcommand, you must have the Administrator privilege.

Racdump includes the following subsystems and aggregates the following RACADM commands:

- General System/RAC information — **getsysinfo**
- Session information — **getssinfo**
- Sensor information — **getsensorinfo**
- Switches information (IO Module) — **getioinfo**
- Mezzanine card information (Daughter card) — **getdcinfo**
- All modules information — **getmodinfo**
- Power budget information — **getpbinfo**
- KVM information — **getkvminfo**
- NIC information (CMC module) — **getniccfg**
- Redundancy information — **getredundancymode**
- Trace log information — **gettracelog**
- RAC event log — **getraclog**
- System event log — **getsel**

Synopsis

```
racadm racdump
```

Input

N/A

Output

The following information is displayed when this subcommand is processed:

- General system or RAC information
- Coredump
- Session information
- Process information
- Firmware build information

Example

```
racadm racdump
```

```
================================================================================
 General System/RAC Information
================================================================================

CMC Information:
CMC Date/Time           = Wed, 28 Nov 2007 11:55:49 PM
Active CMC Version      = X08
Standby CMC Version     = N/A
Last Firmware Update    = Wed Nov 21 21:37:56 2007
Hardware Version        = 2
Current IP Address      = 192.168.0.1
Current IP Gateway      = 192.168.0.1
Current IP Netmask      = 192.168.0.1
DHCP Enabled            = 1
MAC Address             = 00:55:AB:39:10:0F
Current DNS Server 1    = 0.0.0.0
Current DNS Server 2    = 0.0.0.0
DNS Servers from DHCP   = 0
Register DNS CMC Name   = 0
DNS CMC Name            = cmc-servicetag
Current DNS Domain      =


Chassis Information:
System Model            = PowerEdgeM1000eControlPanel
System AssetTag         = 00000
Service Tag             =
Chassis Name            = Dell Rack System
Chassis Location        = [UNDEFINED]
```

```
Power Status            = ON

================================================================================
 Session Information
================================================================================

Type    User     IP Address      Login Date/Time
SSH     root     10.9.72.252     11/28/2007 23:40:53
KVM     root     169.254.31.30   11/28/2007 18:44:51
```

```
================================================================================
 Sensor Information
================================================================================

<senType> <Num> <sensorName> <status> <reading> <units> <lc>
<uc>
FanSpeed    1    Fan-1         OK      14495    rpm     7250 14500
FanSpeed    2    Fan-2         OK      14505    rpm     7250 14500
FanSpeed    3    Fan-3         OK       4839    rpm     2344 14500
FanSpeed    4    Fan-4         OK      14527    rpm     7250 14500
FanSpeed    5    Fan-5         OK      14505    rpm     7250 14500
FanSpeed    6    Fan-6         OK       4835    rpm     2344 14500
FanSpeed    7    Fan-7         OK      14521    rpm     7250 14500
FanSpeed    8    Fan-8       Not OK        1    rpm     7250 14500
FanSpeed    9    Fan-9         OK       4826    rpm     2344 14500

<senType> <Num> <sensorName> <status> <reading> <units> <lc>
<uc>
Temp        1   Ambient_Temp    OK       21     celcius  N/A  40

<senType> <Num>  <sensorName>  <status>   <AC-OK status>
PWR         1       PS-1        Online          OK
PWR         2       PS-2        Online          OK
PWR         3       PS-3        Online          OK
PWR         4       PS-4       Slot Empty       N/A
PWR         5       PS-5        Failed          OK
PWR         6       PS-6        Slot Empty      N/A
```

racreset

Description

Resets CMC. The reset event is logged in the hardware (SEL) and CMC (RAC) logs.

To run this subcommand, you must have the Chassis Administrator privilege.

NOTE: After you run the racreset subcommand, CMC may require up to two minutes to return to a usable state.

NOTE: There is a 100 percent fan request when the command is run against the servers.

Synopsis

```
racadm racreset [-m <module> [-f]]
```

Input

- `-m` — The values must be one of the following:
  - server–<n> — where n=1–16
  - server–<nx> — where n=1–8; x = a, b, c, d (lower case)

  NOTE:
  - Multiple modules may be specified, such as `-m <module1> -m <module 2>`.
  - `-f` option is used to force the reset and is available only with an `-m` option.

Output

```
racadm racreset
RAC reset operation initiated successfully. It may take up to a minute for
the RAC to come online again.
```

Example

- To reset CMC.

  ```
  racadm racreset
  ```

- To reset server 1

  ```
  racadm racreset -m server-1
  ```

- To reset servers 1 and 3

  ```
  racadm racreset -m server-1 -m server-3
  ```

racresetcfg

Description

Deletes your current CMC configuration and resets CMC to the factory default settings. After reset, the default name and password are **root** and **calvin**, respectively, and the IP address is 192.168.0.120.

If you run `racresetcfg` from a network client (for example, a supported web browser, Telnet or SSH, or Remote RACADM), use the default IP address. The `racresetcfg` subcommand does not reset the **cfgDNSRacName** object.

To run this subcommand, you must have the Chassis Administrator privilege.

NOTE: Certain firmware processes must be stopped and restarted to complete the reset to defaults. CMC becomes unresponsive for about 30 seconds while this operation completes.

NOTE: There is a 100 percent fan request when the command is issued against the servers.

Synopsis

- `racadm racresetcfg`

  ```
  RAC reset operation initiated successfully. It may take several minutes
  for the RAC to come online again.
  ```

- `racadm racresetcfg [-m <module>] [-c <feature>]`

Input

- `-m <module>` — Specifies the device to reset the configuration on `<module>`. `<module>` must be one of the following values:
  - `chassis` — Default state if `-m` is not specified
  - `server-<n>` — where `n`=1–16
  - `server-<nx>` — where `n`=1–8; `x`=a, b, c, d (lower case)
  - `kvm`
- `-c <feature>` — Must be one of the following values:
  - `ad` — Reset Active Directory properties to default (default is disabled).
  - `pcap` — Reset Power Cap to default.
  - `flex` — Reset flexaddress properties to default (default is disabled).
  - `dpse` — Reset Dynamic Power Supply Engagement to default (default is disabled).

NOTE: FlexAddress or FlexAddressPlus will be set to enabled on running racadm `racresetcfg` (default is enabled without –c option). The server must be turned off prior to running this command to change the slot state.

NOTE: `-c` option is valid with <module = chassis> only.

NOTE: If chassis is the target of `racresetcfg`, CMC resets after the operation.

Example

- Reset the KVM configuration on CMC.

  ```
  racadm racresetcfg -m kvm
  ```

The configuration has initiated restoration to factory defaults.

- Reset blade 8 configuration from CMC.

```
racadm racresetcfg -m server-8
```

The RAC configuration has initiated restoration to factory defaults.

Wait up to a minute for this process to complete before accessing the RAC again.

remoteimage

Description

Connects, disconnects, or deploys a media file on a remote server.

To run this subcommand, you must have the **Configure Chassis Administrator** privilege.

Synopsis

- `racadm remoteimage [-m <module> | -a]`
- `racadm remoteimage -d [-m <module> | -a]`
- `racadm remoteimage -s [-m <module> | -a]`
- `racadm remoteimage -c [-m <module> | -a] [-u <username> -p <password> -l <image_path>]`
- `racadm remoteimage -e [-m <module> | -a] [-u <username> -p <password> -l <image_path>]`

Input

- `-c` — Connect the image.
- `-d` — Disconnect image.
- `-u` — User name to access the network share.
- `-p` — Password to access the network share.
- `-l` — Image location on the network share; use single quotation marks around the location.
- The image path can be on a Windows SMB mounted drive or a Linux or Unix NFS mounted drive.

  SMB mounted path:

  //<ipaddress_or_domain_name>/<share_name>/<path_to_image>

  NFS mounted path:

  <ipaddress>:/<path_to_image>.

  The extension of **<path_to_image>** must be either **.iso** or **.img**.
- `-s` — Display current status.

NOTE: Use a forward slash (/) when providing the image location. If backward slash (\) is used, override the backward slash for the command to run successfully.

For example:

```
racadm remoteimage -c -u user -p xxx -l /\/\192.168.0/\CommonShare/
\diskette.img
```

- `-e` — Deploys a remote image. The first boot device is set to the shared image and the server is set to reboot.
- `-m <module>` — Specifies the server to deploy the image to one of the following:
  - sever–<n>, where n=1–16
  - server–<nx> where n=1–8; x=a, b, c, d (lower case)
- `-a` — Applies options for slots for all present servers.

NOTE: The following options only apply to connect and deploy actions

- `-u` — Username
- `-p` — Password

Example

- Deploy a remote image on iDRAC CIFS share for all the servers.

```
racadm remoteimage -c -a -l '//192.168.0/dev/floppy.img' -u admin -p xxx
```

- Deploy a remote image on iDRAC NFS share for all the servers.

```
 racadm remoteimage -c -a -l '192.168.0:/dev/floppy.img' -u admin -p xxx
```

serveraction

Description

Enables you to perform power management operations on the blade system.

To run this subcommand, you must have the Execute Server Control Commands permission.

Synopsis

- `racadm serveraction -a <action>`
- `racadm serveraction -m <module> <action>`

Input

- `-m <module>` — Must be one of the following values:
  - server–<n>: where n=1–16
  - server–<nx>: where n=1–8; x=a–d (enter lower case letter only)
- `-a` — Performs power action on all servers. Not allowed with the `powerstatus` action.

`<action>` — Specifies the power management operation to perform. The options are:

- `hardreset` — Performs a force reset (reboot) operation on the managed system.
- `powercycle` — Performs a power-cycle operation on the managed system. This action is similar to pressing the power button on the system's front panel to turn off and then turn on the system.

  NOTE: The `-m` and `-a` options are applicable only to CMC platforms.

  NOTE: If the server is in turned off state, the `powercycle` option power up the server.
- `powerdown` — Powers down the managed system.
- `powerup` — Powers up the managed system.
- `powerstatus` — Displays the current power status of the server (ON or OFF).
- `graceshutdown` — Performs a graceful shutdown of the server. If the operating system on the server cannot shut down completely, then this operation is not performed.
- `-f` — Force the server power management operation.
- `reseat` — Performs virtual reseat of the server. This operation simulates reseating the blade by resetting the iDRAC on that blade. `-f` is required for this operation.

NOTE: The action`powerstatus` is not allowed with `-a` option.

Output

Displays an error message if the requested operation is not completed, or a success message if the operation is completed.

Example

- Power down the operating system on the server by using the following command:

```
racadm serveraction powerdown
Powers down the managed system
```

- Reseat blade 2 on CMC by using the following command:

```
racadm serveraction -m server-2 reseat -f
Server power operation successful
```

- Turn off the server 16 from CMC by using the following command:

```
racadm serveraction -m server-16 powerdown
Server power operation successful
```

- Get Power Status of blade 16 on CMC by using the following command:

```
racadm serveraction -m server-16 powerstatus
 ON
```

- Turn off the server 16 from CMC, when the power is already turned off on that server by using the following command:

```
racadm serveraction -m server-16 powerdown
Server is already powered OFF.
```

- Power action on all servers by using the following command:

```
racadm serveraction -a powerup
```

setarraycfg

Description To configure storage array properties, run this command.

Synopsis

- `racadm setarraycfg -m module -n <member_name> <member_ip> <member_mask> <member_gateway> -e 0|1 -g <groupname> <group_id> <group_password> [<admin_password>] [-f A|B]`
- `racadm setarraycfg -f A|B`

NOTE: The valid value for `-m` is server–n, where n=1–16.

Input

- `-m` — Module is one of the following values:
  - server–<n>: where n = 1–7 and 9–15
- `<member_name>` — A unique and descriptive name that is fewer than 64 alphanumeric characters, without spaces. The first character is a letter or a number. It is used only to identify and administer the array.
- `<member_ip>` — Each member IP Network address must have at least one network interface on the same subnet as the group IP address.
- `<member_mask>` — Member Netmask combines with the member IP address to identify the subnet on which the network interface specified resides. The default is 255.255.255.0
- `<member_gateway>` — Member Gateway network address is for the device that connects the subnet and forward the network traffic beyond the local network.
- `–e` — Selects existing or create new group for a member. The valid values are:
  - 0 — to create new group
  - 1 — to use existing group

  NOTE: If `–e` is 0, then admin password is mandatory.
- `<group_name>` — Name of the group for administrative purpose. You can use up to 64 alphanumeric characters and hyphens. The first character must be a letter or number.
- `<group_ip>` — Group IP and Network address for the group. The group IP address is used for administrative and host access to volumes.
- `<group_password>` — Group Membership Management Password is required when adding members to the group. The password must have 3 to 16 alphanumeric characters and is case-sensitive.
- `<admin_password>` — Group Administration Password to set admin password when creating new group and overrides the factory-set password. *grpadmin* is the default *grpadmin* account. The password must have 3 to 16 alphanumeric characters and is case-sensitive.
- `–f` — The valid values are *A or B*. Select Fabric used for data I/O. Options are:
  - Fabric A (LOM port)
  - Fabric B (mezzanine port)

  The default is Fabric B. If the option is not specified, then the configuration is not done.

Output `<module>` configuration was initiated successfully. It may take several minutes to complete.

Example

- Set member name, member IP, member netmask, member gateway with new group name, group IP, group password, admin password selecting fabric A on server-1.

```
racadm setarraycfg -m server-1 -n cmc-col 192.168.1.233 255.255.255.0
192.168.1.0 -e 0 -g cmc-array-grp 192.168.1.10 <password> -f A
```

- Set member name, member IP, member netmask, member gateway with existing group name, group IP, group password selecting fabric B on server-1.

  ```
  racadm setarraycfg -m server-1 -n cmc-col 192.168.1.233 255.255.255.0
  192.168.1.0 -e 1 -g cmc-array-grp 192.168.1.10 <password> -f B
  ```

- Select different fabric type.

  ```
  racadm setarraycfg -m server-3 -f A
  ```

setassettag

Description Sets the N-byte ASCII asset tag for the chassis.

To use this subcommand, you must have the Administrator privilege.

NOTE: The special characters " (double quotation mark), ' (backward quotation mark), & (ampersand), and \ (backward slash) are not supported for this subcommand.

Synopsis

```
racadm setassettag -m module <assettag>
```

Input `-m <module>` — Specifies the module whose asset tag you want to set.

Legal value: chassis

You can obtain the same output if you do not include this option, as there is only one legal value.

`<assettag>` is a maximum of 64 non-extended ASCII characters.

Example

- `racadm setassettag -m chassis 783839-33`
- `racadm setassettag 783839-33`

  The asset tag was changed successfully.

setchassisname

Description Sets the name of the chassis in the LCD.

To run this subcommand, you must have the Administrator privilege.

NOTE: The special characters " (double quotation mark), ' (backward quotation mark), & (ampersand), and \ (backward slash) are not supported for this subcommand.

Synopsis

```
racadm setchassisname <name>
```

NOTE: Chassis name is a maximum of 64 nonextended ASCII characters.

Example

```
racadm setchassisname dellchassis-1
```

The chassis name was set successfully.

setflexaddr

Description Enables or disables FlexAddress on a particular slot or fabric.

To run this subcommand, you must have the Chassis Configuration Administrator privilege.

If the fabric type is determined to be InfiniBand, the operation is canceled and the command returns an error. If the FlexAddress feature is not activated, the command returns an error.

NOTE: The server must be turned off to change the slot state. All servers must be turned off to change the fabric state. The MAC/WWN addresses must be managed locally (not by an external console) to run this command.

Synopsis

- `racadm setflexaddr -i <slotNum> 0|1`
- `racadm setflexaddr -f <fabricName> 0|1`

Input

- `-i <slotNum>` — Enables or disables FlexAddress for the specified slot.
- `-f <fabricName>` — Enables or disables FlexAddress for the specified fabric.
- `<slotNum>`= 1–16
- `<fabricName>`= A, B, C, iDRAC
  - 0 : Disable
  - 1 : Enable

Example

- Disable flexaddress for slot 2.
  `racadm setflexaddr -i 2 0`
- Enable flexaddress for fabric A.
  `racadm setflexaddr -f A 1`
- Disable flexaddress for fabric B.
  `racadm setflexaddr -f b 0`
- Disable flexaddress for fabric iDRAC.
  `racadm setflexaddr -f idrac 0`

setled

Description

Sets the state (blinking or not blinking) of the LED on the specified module.

To blink or unblink the chassis, I/O modules or the CMC, you must have the Debug Administrator privilege. To enable the servers to blink or unblink, you must have the Server Administrator or the Debug Administrator privilege.

Synopsis

`racadm setled -m <module> -l <ledState>`

Input

- `-m <module>` — Specifies the module whose LED you want to configure.
  `<module>` can be one of the following:
  - server–<n>, where n=1–16
  - server–<nx>, where n=1–8; x = a, b, c, d (lower case)
  - switch–<n>, where n=1–6
  - cmc-active
  - chassis
- `-l <ledState>` — Specifies the LED state. The values are:
  - 0 — No Blinking
  - 1 — Blinking

Example

- `racadm setled -m chassis -l 1`

  Sets LED state on Chassis to Blink
- `racadm setled -m server-1 -l 1`

  LED state was set successfully.

- `racadm setled -m server-9 -1 1`

  ```
  ERROR: Server in slot 9 is an extension of the server in slot 1.
  ```

  NOTE: The `setled` command generates an error when run on the extension slot of a multi-slot server.

setniccfg

Description

Sets the iDRAC or CMC IP address for static and DHCP modes.

To run this subcommand, you must have the **Configure Chassis Administrator** privilege.

NOTE: The command helps to modify network configuration properties.

NOTE: The terms NIC and Ethernet management port may be used interchangeably.

Synopsis

- `racadm setniccfg [-m <module>] -d [-6]`
- `racadm setniccfg [-m <module>] -s <ipAddress> <netmask> <gateway>`
- `racadm setniccfg [-m <module>] -s -6 <ipv6Address> <prefixlen> <gateway>`
- `racadm setniccfg [-m <module>] -v [<vlan_id> <vlan_priority>]`
- `racadm setniccfg [-m chassis] -o`
- `racadm setniccfg -p [-6]`
- `racadm setniccfg [-m <module>] -k [<speed> <duplex>]`
- `racadm setniccfg [-i <slot>] -v [<vlan_id> <vlan_priority>]`

Input

- `-d` — Enables DHCP for the NIC. It is enabled by default.
- `-d6` — Enables AutoConfig for the NIC (default is disabled).
- `-s` — Enables static IP settings. The IPv4 address, netmask, and gateway must be specified. Otherwise, the existing static settings are used. `<ipaddress>`, `<netmask>`, and `<gateway>` must be typed as dot-separated strings.

  ```
  racadm setniccfg -s 192.168.0 255.255.255.0 192.168.0
  ```
- `-s6` — Enables static IPv6 settings. The IPv6 address, Prefix Length, and the IPv6 Gateway can be specified.
- `-o` — Enable or disable NIC.
- `-m<module>` — Must be one of the following values:
  - `chassis` — Default state if `-m` is not specified
  - server–<n>: where n=1–16
  - server–<nx>: where n=1–8; x=a–d (lower case)
  - switch–<n>: where n=1–6
- `-v` — VLAN settings has following legal values: no arguments imply remove VLAN tag, not compatible with server–nx (for example "server–4b") notation `<vlan_id>`=between 1 and 4000, 4021 and 4094, inclusive `<vlan_priority>`=between 0 and 7, inclusive.
- `-p` — Disables IPv4(default) or IPv6 protocol.
- `-k` — Option has following legal values: no arguments imply autonegotiate `<speed>`=10, 100 `<duplex>` =half, full.

NOTE:

- `-o`, `-k`, `-p`: These options can be specified for chassis only
- `-6`: Sets static IPv6 addresses (with `-s`option). Enables **autoconfig** for IPv6 (with`-d` option) disables IPv6 (with`-p` option) can be specified for chassis or servers.
- `-v`: When performing on a switch, release and renew any DHCP lease on that port for changes to take effect.

Example

- Configuration of Speed= 100 Mbps and duplex= full duplex.
  ```
  racadm setniccfg -k 100 full
  ```
- Configuration of Speed and Duplex to Autonegotiate.
  ```
  racadm setniccfg -k
  ```
- Configuration of VLAN id and priority of a slot or all blades in a sleeve.
  ```
  racadm setniccfg -i 5 -v 1000  7
  ```
- Configuration of CMC to a static IPv6 address.
  ```
  racadm setniccfg -m chassis -s -6 2001:DB8::2 64 2001:DB8::1
  ```
- Configuration of server to use stateless autoconfiguration address.
  ```
  racadm setniccfg -m server-1 -d -6
  ```
- Configuration of VLAN id and priority for a switch.
  ```
  racadm setniccfg -m switch-1 -v 1000 7
  ```
- Removal of VLAN configuration from a switch.
  ```
  racadm setniccfg -m switch-1 -v
  ```
- Configuration of redundant mode
  ```
  racadm setniccfg -r 1
  ```

setractime

Description

Sets the date and time on the CMC.

To run this subcommand, you must have the Administrator privilege.

Synopsis

- `racadm setractime -d <YYYYMMDDhhmmss.mmmmmmsoff>`
- `racadm setractime -l <YYYYMMDDhhmmss>`
- `racadm setractime -z ?|<timezone>|<timezone-prefix>*`

Input

- `-d` — Sets the time in the string `YYYYMMDDhhmmss.mmmmmmsoff`, where:
  - `YYYY` is the four digit year
  - `MM` is the month
  - `DD` is the day
  - `hh` is the hour
  - `mm` is the minute
  - `ss` is the second
  - `mmmmmm` is the number of microseconds
  - `s` is a + (plus) sign or a – (minus) sign, which indicates the sign of the offset.
  - `off` is the offset in minutes.

  NOTE: The`off` is the offset in minutes from GMT and must be in 15-minute increments. The timezone is represented as an offset from GMT. The clock does not automatically adjust to daylight savings time (for `-d` option).

- `-z <zone>` — Sets the time zone by name or index, or lists possible time zones. For example, PST8PDT (Western United States), 294 (Seoul), 344 (Sydney). `<zone>` may be:
  - `?` lists the major timezone names or prefixes.
  - `<timezone>` is the case-sensitive name of your timezone or the index listed in `-z <timezone_prefix>*`.
  - `<timezone_prefix>*` is a prefix of one or more timezones, followed by '*'.

  NOTE: The timezone or daylight savings time is fully supported for `-l`and `-z` options. To set the timezone only (for example `-z US/Central`), do not specify the `-l` option.

- `-l` — Sets the local date and time in the string `YYYYMMDDhhmmss` where:
  - `YYYY` is the year
  - `MM` is the month
  - `DD` is the day
  - `hh` is the hour
  - `mm` is the minute
  - `ss` is the second

  Setting the time using the `-l` and `-z` options are recommended. This command format allows the CMC to support local time zones. This command includes the ability to automatically adjust the CMC time to the local Daylight Savings Time (DST).

Example

The `setractime` subcommand supports dates ranging from 1/1/1970 00:00:00 through 12/31/2030 23:59:59.

- To set the local time to November 24, 2012 at 3:02:30 pm

```
racadm setractime -l 20121124150230
```

  The time was set successfully
- Set the timezone to 'US/Pacific':

```
racadm setractime -z US/Pacific
```

- List all 'US' time zones:

```
racadm setractime -z US*
```

setslotname

Description

Displays the name and hostname (if available) of all the 16 slots, or of a specified slot (indicated by the slot number) in the chassis. Optionally, this command can be used to set whether the slot name or hostname is displayed in the CMC User Interface or with the `getslotname -i <slotNum>` command. If the hostname is not available, the static slot name is used.

To run this subcommand, you must have the Administrator privilege.

NOTE:

- The special characters " (double quotation mark), ' (backward quotation mark), & (ampersand), , (comma), and \ (backward slash) are not supported for this subcommand.
- The OMSA server agent must be present and running on the server to use the Display Hostname feature. If the agent is not running, the setting is ignored. For more information, see the *Dell OpenManage Server Administrator User's Guide* at **support.dell.com/manuals**.

Synopsis

- `racadm setslotname -i <slotNum> <slotname>`
- `racadm setslotname -h <enabled>`

Input

- `–i <slotNum>` — Displays the location of the slot in the chassis.
  Legal values: 1–16
- `<slotname>` — The new name assigned to the slot.
- `–h <enabled>` — Sets whether the server's hostname is used for display purposes.
  Legal values: 0, 1

Example

- Set slot name for slot 3 to server3:

```
racadm setslotname -i 3 server3
```

  The slot name was set successfully.
- Enable System to Display Hostnames (1 = Active):

```
racadm setslotname -h 1
```

setsysinfo

Description

Sets the name or location of the chassis.

To run this subcommand, you must have the Administrator privilege.

NOTE: The special characters " (double quotation mark), ' (backward quotation mark), & (ampersand), and \ (backward slash) are not supported for this subcommand.

Synopsis

```
racadm setsysinfo -c chassisname|chassislocation <string>
```

Input

- `<string>` — Indicates a maximum of 64 nonextended ASCII chassis name or location.
- `-c` — Sets the chassis name or location.

Example

- `racadm setsysinfo -c chassisname "Dell Rack System"`

  The chassis name was set successfully
- `racadm setsysinfo -c chassislocation chassislocation2`

  Sets Chassis location.

sshpkauth

Description

Enables you to upload and manage up to 4 different SSH public keys for each user. You can upload a key file or key text, view keys, or delete keys.

This command has three mutually exclusive modes determined by the options — `upload`, `view`, and `delete`.

To run this subcommand, you must have Configure user privilege.

NOTE:

- For DSA keys greater than 2048, use the following racadm command:

  ```
  racadm -r 192.168.8.14 -u root -p calvin sshpkauth -i svcacct -k 1 -p 0xfff -f dsa_2048.pub
  ```
- CMC accepts RSA keys up to key strength 4096, but the recommended key strength is 1024.

Synopsis

- `racadm sshpkauth -i svcacct -k <key_index> -p <privilege> -t <PK_key_text>`
- `racadm sshpkauth -i svcacct -k <key_index> -p <privilege> -f <PK_key_text>`
- `racadm sshpkauth -v -i svcacct -k all|<key_index>`
- `racadm sshpkauth -d -i svcacct -k all|<key_index>`

Input

- `-i <user_index>` — Index for the user, it must be svcacct for CMC.
- `-k [<key_index> | all]` — Index to assign the PK key being uploaded. *all* only works with the `-v` or `-d` options. `<key_index>` must be between 1 to 6 or `all` on CMC.
- `-p <privilege>` — Level to give to user for this PK key.
- `-r <cmcIpAddr>` — Specifies the controller's remote IP address.
- `-u <username>` — Specifies the user name.
- `-t <PK_Key_Text>` — Key text for the SSH Public key.
- `-f <filename>` — File containing the key text to upload.

  NOTE: The `-f` option is not supported on Telnet or SSH or serial RACADM.
- `-v` — View the key text for the index provided.
- `-d` — Delete the key for the index provided.

Example

- Upload an invalid key to iDRAC User 2 in the first key space using a string.

```
$ racadm sshpkauth -i 2 -k 1 -t "This is invalid key
Text"

ERROR: Key text appears to be corrupt
```

- Upload a valid key to iDRAC User 2 in the first key space using a file.

```
$ racadm sshpkauth -i 2 -k 1 -f pkkey.key

Key file successfully uploaded.
```

- Get all keys for User 2 on iDRAC.

```
$ racadm sshpkauth -v -i 2 -k all

******************** User ID 2 ******************

Key ID 1:

ssh-rsa    AAAAB3NzaC1yc2EAAAABIwAAAIEAzzy+k2npnKqVEXGXIzo0sbR6JgA5YNbWs3ekoxXV
               fe3yJVpVc/5zrrr7XrwKbJAJTqSw8Dg3iR4n3vUaP+lPHmUv5Mn55Ea6LHUslAXFqXmOdlThd
               wilU2VLw/iRH1ZymUFnut8ggbPQgqV2L8bsUaMqb5PooIIvV6hy4isCNJU=
1024-bit RSA, converted from OpenSSH by xx_xx@xx.xx

Key ID 2:

Key ID 3:

Key ID 4:
```

sslcertdownload

Description

Downloads an SSL certificate from CMC to the client's file system.

To run this subcommand, you must have the **Server Control** privilege.

NOTE: This subcommand is only supported on the remote interface(s).

Synopsis

```
racadm sslcertdownload -f <filename> -t <type>
```

Input

- `-f` — Specifies the target filename on local file system to download the certificate.
- `-t <type>` — Specifies the type of certificate to download, either the CA certificate for Directory Service or the server certificate.
  - `1`=server certificate
  - `2`=Active Directory

Output

Returns 0 when successful and non-zero number when unsuccessful.

Example

- Download server certificate:

```
racadm -r 192.168.0 -u root -p xxx sslcertdownload -t 1 -f cert.txt
```

- Download Active Directory certificate:

```
racadm -r 192.168.0 -u root -p xxx sslcertdownload -t 2 -f ad_cert.txt
```

NOTE: This command is not supported in the firmware RACADM interface as it is not a file system.

sslcertupload

Description

Uploads a custom SSL server or CA certificate for Directory Service from the client to CMC.

To run this subcommand, you must have the **Server Control** privilege.

NOTE: This subcommand is only supported on the remote interfaces.

Synopsis

```
racadm sslcertupload -f <filename> -t <type>
```

Input

- `-t <type>` — Specifies the type of certificate to upload. The type of certificate must be:
  - `1` — server certificate
  - `2` — Active Directory
  - `5` — Kerberos Keytab
  - `6` — Server certificate and key
- `-f` — Specifies the source filename in the local file system of the certificate uploaded.
- `-k` — Specifies optional source filename for private key when using type 6.

Output

```
racadm -r 192.168.0 -u root -p xxx sslcertupload -t 2 -f cert.txt
```

Certificate successfully uploaded to the RAC.

Example

- Uploading a server certificate.

  ```
  racadm -r 192.168.0 -u root -p xxx sslcertupload -t 1 -f cert.txt
  ```

- Upload web server certificate and key

  ```
  racadm -r 192.168.0 -u root -p xxx sslcertupload -t 6 -f cert.txt -k
  key.txt
  ```

- Uploading Active Directory Certificate

  ```
  racadm -r 192.168.0 -u root -p xxx sslcertupload -t 2 -f ad_cert.txt
  ```

sslcertview

Description

Displays the SSL server or CA certificate that exists on CMC.

Synopsis

```
racadm sslcertview -t <type> [-A]
```

Input

- `-t` — Specifies the type of certificate to view, either the CA certificate or server certificate.
  - `1`=server certificate
  - `2`=Active Directory
- `-A` — Prevents printing headers or labels.

NOTE: If a certificate is generated using comma ',' as one of the parameters for the Organization Name, Common Name, Location Name, or State Name, then this command displays the partial name in the respective fields only up to the comma. The rest of the string is not displayed.

NOTE: For self-signed certificate, the common name includes PQDN (Partially qualified domain name) or FQDN (Fully qualified domain name).

Output

```
racadm sslcertview -t 1

Serial Number                                   01

Subject Information:

Country Code (CC)                               US
```

State (S)	Texas
Locality (L)	Round Rock
Organization (O)	Dell Inc.
Organizational Unit (OU)	Remote Access Group
Common Name (CN)	CMC Default certificate
Issuer Information:	
Country Code (CC)	US
State (S)	Texas
Locality (L)	Round Rock
Organization (O)	Dell Inc.
Organizational Unit (OU)	Remote Access Group
Common Name (CN)	CMC Default certificate
Valid From	Jul 7 23:54:19 2011 GMT
Valid To	Jun 4 23:54:19 2021 GMT

```
racadm sslcertview -t 1 -A
```

```
00
US
Texas
Round Rock
Dell Inc.
Remote Access Group
CMC default certificate
US
Texas
Round Rock
Dell Inc.
Remote Access Group
CMC default certificate
Jun 7 23:54:19 2011 GMT
Jun 4 23:54:19 2021 GMT
```

sslcsrgen

Description Generates and downloads a certificate signing request (CSR) file to the client's local file system. The CSR can be used for creating a custom SSL certificate that can be used for SSL transactions on CMC.

To run this subcommand, you must have the Configure chassis administrator privilege.

Synopsis

- `racadm sslcsrgen -g`
- `racadm sslcsrgen [-g] [-f <filename>]`
- `racadm sslcsrgen -s`

Input

- `-g` — Generates a new CSR.
- `-s` — Returns the status of a CSR generation process (generation in progress, active, or none).
- `-f` — Specifies the filename of the location, `<filename>`, where the CSR is downloaded.

NOTE:

- If the `-f` option is not specified, the filename defaults to **sslcsr** in your current directory.
- The `-f` option is only supported on the remote interface(s).

Output

If no options are specified, a CSR is generated and downloaded to the local file system as **sslcsr** by default. The `-g` option cannot be used with the `-s` option, and the `-f` option can only be used with the `-g` option.

The `sslcsrgen -s` subcommand returns one of the following status codes:

- CSR was generated successfully.
- CSR does not exist.

Example

- Display current status of CSR operation:

  ```
  racadm sslcsrgen -s
  ```

  or

  ```
  racadm sslcsrgen -g -f c:\csr\csrtest.txt
  ```

- Generate and download a CSR to local filesystem:

  ```
  racadm -r 192.168.0.120 -u root -p calvin sslcsrgen -g -f csrtest.txt
  ```

NOTE: Before a CSR can be generated, the CSR fields must be configured in the RACADM `config –g cfgracsecurity` group. For example:

```
racadm config -g cfgracsecurity -o cfgRacSecCsrCommonName cmc-effort.cmc.com
```

NOTE: In Telnet or SSH console, you can only generate and not download the CSR file.

sslresetcfg

Description

Restores the web-server certificate to factory default and restarts web-server. The certificate takes effect 30 seconds after the command is entered.

To run this subcommand,you must have the Chassis Configuration Administrator privilege.

Synopsis

```
racadm sslresetcfg
```

Input

N/A

Example

```
racadm sslresetcfg
```

```
Certificate generated successfully and webserver restarted.
```

testemail

Description

Sends a test email from CMC to a specified destination. Prior to running the test email command, make sure that the SMTP server is configured.

The specified index in the **cfgEmailAlert** group must be enabled and configured properly. For more information, see the *Integrated Dell Remote Access Controller (iDRAC8) and iDRAC7 RACADM Command Line Interface Reference Guide* available at **dell.com/support/manuals**.

Synopsis

```
racadm testemail -i <index>
```

Input

`-i <index>` — Specifies the index of the email alert to test.

Output

```
Success: Test e-mail sent successfully
```

```
Failure: Unable to send test e-mail
```

Example

- Send a test email to the destination email address configured for index 1

  ```
  racadm testemail -i 1
  ```

testfeature

Description

Tests CMC feature x.

Synopsis

- `racadm testfeature -f AD -u <user_at_domain> -p <password> [-d <debug_level>]`
- `racadm testfeature -f ADKRB -u <user_at_domain> -p <password> [-d <debug_level>]`
- `racadm testfeature -f LDAP -u <user> -p <password> [-d <debug_level>]`

Input

- `-f <feature>` — options are:
  - `AD` — Test AD using simple authentication
  - `ADKRB` — Test AD using Kerberos authentication
  - `LDAP` — Test Generic LDAP
- `-u <user>`— On the basis of a feature, `<user>` is user or user_at_domain.
- `-p <password>` — Password for the user.
- `-d <debug_level>` — The following bitmask:
  - `0x00` — quiet
  - `0x01` — verbose
  - `0x02` — debug
  - `0x04` — info
  - `0x08` — warning
  - `0x10` — errors
  - `0x20` — fatal
  - `0x40` — checks
  - `0xff` — all debug information
  - `0xd0` — default debug level for `AD` and `ADKRB`.
  - `0xf0` and `0xf2` — default debug level for `LDAP`.

NOTE: `-d` option is only supported on the firmware interface or firmware interfaces.

Example

- To test `AD`.

  ```
  racadm testfeature -f AD -u joe@dell.com -p dell123
  ```

- To test `ADKRB:`.

  ```
  racadm testfeature -f ADKRB -u joe@dell.com
  ```

- To test LDAP.

```
racadm testfeature -f LDAP -u joe -p dell123 -d 0xf2
```

testtrap

Description Tests the RAC's SNMP trap alerting feature by sending a test trap from CMC to a specified destination trap listener on the network.

To run this subcommand, you must have the **Test Alert** permission.

NOTE: Before you run the `testtrap` subcommand, make sure that the specified index in the cfgAlerting group is configured properly.

Synopsis

```
racadm testtrap -i <index>
```

Input `-i <index>` — Specifies the index of the trap configuration that must be used for the test. Valid values are from 1 to 4.

Example

- Send a test trap to the destination configured for index 1:

```
racadm testtrap -i 1
```

traceroute

Description Traces network path of the routers as the packets traverse from the system to a destination IPv4 address.

To run this subcommand, you must have the Administrator privilege.

Synopsis

```
racadm traceroute <IPv4 address>
```

Input `IPv4` — Specifies IPv4 address.

Output

```
traceroute to 192.168.0.1 (192.168.0.1), 30 hops max, 40 byte packets
1 192.168.0.1 (192.168.0.1) 0.801 ms 0.246 ms 0.253 ms
```

traceroute6

Description Traces the network path of routers as the packets traverse from the system to a destination IPv6 address.

To run this subcommand, you must have the Administrator privilege.

Synopsis

```
racadm traceroute6 <IPv6address>
```

Input <IPv6address> – Specifies IPv6 address.

Output

```
traceroute to fd01::1 (fd01::1) from fd01::3,
30 hops max, 16 byte packets
1 fd01::1 (fd01::1) 14.324 ms 0.26 ms 0.244 ms
```

3

CMC Property Database Group and Object Descriptions

CMC property database contains the configuration information. Associated object is organizing data, and object group is organizing object. The IDs for the groups and objects that the property database supports are listed in this section.

To configure CMC, use the group and object IDs with the RACADM subcommands.

NOTE: You can configure a setting that does not have a hash symbol (#) as the prefix in its output name. To modify a configurable object, use the -o option.

NOTE: Racadm sets the value of objects without performing any functional validation on them. For example, RACADM allows you to set the Certificate Validation object to 1 with the Active Directory object set to 0, even though Certificate Validation can happen only if Active Directory is enabled. Similarly, the cfgADSSOEnable object can be set to 0 or 1 even if the cfgADEnable object is 0, but it takes effect only if Active Directory is enabled.

All string values are limited to displayable ASCII characters, except where otherwise noted.

Displayable Characters

Displayable characters include the following set:

```
abcdefghijklmnopqrstuvwxwz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

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

The following table provides an overview of the object groups.

Subcommand	CMC
idRacInfo	Yes
cfgLanNetworking	Yes
cfgRemoteHosts	Yes
cfgUserAdmin	Yes
cfgEmailAlert	Yes
cfgSessionManagement	Yes
cfgSerial	Yes
cfgOobSnmp	Yes
cfgTraps	Yes

Subcommand	CMC
cfgRacTuning	Yes
cfgServerInfo	Yes
cfgActiveDirectory	Yes
cfgStandardSchema	Yes
cfgLDAP	Yes
cfgLdapRoleGroup	Yes
cfgLocation	Yes
cfgChassisPower	Yes
cfgThermal	Yes
cfgKVMInfo	Yes
cfgAlerting	Yes
cfgLcdInfo	Yes
cfgIPv6LanNetworking	Yes
cfgCurrentLanNetworking	Yes
cfgCurrentIPv6LanNetworking	Yes
cfgNetTuning	Yes
cfgRacSecurity	Yes

idRacInfo

This group contains display parameters to provide information about the specifics of CMC being queried. One instance of the group is allowed. Use this object with the **getconfig** subcommand.

To use this object, you must have the CMC Login User privilege.

The following sections provide information about the objects in the **idRACInfo** group.

idRacProductInfo (Read Only)

Description A text string that identifies the product.

Legal Values A string of up to 63 ASCII characters.

Default Chassis Management Controller

idRacDescriptionInfo (Read Only)

Description	A text description of the RAC type.
Legal Values	A string of up to 255 ASCII characters.
Default	This system component provides a complete set of remote management functions for **Dell PowerEdge** servers.

idRacVersionInfo (Read Only)

Description	String containing the current product firmware version
Legal Values	A string of up to 63 ASCII characters.
Default	The current version number.

idRacBuildInfo (Read Only)

Description	String containing the current RAC firmware build version.
Legal Values	A string of up to 16 ASCII characters.
Default	The current CMC firmware build version.

idRacName (Read Only)

Description	A user-assigned name to identify this controller.
Legal Values	A string of up to 15 ASCII characters.
Default	CMC

iDRAC Type (Read Only)

Description	Identifies the remote access controller type.
Legal Values	Product ID
Default	9

Example

```
racadm getconfig -g idRacInfo
```

```
# idRacType=8
# idRacProductInfo=Chassis Management Controller
# idRacDescriptionInfo=This system component provides a complete
set of remote management functions for blade servers
# idRacVersionInfo=P21
```

```
# idRacBuildInfo=200708301525
# idRacName=CMC-1
```

```
racadm getconfig -g idRacInfo
```

```
# idRacType=16
# idRacProductInfo=Integrated Dell Remote Access Controller
# idRacDescriptionInfo=This system component provides a complete set of remote management
functions for Dell PowerEdge Servers
# idRacVersionInfo=1.06.06
# idRacBuildInfo=15
# idRacName=idrac-GSRS3V1
```

cfgLanNetworking

This group contains parameters to configure CMC NIC for IPv4.

One instance of the group is allowed. Some objects in this group may require CMC NIC to be reset, which may cause a brief loss in connectivity. Objects that change CMC 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 sections provide information about the objects in the **cfgLanNetworking** group.

cfgNicIPv4Enable (Read or Write)

Description Enables or disables IPv4 stack.

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

Default 0

cfgNicVLanEnable (Read or Write)

Description Enables or disables the VLAN capabilities.

All chassis management traffic, including the CMC and all iDRACs, resides on this external VLAN when enabled. No iDRAC configuration change is required to use this external management network VLAN.

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

Default 0

Example

```
racadm config -g cfgLanNetworking -o cfgNicVLanEnable
1
```

```
racadm config -g cfgLanNetworking -o cfgNicVLanEnable
0
```

cfgNicVLanID (Read or Write)

Description Specifies the VLAN ID for the network VLAN configuration. This property is only valid if `cfgNicVLanEnable` is set to `1 (enabled)`.

Legal Values 1–4000 and 4021–4094

Default 1

Example

```
racadm config -g cfgLanNetworking -o cfgNicVlanID
1
```

cfgNicVLanPriority (Read or Write)

Description Specifies the VLAN Priority for the network VLAN configuration. This property is only valid if `cfgNicVLanEnable` is set to `1` (enabled).

Legal Values 0–7

Default 0

Example

```
racadm config -g cfgLanNetworking -o
cfgNicVLanPriority 7
```

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 CMC 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 CMC 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 CMC, otherwise the domain name becomes unpredictable.

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

cfgDNSRacName (Read or Write)

Description Displays the CMC 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>

cfgDNSRegisterRac (Read or Write)

Description Registers the iDRAC or CMC name on the DNS server. When you set this parameter, the CMC 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
cfgNicEnable=1
cfgNicIPv4Enable=1
cfgNicIpAddress=192.168.22.101
cfgNicNetmask=255.255.255.0
cfgNicGateway=192.168.22.101
cfgNicUseDhcp=1
# cfgNicMacAddress=00:00:00:00:00:01
cfgNicVLanEnable=0
cfgNicVLanID=1
cfgNicVLanPriority=0
cfgDNSServersFromDHCP=1
cfgDNSServer1=192.168.0.5
cfgDNSServer2=192.168.0.6
cfgDNSRacName=cmc-frankly
cfgDNSDomainName=fwad.lab
cfgDNSDomainNameFromDHCP=1
cfgDNSRegisterRac=1
```

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

cfgNicEnable (Read or Write)

Description Enables or disables CMC network interface controller (NIC). If the NIC is disabled, the remote network interfaces to CMC are no longer accessible and CMC is only available through the local or serial RACADM interface.

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

Default 1

cfgNicIpAddress (Read or Write)

Description Specifies the static IPv4 address.

NOTE: This parameter is only configurable if the `cfgNicUseDhcp` parameter is set to `0`(FALSE).

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

Default
- `192.168.0.120`

cfgNicNetmask (Read or Write)

Description The subnet mask used for IP address.

This property is only valid if `cfgNicUseDhcp` is set to`0`(FALSE).

NOTE: This parameter is only configurable if the `cfgNicUseDhcp` parameter is set to `0`(FALSE).

Legal Values String representing a valid subnet mask. For example: `255.255.255.0`.

Default `255.255.255.0`

cfgNicGateway (Read or Write)

Description Indicates the gateway IPv4 address.

The gateway IPv4 address used for static assignment of the RAC IP address. This property is only valid if `cfgNicUseDhcp` is set to`0`(FALSE).

NOTE: This parameter is only configurable if the `cfgNicUseDhcp` parameter is set to `0` (FALSE).

Legal Values String representing a valid gateway IPv4 address. For example: `192.168.0.1`.

Default `192.168.0.1`

cfgNicUseDhcp (Read or Write)

Description Specifies whether DHCP is used to assign the IPv4 address. If this property is set to `1` (TRUE) then the IPv4 address, subnet mask and gateway are assigned from the DHCP server on the network. If this property is set to `0`(FALSE), the user can configure the `cfgNicIpAddress`, `cfgNicNetmask` and `cfgNicGateway` properties.

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

Default 0

cfgNicMacAddress (Read Only)

Description The NIC MAC address in the format: dd:dd:dd:dd:dd:dd, where d is a hexadecimal digit in range 0 – 9, A — F

Legal Values String representing NIC MAC address.

Default The current MAC address of NIC. For example, `00:12:67:52:51:A3`.

cfgRemoteHosts

This group provides properties that allow configuration of the SMTP server for email alerts.

This group enables/disables and configures firmware updates, NTP, remote syslogging and SMTP email alerting.

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

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

The following sections provide information about the objects in the **cfgRemoteHosts** group.

cfgRhostsFwUpdateTftpEnable (Read or Write)

Description Enables or disables firmware update from a network TFTP server.

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

Default 1

cfgRhostsFwUpdateIpAddr (Read or Write)

Description Specifies the network TFTP server IPv4 or IPv6 address that is used for TFTP firmware update operations.

Legal Values A string representing a valid IPv4 or IPv6 address. For example, `192.168.0.61`

Default For IPv4, it is `0.0.0.0`

cfgRhostsFwUpdatePath (Read or Write)

Description Specifies TFTP path where firmware image file exists on the TFTP server. The TFTP path is relative to the TFTP root path on the TFTP server.

NOTE: The server may still require you to specify the drive (for example, C:).

Legal Values A string with a maximum length of 255 ASCII characters.

Default `<blank>`

cfgRhostsSmtpServerIpAddr (Read or Write)

Description The IPv4 or IPv6 address of the network SMTP server.

The SMTP server transmits email alerts from CMC if the alerts are configured and enabled.

Legal Values A string representing a valid SMTP server IPv4 or IPv6 address. For example: `192.168.0.`.

Default localhost.localdomain

cfgRhostsNtpEnable (Read or Write)

Description	Enables or disables the use of the Network Time Protocol (NTP) for date and time synchronization.
Legal Values	• 1 — True • 0 — False
Default	0

cfgRhostsNtpServer1 (Read or Write)

Description	Specifies the first of three possible NTP servers.
Legal Values	A string representing a valid NTP server. For example, ntp1.ntp.net. At least one NTP server must be specified and duplicate entries are not allowed.
Default	Null

cfgRhostsNtpServer2 (Read or Write)

Description	Specifies the second of three possible NTP servers.
Legal Values	A string representing a valid NTP server. For example, ntp2.ntp.net. At least one NTP server must be specified and duplicate entries are not allowed.
Default	Null

cfgRhostsNtpServer3 (Read or Write)

Description	Specifies the third of three possible NTP servers.
Legal Values	A string representing a valid NTP server. For example, `ntp3.ntp.net`. At least one NTP server must be specified and duplicate entries are not allowed.
Default	Null

cfgRhostsNtpMaxDist (Read or Write)

Description	Specifies the NTP maximum distance parameter used to aid in NTP configuration.
Legal Values	1–128
Default	16

cfgRhostsSyslogEnable (Read or Write)

Description	To allow the RAC and SEL logs to be written to up to three remote syslog servers Enables or disables remote syslog.
Legal Values	• 1 (TRUE) • 0 (FALSE)
Default	0

cfgRhostsSyslogPort (Read or Write)

Description Remote syslog port number to use for writing the RAC and SEL logs to a remote syslog server.
This setting takes effect only if the `cfgRhostsSyslogEnable` parameter is set to `1`(enabled).

Legal Values 10–65535

NOTE: The following port numbers are reserved and cannot be used: 21, 68, 69, 123, 161, 546, 801, 4096, 5988, 5989, 6900, 9000, 60106.

Default 514

cfgRhostsSyslogServer1 (Read or Write)

Description To store the RAC and SEL logs specify the first of three possible remote syslog servers. This property is only valid if `cfgRhostsSyslogEnable` is set to `1` (enabled).

Legal Values Valid host name or IPv4 or IPv6 address.

Default `<blank>`

cfgRhostsSyslogServer2 (Read or Write)

Description To store the RAC and SEL logs Specify the second of three possible remote syslog servers. This property is only valid if `cfgRhostsSyslogEnable` is set to `1` (enabled).

Legal Values Valid host name or IPv4 or IPv6 address.

Default `<blank>`

cfgRhostsSyslogServer3 (Read or Write)

Description To store the RAC and SEL logs specify the third of three possible remote syslog servers. This property is only valid if `cfgRhostsSyslogEnable` is set to `1`(enabled).

Legal Values Valid host name or IPv4 or IPv6 address.

Default `<blank>`

cfgRhostsSyslogPowerLoggingEnabled (Read or Write)

Description To remote syslog servers, Enables or disables power consumption logging.

NOTE: Remote syslog must be enabled and more than one remote syslog servers must be configured to log the power consumption.

Legal Values
- `1` — Enabled
- `0` — Disabled

Default 0

cfgRhostsSyslogPowerLoggingInterval (Read or Write)

Description	Specifies the power consumption collection/logging interval.
Legal Values	1–1440 (minutes)
Default	5

Example

```
racadm getconfig -g cfgRemoteHosts [-m server-<n>]
```

```
cfgRhostsFwUpdateTftpEnable=1
cfgRhostsFwUpdateIpAddr=0.0.0.0
cfgRhostsFwUpdatePath=
cfgRhostsSmtpServerIpAddr=localhost.localdomain
cfgRhostsNtpEnable=0
cfgRhostsNtpServer1=
cfgRhostsNtpServer2=
cfgRhostsNtpServer3=
cfgRhostsNtpMaxDist=16
cfgRhostsSyslogEnable=0
cfgRhostsSyslogPort=514
cfgRhostsSyslogServer1=
cfgRhostsSyslogServer2=
cfgRhostsSyslogServer3=cfgRhostsSyslogPowerLoggingEnabled=1
cfgRhostsSyslogPowerLoggingInterval=5
```

cfgUserAdmin

This group provides configuration information about the users allowed to access CMC through the available remote interfaces.

Up to 16 instances of the user group are allowed. Each instance represents the configuration for an individual user.

NOTE: In the current CMC 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.

The following sections provide information about the objects in the **cfgUserAdmin** group.

cfgUserAdminIndex (Read Only)

Description	The unique index of a user. The index number is used to specify a unique group name. Only valid for indexed groups.
Legal Values	The parameter specifies decimal integer 1–16.
Default	`<index of the instance>`

cfgUserAdminPrivilege (Read or Write)

Description	This property specifies the role-based authority privileges allowed for the user. The value is represented as a bit mask that allows for any combination of privilege values. The table below describes the user privilege bit values that can be combined to create bit masks.
Legal Values	0x0000000-0x0000fff, and 0x0
Default	0x00000000

Example

```
racadm getconfig -g cfgUserAdmin -i 1
```

```
# cfgUserAdminIndex=1
cfgUserAdminEnable=1
cfgUserAdminUserName=root
# cfgUserAdminPassword=******** (Write-Only)
cfgUserAdminPrivilege=0x00000fff
```

The following table lists the bit masks for user privileges.

iDRAC Specific User Privilege	Privilege Bit Mask
Log in to iDRAC	0x00000001
Configure iDRAC	0x00000002
Configure Users	0x00000004
Clear Logs	0x00000008
Execute Server Control Commands	0x00000010
Access Virtual Console	0x00000020
Access Virtual Media	0x00000040
Test Alerts	0x00000080
Execute Debug Commands	0x00000100
CMC Specific User Privilege	
CMC Login User	0x0000001
Chassis Configuration Administrator	0x0000002

User Configuration Administrator	0x0000004
Clear Logs Administrator	0x0000008
Chassis Control Administrator	0x0000010
Super User	0x0000020
Server Administrator	0x0000040
Test Alert User	0x0000080
Debug Command Administrator	0x0000100
Fabric A Administrator	0x0000200
Fabric B Administrator	0x0000400
Fabric C Administrator	0x0000800

Examples

The following table provides sample privilege bit masks for users with one or more privileges.

User Privileges	Privilege Bit Mask
The user is not allowed to access iDRAC or CMC	0x00000000
The user may only log in to iDRAC or CMC and view iDRAC or CMC and server configuration information.	0x00000001
The user may log in to iDRAC or CMC and change configuration.	0x00000001 + 0x00000002 = 0x00000003
The user may log in to iDRAC, access Virtual Media, and Virtual Console.	0x00000001 + 0x00000040 + 0x00000080 = 0x000000C1

cfgUserAdminUserName (Read or Write)

Description The name of the user for this index. Writing a string of double quotation mark (" ") disables the user. The string cannot contain / (forward slash), \ (backward slash), . (period), @ (at symbol), quotation marks, ; (semicolon), or ‘ (backward quotation mark).

NOTE: This property value must be unique among user names.

Legal Values A string of up to 16 ASCII characters.

Default
- `root` (User 2)
- `<blank>` (All others)

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 `********`

cfgUserAdminEnable (Read or Write)

Description Enables or disables an individual user.

NOTE: You can enable a user for a given index, only if you set the password for the same user.

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

Default `0`

cfgEmailAlert

This group contains parameters to configure CMC email alerting capabilities. Up to four instances of this group are allowed.

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

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

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.

The following sections provide information about the objects in the **cfgEmailAlert** group.

cfgEmailAlertIndex (Read Only)

Description The unique index of an alert instance.

Legal Values 1–4

Default `<instance>`

cfgEmailAlertEnable (Read or Write)

Description	Enables or disables the alert instance.
Legal Values	• 1 (TRUE) • 0 (FALSE)
Default	0

cfgEmailAlertAddress (Read or Write)

Description	Specifies the destination email address for email alerts, for example, `user1@company.com`.
Legal Values	Email address format, with a maximum length of 64 ASCII characters.
Default	`<blank>`

cfgEmailAlertEmailName (Read Only)

Description	Specifies name or other identifier associated with the destination email address. The email name can refer to an individual, group, location, department, and so on. This object property is specific to CMC.
Legal Values	A string of up to 32 characters
Default	`<blank>`

Example

```
racadm getconfig -g cfgEmailAlert -i 2
```

```
# cfgEmailAlertIndex=1
cfgEmailAlertEnable=1
cfgEmailAlertAddress=kfulton@dell.com
cfgEmailAlertName=Kevin Fulton
```

cfgSessionManagement

This group contains parameters to configure the number of sessions that can connect to iDRAC or CMC. One instance of the group is allowed. Displays current settings for and configures the idle timeout properties for web server, Telnet, SSH and RACADM sessions. Changes to idle time out settings take effect at the next login. To disable the idle time out property for a connection, set this property to 0.

The following sections provide information about the objects in the **cfgSessionManagement** group.

cfgSsnMgtRacadmTimeout (Read or Write)

Description	Defines the `idle` timeout in seconds for the Remote RACADM interface. If a remote RACADM session remains inactive for more than the specified sessions, the session closes.
Legal Values	10–1920
Default	`30 minutes`

Example

```
racadm getconfig -g cfgSessionManagement cfgSsnMgtWebserverTimeout=0
cfgSsnMgtTelnetIdleTimeout=0
cfgSsnMgtSshIdleTimeout=1800
cfgSsnMgtRacadmTimeout=0
```

cfgSsnMgtWebserverTimeout (Read or Write)

Description Defines the web server time-out. This property sets the amount of time (in seconds) that a connection is allowed to remain idle (there is no user input). The session is canceled if the time limit exceeds this property. Changes to this setting do not affect the current session. Log out and log in again to make the new settings effective.

An expired web server session logs out the current session.

Legal Values 60–10800

Default 1800

cfgSsnMgtSshIdleTimeout (Read or Write)

Description Defines the secure shell idle time-out. This property sets the amount of time (in seconds) that a connection is allowed to remain idle (there is no user input). The session is canceled if the time limit exceeds this property. Changes to this setting do not affect the current session; log out and log in again to make the new settings effective.

After the message is displayed, the system returns to the shell that generated the Secure Shell session.

Legal Values

- 0 —(No timeout)
- 60–10800

NOTE: If 0 (no timeout), the network connection does not send alive packets to probe the client. Otherwise, keep alive packets are sent to guarantee that the client is responding.

Default 1800

cfgSsnMgtTelnetIdleTimeout (Read or Write)

Description Defines the Telnet idle timeout. This property sets the amount of time in seconds that a connection is allowed to remain idle (there is no user input). The session is canceled if the time limit exceeds this property. Changes to this setting do not affect the current session (you must log out and log in again to make the new settings effective.)

After the message is displayed, the system returns you to the shell that generated the Telnet session.

Default 1800

cfgSerial

This group contains configuration parameters for the serial configuration. One instance of the group is allowed.

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

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

The following sections provide information about the objects in the **cfgSerial** group.

cfgSerialBaudRate (Read or Write)

Description Sets the baud rate on the serial port.

Legal Values 2400, 4800, 9600, 19200, 28800, 38400, 57600,115200

Default 115200

cfgSerialConsoleEnable (Read or Write)

Description Enables or disables the serial console interface.

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

Default `1`

cfgSerialConsoleQuitKey (Read or Write)

Description This key or key combination terminates the Virtual Console text for CMC .

Legal value: String of up to 4 characters

This key specifies the character that ends the serial text console connect (or `racadm connect`) command.

NOTE: The CTRL key is represented by using the ^ (carat) character.

NOTE: The CTRL key does not generate a character by itself, but must be struck simultaneously with another key to generate a character.

For example, striking both the CTRL key and the \ key simultaneously (rather than sequentially) is denoted as ^ \.

Configuration options: The value must start with the ^ character, and must follow one of the characters — a-z, A-Z, [,], \

Default: ^\

NOTE: For more information about running the RACADM commands for special characters, see Guidelines to Quote Strings Containing Special Characters.

cfgSerialConsoleIdleTimeout (Read or Write)

Description The maximum number of seconds to wait before an idle serial session is disconnected.

Legal Values
- `0` = No timeout
- 60–1920

Default 1800

cfgSerialConsoleNoAuth (Read or Write)

Description Enables or disables the serial console login authentication.

Legal Values
- 0 — (enables serial login authentication)
- 1 — (disables serial login authentication)

Default 0

cfgSerialConsoleCommand (Read or Write)

Description Specifies a serial command that is executed after a user logs in to the serial console interface.

Legal Values A string representing a valid serial command. For example, connect server-1.

Default <blank>

cfgSerialConsoleColumns (Read or Write)

Description Specifies the number of columns in the terminal window command line connected to the serial port. To take effect logout, and then log in again for the changes.

NOTE: The prompt counts as two characters.

NOTE: The terminal emulator must be configured with the line wrap mode ON, if a terminal emulator is used.

Legal Values 0–256

Default 0 (equivalent to 80)

cfgSerialHistorySize (Read or Write)

Description Specifies the maximum size of the serial history buffer.

Legal Values 0–8192

Default 8192

cfgSerialSshEnable (Read or Write)

Description Enables or disables the secure shell (SSH) interface.

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

Default 1

Example

```
racadm getconfig -g cfgSerial
```

```
cfgSerialBaudRate=115200
cfgSerialConsoleEnable=1
cfgSerialConsoleQuitKey=^\
```

```
cfgSerialConsoleIdleTimeout=1800
cfgSerialConsoleNoAuth=0
cfgSerialConsoleCommand=
cfgSerialConsoleColumns=0
cfgSerialHistorySize=8192
cfgSerialTelnetEnable=0
cfgSerialSshEnable=1
```

cfgSerialTelnetEnable (Read or Write)

Description	Enables or disables the Telnet console interface.
Legal Values	• 1 (TRUE) • 0 (FALSE)
Default	0

cfgOobSnmp

This group contains parameters to configure the SNMP agent and trap capabilities of CMC. One instance of the group is allowed.

The CMC SNMP agent supports the standard RFC1213 mib-2 and the Dell enterprise-specific the MIB.

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

The following sections provide information about the objects in the **cfgOobSnmp** group.

cfgOobSnmpAgentCommunity (Read or Write)

Description	Specifies the SNMP Community Name used for SNMP traps. The community string acts as a password shared between different hosts over the network. This community string value must match with the other hosts for any kind of communication through SNMP.
Legal Values	A string of up to 31 characters.
Default	public

Example

```
racadm getconfig -g cfgOobSnmp
```

```
cfgOobSnmpTrapsEnable=1
cfgOobSnmpAgentCommunity=public
```

cfgOobSnmpAgentEnable (Read or Write)

Description	Enables or disables the SNMP agent in CMC.
Legal Values	• 1 (TRUE) • 0 (FALSE)
Default	0

cfgTraps

This group displays information for and configures delivery of SNMP traps for a specific user.

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

cfgTrapsIndex (Read Only)

Description	Indicates the unique index of an alert instance.
Legal Values	1–4
Default	1

cfgTrapsEnable (Read or Write)

Description	Enables or disables event traps on the CMC.
Legal Values	• 1 (TRUE) • 0 (FALSE)
Default	None

cfgTrapsAlertDestIPAddr (Read or Write)

Description	Sets the IP address that receives the alert.
Legal Values	A string representing a valid IP address. For example, 192.168.0.20.
Default	None

cfgTrapsCommunityName (Read or Write)

Description	Sets the community string (identical to the community name) used for authentication. The community string acts as a password shared between different hosts over the network. This community string value must match with the other hosts for any kind of communication through SNMP.
Legal Values	A string representing the community name.
Default	None

Example

```
racadm getconfig -g cfgTraps -i 2
```

```
# cfgTrapsIndex=2
cfgTrapsEnable=1
cfgTrapsAlertDestIpAddr=
cfgTrapsCommunityName=public
```

cfgRacTuning

This group is used to configure various configuration properties, such as valid ports and security port restrictions.

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

The following sections provide information about the objects in the **cfgRacTuning** group.

NOTE: Only the following objects are displayed, if –m option is used:

- `cfgRacTuneWebserverEnable`
- `cfgRacTuneHttpPort`
- `cfgRacTuneHttpsPort`
- `cfgRacTuneTelnetPort`
- `cfgRacTuneSshPort`

cfgRacTuneRemoteRacadmEnable (Read or Write)

Description	Enables or disables the Remote RACADM interface.
Legal Values	• `1` (TRUE) • `0` (FALSE)
Default	1

cfgRacTuneIdracDNSLaunchEnable (Read or Write)

Description	Configure iDRAC or CMC GUI launch using IP or DNS.
Legal Values	• `1` — Enabled (launch iDRAC or CMC using DNS name) • `0` — Disabled (launch iDRAC or CMC using IP address)
Default	`0` — Disabled

cfgRacTuneEnhancedLog (Read or Write)

Description	Enables or disables the enhanced chassis log feature.
Legal Values	• 1 — Enable • 0 — Disable
Default	0

cfgRacTuneHttpPort (Read or Write)

Description To use HTTP network communication, specify the port number.

Legal Values 10–65535

NOTE: The following port numbers are reserved and cannot be used: 21, 68, 69, 111, 123, 161, 546, 801, 4096, 5988, 5989, 6900, 9000, and 60106.

Default 80

cfgRacTuneHttpsPort (Read or Write)

Description To use HTTPS network communication, specify the port number.

Legal Values 10–65535

NOTE: The following port numbers are reserved and cannot be used: 21, 68, 69, 111, 123, 161, 546, 801, 4096, 5988, 5989, 6900, 9000, and 60106.

Default 443

cfgRacTuneIpRangeEnable (Read or Write)

Description Enables or disables the IPv4 Address Range validation feature.

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

Default 0

cfgRacTuneIpRangeAddr (Read or Write)

Description Specifies the acceptable IPv4 address bit pattern in the positions of the "1"s in the range mask property (`cfgRacTuneIpRangeMask`).

Alogin from the incoming IP address is allowed only if the following are identical:

- `cfgRacTuneIpRangeMask` bit-wise and with incoming IP address
- `cfgRacTuneIpRanbeMask` bit-wise and with `cfgRacTuneIpRangeAddr`

Legal Values An IPv4 address formatted string, for example, `192.168.0`.

Default 192.168.0

cfgRacTuneIpRangeMask (Read or Write)

Description Standard IP mask values with left-justified bits. For example, `255.255.255.0`.

Login from the incoming IP address is allowed only if both of the following are identical:

- `cfgRacTuneIpRangeMask` bit-wise and with incoming IP address

- `cfgRacTuneIpRanbeMask` bit-wise and with `cfgRacTuneIpRangeAddr`

Legal Values An IPv4 address formatted string, for example, `255.255.255.0`.

Default 255.255.255.0

cfgRacTuneIpBlkEnable (Read or Write)

Description Enables or disables the IPv4 address blocking feature.

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

Default 0

cfgRacTuneIpBlkFailCount (Read or Write)

Description The maximum number of logins that is not successful, to occur within the window (`cfgRacTuneIpBlkFailWindow`) before log in attempt from the IP address is rejected.

Legal Values 3–16

Default 5

cfgRacTuneIpBlkFailWindow (Read or Write)

Description Defines the time span in seconds that the unsuccessful attempts are counted. When unsuccessful attempts age beyond this limit, they are dropped from the count.

Legal Values 2–655356

Default 60

cfgRacTuneIpBlkPenaltyTime (Read or Write)

Description Defines the time span in seconds that session requests from an IP address with excessive failures are rejected.

Legal Values 2–655356

Default 300

cfgRacTuneDefCredentialWarningEnable (Read or Write)

Description Displays warning during login if the default credentials warning property is set.

NOTE: Warning is displayed only with configure the user privilege.

Legal Values
- `1` — Enabled
- `0` — Disabled

Default `1` — Enabled

cfgRacTuneUserBlkEnable (Read or Write)

Description Blocks the login for maximum of 5 minutes after 5 unsuccessful login attempts. The login using any interface such as **WSMAN** or **GUI** is blocked after 5 unsuccessful attempts

NOTE: This is applicable only to configure the user privilege.

Legal Values
- 1 — Enabled
- 0 — Disabled

Default 0 — Disabled

cfgRacTuneSshPort (Read or Write)

Description Specifies the port number used for the SSH interface.

NOTE: The following port numbers are reserved and cannot be used: 21, 68, 69, 111, 123, 161, 546, 801, 4096, 5988, 5989, 6900, 9000, and 60106.

Legal Values 10–65535

Default 22

cfgRacTuneTelnetPort (Read or Write)

Description Specifies the port number used for the Telnet interface.

NOTE: The following port numbers are reserved and cannot be used: 21, 68, 69, 111, 123, 161, 546, 801, 4096, 5988, 5989, 6900, 9000, and 60106.

Legal Values 10–65535

Default 23

cfgRacTuneDaylightOffset (Read Only)

Description Specifies the daylight savings offset (in minutes) to use for the RAC Time. This value is 0 if the time zone is not a Daylight Saving time zone.

Legal Values 0–60

Default 0

Example

```
racadm getconfig -g cfgRacTuning [-m server-<n>] -o
<
object name
> <
object value
>
```

```
cfgRacTuneRemoteRacadmEnable=1
cfgRacTuneWebserverEnable=1
cfgRacTuneHttpPort=80
cfgRacTuneHttpsPort=443
cfgRacTuneTelnetPort=23
```

```
cfgRacTuneSshPort=22
cfgRacTuneIpRangeEnable=0
cfgRacTuneIpRangeAddr=192.168.1.1
cfgRacTuneIpRangeMask=255.255.255.0
cfgRacTuneIpBlkEnable=0
cfgRacTuneIpBlkFailCount=5
cfgRacTuneIpBlkFailWindow=60
cfgRacTuneIpBlkPenaltyTime=300
# cfgRacTuneTimezoneOffset=-18000
# cfgRacTuneDaylightOffset=3600
```

cfgRacTuneTimezoneOffset (Read Only)

Description	This object property is read only. Specifies the difference in number of seconds, from the UTC/GMT. This value is negative if the current time zone is west of Greenwich.
Legal Values	None
Default	0

Example

```
racadm getconfig -g cfgRacTuning
```

```
cfgRacTuneRemoteRacadmEnable=1
cfgRacTuneWebserverEnable=1
cfgRacTuneHttpPort=80
cfgRacTuneHttpsPort=443
cfgRacTuneTelnetPort=23
cfgRacTuneSshPort=22
cfgRacTuneIpRangeEnable=0
cfgRacTuneIpRangeAddr=192.168.1.1
cfgRacTuneIpRangeMask=255.255.255.0
cfgRacTuneIpBlkEnable=0
cfgRacTuneIpBlkFailCount=5
cfgRacTuneIpBlkFailWindow=60
cfgRacTuneIpBlkPenaltyTime=300# cfgRacTuneTimezoneOffset=-18000#
cfgRacTuneDaylightOffset=3600
```

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

cfgServerInfo

This group allows you to display and configure a server in the chassis.

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 does not have the hash sign (#) prefixed in the output. To modify a configurable object, use the —o option

The following sections provide information about the objects in the `cfgServerInfo`.

cfgServerInfoIndex (Read Only)

Description	Displays the index name of the server.
Legal Values	None
Default	None

cfgServerSlotNumber (Read Only)

Description	Specifies the location of the specified server (1–16) in the chassis. Specify '-i nx' for HiFi blade information, where index-1 is a multi server sleeve. For example, -i 1a
Legal Values	None
Default	None

cfgServerServiceTag (Read Only)

Description	Displays the service tag of the specified server.
Legal Values	None
Default	None

cfgServerName (Read Or Write)

Description	Displays the name of the specified server.
Legal Values	Maximum of 15 non-extended (ASCII characters (ASCII codes 32 through 126). For more information, see Guidelines to Quote Strings Containing Special Characters.
Default	SLOT — `<slot number>`

cfgServerFW (Read Only)

Description	Displays the server's iDRAC firmware revision.
Legal Values	None
Default	None

cfgServerBIOS (Read Only)

Description	Displays the server's BIOS revision.
Legal Values	None
Default	None

cfgServerBmcMacAddress (Read Only)

Description	Displays the BMC MAC address of the specified server.
Legal Values	None
Default	None

cfgServerNic1MacAddress (Read Only)

Description	Displays the MAC address of the server NIC 1.
Legal Values	None
Default	None

cfgServerNic2MacAddress (Read Only)

Description	Displays the MAC address of the server NIC 2.
Legal Values	None
Default	None

cfgServerPriority (Read or Write)

Description	Sets the priority level allotted to the server in the chassis for power budgeting purposes.
Legal Values	1–9 in descending priority, where 1 holds the highest priority
Default	1

cfgServerNicEnable (Read or Write)

Description	Enables or disables LAN channel.
Legal Values	• 1 — Enable • 0 — Disable
Default	None

cfgServerIPMIOverLanEnable (Read or Write)

Description	Enables or disables IPMI LAN channel.
Legal Values	• 1 — Enable • 0 — Disable
Default	None

cfgServerPowerBudgetAllocation (Read Only)

Description	Displays the current power allocation for the server.
Legal Values	None
Default	None

cfgServerDNSRegisterIMC (Read or Write)

Description	Enables or disables DNS name registration for iDRAC or IMC .
Legal Values	• 1 — Enable • 0 — Disable
Default	None

cfgServerDNSIMCName (Read or Write)

Description	Displays the DNS domain name for iDRAC or IMC.
Legal Values	A valid string values
Default	None

cfgServerRootPassword (Write Only)

Description	Displays the password for IMC as a series of asterisks (*). It cannot be seen or displayed after this property is written.
Legal Values	None
Default	None

cfgServerFirstBootDevice (Read or Write)

Description Sets or displays the first boot device.

NOTE: First attach, to configure vFlash as First Boot Device. When a detached or non-existent vFlash partition or a nonstandard boot device is configured as first boot device, the following error message is displayed:

```
Invalid object value
```

Legal Values

- No-Override
- PXE
- HDD
- CD-DVD
- BIOS
- vFDD
- VCD-DVD
- iSCSI
- VFLASH partition label
- FDD

- SDe
- RFS (Remote File Share)

Default No-Override

cfgServerBootOnce (Read or Write)

Description Enables or disables the server start once feature.
This object is Write only.

Legal Values
- 1 — True
- 0 — False

Default 1

cfgServerPowerConsumption (Read Only)

Description Displays the current power consumption for a server.

Legal Values None

Default None

Example

```
racadm getconfig -g cfgServerInfo -i 1a

# cfgServerInfoIndex=1a

# cfgServerSlotNumber=1a

# cfgServerServiceTag=ABC1234

cfgServerName=SLOT-01a

# cfgServerFW=1.57.57 (Build 04)

# cfgServerBIOS=2.3.3

# cfgServerBmcMacAddress=F8:DB:88:3E:1A:00

# cfgServerNic1MacAddress=F8:DB:88:3E:1A:01

# cfgServerNic2MacAddress=F8:DB:88:3E:1A:04

cfgServerPriority=1

cfgServerNicEnable=0

cfgServerIPMIOverLANEnable=0

# cfgServerPowerBudgetAllocation=246

cfgServerDNSRegisterIMC=0

cfgServerDNSIMCName=idrac-ABCD1234
```

```
# cfgServerRootPassword=******** (Write-Only)

cfgServerFirstBootDevice=0

cfgServerBootOnce=1

# cfgServerPowerConsumption=84
```

cfgActiveDirectory

This group contains parameters to configure CMC Active Directory feature.

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

The following sections provide information about the objects in the **cfgActiveDirectory**.

cfgADRacDomain (Read or Write)

Description Active Directory Domain in which CMC resides.

Legal Values Any printable text string of up to 254 characters, with no white space.

Default <blank>

cfgADRacName (Read or Write)

Description Name of CMC as recorded in the Active Directory forest.

Legal Values Any printable text string of up to 254 characters, with no white space.

Default <blank>

cfgADRootDomain (Read or Write)

Description Specifies the root domain of the domain forest.

Legal Values Any printable text string of up to 254 characters, with no white space.

Default <blank>

cfgADEnable (Read or Write)

Description Enables or disables Active Directory user authentication on CMC.

If this property is disabled then either local CMC or LDAP authentication may be used for user login.

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

Default 0

cfgADSCLEnable (Read or Write)

Description Enables or disables Smart Card login on CMC.

Legal Values
- 1 (Enable)
- 0 (Disable)

Default 0

cfgADSSOEnable (Read or Write)

Description Enables or disables Active Directory single sign-on authentication on CMC.

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

Default 0

cfgADDomainController (Read or Write)

Description To obtain user names, specify the AD server from which you want the CMC. It must be used with `cfgADSpecifyServerEnable`.

Legal Values Valid IP address or fully qualified domain name (FQDN).

Default None

cfgADAuthTimeout (Read or Write)

Description To wait for Active Directory authentication requests to complete before timing out, specify the number of seconds.

Legal Values 15–300 seconds

Default 120

cfgADType (Read or Write)

Description To use the Active Directory, determine the schema type.

Legal Values
- 1— (Enables Active Directory with the extended schema)
- 2— (Enables Active Directory with the standard schema)

Default 1

cfgADSpecifyServerEnable (Read or Write)

Description Allows you to enable or disable and specify an LDAP server or a global catalog server. To specify the IP address, use either `cfgADDomainController` or `cfgADGlobalCatalog`.

Legal Values
- 1 (enabled)

- 0 (disabled)

Default 0

cfgADGlobalCatalog (Read or Write)

Description To obtain user names, specify the Global Catalog server from which you want the CMC. It must be used with `cfgADSpecifyServerEnable`.

Legal Values Valid IP address or fully qualified domain name (FQDN)

Default None

Example

```
racadm getconfig -g cfgActiveDirectory
```

```
cfgADEnable=0
cfgADSCLEnable=0
cfgADSSOEnable=0
cfgADRacDomain=
cfgADRootDomain=help
cfgADRacName=
cfgADCertValidationEnable=1
cfgADRacAuthTimeout=120
cfgADType=1
cfgADSpecifyServerEnable=0
cfgADDomainController=
cfgADGlobalCatalog=
```

cfgADCertValidationEnable (Read or Write)

Description Enables or disables Active Directory certificate validation as a part of the Active Directory configuration process.

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

Default 1

cfgLDAP

This group allows you to configure settings related to the Lightweight Directory Access Protocol (LDAP).

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

The following sections provide information about the objects in the **cfgLDAP**.

cfgLDAPEnable (Read or Write)

Description Enables or disables LDAP service.

If this property is disabled, local CMC authentication is used for user logins.

NOTE: Enabling this option turns off `cfgADEnable`.

Legal Values
- `1` — Enable
- `0` — Disable

Default 0

cfgLDAPServer (Read or Write)

Description Configures the address of the LDAP Server. IPv4 and IPv6 are supported.

NOTE: You can specify multiple servers by separating each server with a comma. For example, example.com, sub1.example.com

Legal Values String.

Maximum length = 254

Default Null

cfgLDAPPort (Read or Write)

Description Port of LDAP over SSL. Non-SSL port is not supported.

Legal Values 1–65535

Default 636

cfgLDAPBaseDN (Read or Write)

Description The domain name of the branch of the directory where all searches must start.

Legal Values String. Maximum length = 254

Default Null

cfgLDAPUserAttribute (Read or Write)

Description To search for, specify the user attribute. It is recommended to be unique within the chosen baseDN, otherwise a search filter must be configured to make sure the uniqueness of the login user. If the userDN cannot be uniquely identified, login is unsuccessful with error.

Legal Values String. Maximum length = 254

Default Null

cfgLDAPGroupAttribute (Read or Write)

Description Specifies which LDAP attribute is used to check for group membership. It must be an attribute of the group class. If not specified then the member and unique member attributes are used.

Legal Values String maximum length = 254

Default Null

cfgLDAPGroupAttributeIsDN (Read or Write)

Description If enabled, the CMC performs DN matching, otherwise the CMC uses the user name provided at login for matching.

Legal Values

- `1`(TRUE) — Use the `userDN` from the LDAP Server
- `0`(FALSE) — Use the `userDN` to provide the login user

Default 1

cfgLDAPBindDN (Read or Write)

Description The distinguished name of a user used to bind to the server when searching for the login user's DN. If not provided, an anonymous bind is used. If necessary It is optional to support anonymous bind.

NOTE: If cfgLDAPBindDN is [null] and cfgLDAPBindPassword is [null], then the CMC attempts an anonymous bind.

Legal Values String maximum length = 254

Default Null

cfgLDAPBindPassword (Write Only)

Description A bind password is used with the bindDN. The bind password is a sensitive data, and must be protected. It is optional to support anonymous bind.

Legal Values String maximum length = 254

Default Null

cfgLDAPSearchFilter (Read or Write)

Description To validate LDAP search filter, use the user attribute that cannot uniquely identify the login user within the chosen baseDN. The search filter only applies to userDN search and not the group membership search.

Legal Values String of maximum length = 1024 characters

Default (objectless=*)

Searches for all objects in tree.

cfgLDAPCertValidationEnable (Read or Write)

Description	Controls certificate validation during SSL handshake.
Legal Values	• 1 (TRUE) — Uses the CA certificate to validate the LDAP server certificate during SSL handshake. • 0 (FALSE) —Skips the certificate validation step of SSL handshake.
Default	1

cfgLDAPNetworkTimeout (Read or Write)

Description	Configures the network timeout in seconds.
Legal Values	Positive integer
Default	30 seconds

cfgLDAPSearchTimeout (Read or Write)

Description	Configures the search timeout in seconds.
Legal Values	Positive integer
Default	120 seconds

cfgLDAPSRVLookupEnable (Read or Write)

Description	To query a DNS server for SRV records, Configure the CMC.
Legal Values	• 1 — True • 0 — False
Default	0

cfgLDAPSRVLookupDomainName (Read Only)

Description	To use in the SRV lookup, configure the domain name.
Legal Values	String of maximum length of 254 alphanumeric characters and hyphens. The string must begin with a letter.
Default	[null]

cfgLDAPSRVLookupServiceName (Read or Write)

Description	To use in the SRV lookup, configure the service name.
Legal Values	String of maximum length of 254 characters.
Default	LDAP

cfgLDAPRoleGroup

This group configures Generic LDAP Role group descriptions and defines the CMC privileges that LDAP-authenticated users are granted.

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

`cfgLDAPRoleGroup` is indexed, containing instances numbered from 1 to 5. Each object instance consists of a pair of properties:

- `cfgLDAPRoleGroupDN` — an LDAP distinguished name (DN)
- `cfgLDAPRoleGroupPrivilege` — a CMC privilege map

Each LDAP-authenticated user assumes the total set of CMC privileges assigned to the matching LDAP distinguished names that the user belongs to. That is, if the user belongs to multiple role group DNs, the user receives all associated privileges for that DNs.

The following sections provide information about the objects in the **cfgLdapRoleGroup**.

cfgLDAPRoleGroupIndex (Read Only)

Description	It is the index value of the Role Group Object.
Legal Values	An integer between 1 and 5
Default	`<instance>`

cfgLDAPRoleGroupDN (Read or Write)

Description	It is the Domain Name of the group in this index. Configure the LDAP distinguished name (DN) for the role group instance.
Legal Values	String maximum length = 1024
Default	None

Example

```
racadm getconfig -g cfgLDAPRoleGroup -o cfgLDAPRoleGroupDN -i 1 <everyone> <groups>
<openldap> <com>
```

cfgLDAPRoleGroupPrivilege (Read or Write)

Description	A bit–mask defining the privileges associated with this particular group.
Legal Values	0x00000000 to 0x000001ff
Default	0x000

Example

```
racadm getconfig -g cfgLDAPRoleGroup -o cfgLDAPRoleGroupPrivilege -i 1 0x000001ff
```

cfgStandardSchema

This group contains parameters to configure the Active Directory standard schema 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 hash sign (#) prefixed in the output. To modify a configurable object, use the –o option.

The following sections provide information about the objects in the **cfgStandardSchema**.

cfgSSADRoleGroupIndex (Read Only)

Description	Index of the Role Group as recorded in the Active Directory.
Legal Values	An integer from 1 to 5
Default	`<instance>`

cfgSSADRoleGroupName (Read or Write)

Description	Name of the Role Group as recorded in the Active Directory forest.
Legal Values	Any printable text string of up to 254 characters, with no white space.
Default	`<blank>`

cfgSSADRoleGroupDomain (Read or Write)

Description	Active Directory Domain in which the Role Group resides.
Legal Values	Any printable text string of up to 254 characters, with no white space.
Default	`<blank>`

cfgSSADRoleGroupPrivilege (Read or Write)

Description	Use the bit mask numbers listed in the table below to set role-based authority privileges for a Role Group.
Legal Values	0x00000000 to 0x000001ff
Default	`<blank>`

cfgLocation

This group defines objects that support physical location properties. Use this object with the **config** or **getconfig** subcommands.

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

cfgLocationDataCenter (Read or Write)

Description	Indicates data center name.
Legal Values	String of up to 128 ASCII characters
Default	0

cfgLocationAisle (Read or Write)

Description	Indicates aisle where server is located.
Legal Values	String of up to 128 ASCII characters
Default	0

cfgLocationRack (Read or Write)

Description	Indicates rack where server is located.
Legal Values	String of up to 128 ASCII characters
Default	0

cfgLocationRackslot (Read or Write)

Description	Indicates slot where server is located.
Legal Values	Values 1–255 (1 Byte)
Default	0

cfgLocationDeviceSize (Read Only)

Description	Indicates server chassis size.
Legal Values	Values 1–255
Default	0

cfgChassisPower

This group contains parameters to display or configure power for the chassis.

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 the hash sign (#) prefixed in the output. To modify a configurable object, use the -o option.

The following sections provide information about the objects in the **cfgChassisPower** group.

cfgChassisServerBasedPowerMgmtMode (Read or Write)

Description Manages the applicable functions by the Power Measure, Mitigate, and Manage Console (PM3).

Legal Values
- 1 — Enabled
- 0 — Disabled

Default 0 — Disabled

cfgChassisEPPEnable (Read or Write)

Description Enables the Extended Power Performance (EPP).

Legal Values
- 1 — Enabled
- 0 — Disabled

Default 0 — Disabled

NOTE: For chassis with 3000W AC six PSU configuration (configured for Grid Redundancy policy), the default value is 1—Enabled.

cfgChassisInPower (Read Only)

Description Indicates the cumulative input power consumption data (in watts and BTU/hr) captured from all healthy and functional PSUs in the chassis.

Legal Values None

Default None

cfgChassisPeakPower (Read Only)

Description Since the user has cleared last value, the system power consumption (in watts) is maximum.

Legal Values None

Default None

cfgChassisPeakPowerTimestamp (Read Only)

Description The timestamp recorded when the peak input power consumption value occurred.

Legal Values None

Default None

cfgChassisMinPower (Read Only)

Description Since the user has cleared last value, the system power consumption (in watts) is maximum.

Legal Values None

Default None

cfgChassisMinPowerTimestamp (Read Only)

Description The timestamp recorded when the minimum system power occurred.

Legal Values None

Default None

cfgChassisPowerStatus (Read Only)

Description Indicates the power status of the chassis.

Legal Values

- 1 — (other)
- 2 — (unknown)
- 3 — (OK)
- 4 — (noncritical)
- 5 — (critical)
- 6 — (nonrecoverable)

Default None

cfgChassisRedundantState (Read or Write)

Description Enables or disables power redundancy for the chassis.

Legal Values

- 0 — No Redundancy
- 1 — Grid Redundancy
- 2 — PSU Redundancy

Default 0

cfgChassisDefaultPowerCapLowerBoundBTU (Read Only)

Description Displays the default power cap lower bound value using British Thermal Unit (BTU).

Legal Values None

Default 9263 BTU/h

cfgChassisDefaultPowerCapLowerBound (Read Only)

Description	Displays the default power cap lower bound value.
Legal Values	None
Default	2715 W

cfgChassisDefaultPowerCapUpperBound (Read Only)

Description	Displays the default power cap upper bound value.
Legal Values	None
Default	16685 W

cfgChassisDefaultPowerCapUpperBoundBTU (Read or Write)

Description	Displays the default power cap upper bound value using British Thermal Unit (BTU).
Legal Values	None
Default	56931 BTU/h

cfgChassisPowerCap (Read or Write)

Description	Indicates the maximum power consumption limit (in watts) for the entire chassis. The command generates an error if server throttling is necessary to achieve the power goal based on the value for this setting.
Legal Values	2715–16685 watts
Default	16685 watts

cfgChassisPowerCapF (Read or Write)

Description	Indicates the maximum power consumption limit (in watts) for the entire chassis. Use `cfgChassisPowerCapF` when power consumption changes regardless of whether server throttling is required. This command generates an error if the value for this setting is lower than the minimum power required for the chassis configuration.
Legal Values	271–16685 watts
Default	16685 watts

cfgChassisPowerCapBTU (Read or Write)

Description	Indicates the maximum power consumption limit (in BTU/hr) for the entire chassis. The command generates an error if server throttling is necessary to achieve the power goal based on the value for this setting.
Legal Values	9264–56931 BTU/hr

Default 43221 BTU/hr

cfgChassisPowerCapFBTU (Read or Write)

Description Indicates the maximum power consumption limit (in BTU/hr) for the entire chassis. Use `cfgChassisCapFBTU` when power consumption changes regardless of whether server throttling is required. The command generates an error if the value for this setting is lower than the minimum power required for the chassis configuration.

Legal Values 9264–56931 BTU/hr

Default 56931 BTU/hr

cfgChassisPowerCapPercent (Read or Write)

Description Indicates the power consumption limit as a percentage. The percentage is computed mathematically as the minimum power + (percent * (maximum power — minimum power)). The command generates an error if server throttling is necessary to achieve the power goal based on the value for this setting.

Legal Values 16–100

NOTE: If the specified percent is lower than the minimum value, the CMC sets the value to the minimum value.

Default 100

cfgChassisPowerCapFPercent (Read or Write)

Description Indicates the power consumption limit as a percentage. The percentage is computed mathematically as the minimum power + (percent * (maximum power — minimum power)). Use `cfgChassisPowerCapFPercent` when power consumption is changes regardless of whether server throttling is required.

Legal Values 16–100

NOTE: If the specified percent is lower than the minimum value, the CMC sets the value to the minimum value.

Default 100

cfgChassisRedundancyPolicy (Read or Write)

Description Sets the redundancy policy of the chassis.

Legal Values

- `0` — No redundancy
- `1` — Grid redundancy
- `2` — Power supply redundancy

Default `0` — No redundancy

cfgChassisDynamicPSUEngagementEnable (Read or Write)

Description Enables or disables dynamic engagement.

Legal Values
- `0` — Disabled
- `1` — Enabled

Default 0

cfgChassisAllow110VACOperation (Read or Write)

Description Enables or disables normal chassis power allocations when any PSU is connected to 110V AC service. If disabled and 110V power supplies are detected, all subsequent server power allocation requests are denied. In this mode more servers cannot be powered on, regardless of server priority.

Legal Values
- `0` — Disabled
- `1` — Enabled

Default `0`

cfgChassisAllow110VACOperationTimestamp (Read Only)

Description The timestamp recorded when `Allow110V` setting from power management is enabled.

Legal Values

Default 0

cfgChassisMaxPowerConservationMode (Read or Write)

Description Enables or disables maximum power conservation mode. When enabled, all servers are immediately reduced to their minimum power levels, and all subsequent server power allocation requests are denied. In this mode, performance of powered on servers may be degraded and more servers cannot be powered on, regardless of server priority.

Legal Values
- 0 — Disabled
- 1 — Enabled

Default 0

cfgChassisMaxPowerConservationModeTimestamp (Read Only)

Description The timestamp recorded when maximum power conservation mode is enabled.

Legal Values

Default 0

cfgChassisPerformanceOverRedundancy (Read or Write)

Description Enables or disables server performance over power redundancy. When enabled, this option favors server performance and server power-up over maintenance of power redundancy. When disabled, the system favors power redundancy over server performance. If the power supply in the chassis does not provide sufficient

power, both for redundancy, as well as full performance, then some servers may not grant sufficient power for full performance. In order to maintain redundancy, It may not be powered on.

Legal Values
- 0 — Disabled
- 1 — Enabled

Default 1

cfgChassisInMaxPowerCapacity (Read Only)

Description Indicates the total chassis power budget (in watts) available for chassis operation.

Legal Values None

Default None

cfgChassisInRedundancyReserve (Read Only)

Description Indicates the amount of redundant power (in watts) in reserve that can be utilized in the event if an AC grid or PSU is unsuccessful. This value is`0` if the Redundancy Policy is set to `0` (no redundancy).

Legal Values `0` (disabled)

`1` (enabled)

Default None

cfgChassisInPowerServerAllocation (Read Only)

Description Indicates (in watts) the cumulative power allocated to servers. There is no default as this parameter is specific to the particular customer configuration.

Legal Values None

Default None

cfgChassisInfrastructureInPowerAllocation (Read Only)

Description Indicates the estimated cumulative DC output power consumption (in watts), determined from a field replaceable unit (FRU) on the hardware modules in the chassis.

Legal Values None

Default None

cfgChassisTotalInPowerAvailable (Read Only)

Description Indicates the amount of power (in watts) available for use by the chassis.

Legal Values None

Default None

cfgChassisStandbyInPowerCapacity (Read Only)

Description Indicates the amount of power (in watts) available for powering up any hardware modules that are either added to the chassis or powered up (if they are already present in the chassis).

Legal Values None

Default None

cfgChassisPowerClear (Write Only)

Description Resets `cfgChassisMinPower` and `cfgChassisMaxPowerCapacity`, when set to `1`.

Legal Values None

Default None

cfgChassisPowerClearTimestamp (Read Only)

Description Time stamp when `cfgChassisMinPower` and `cfgChassisMaxPowerCapacity` were reset.

Legal Values None

Default None

cfgChassisPowerButtonEnable (Read or Write)

Description Indicates if the chassis power button is enabled or disabled.

Legal Values
- 0 — Disabled
- 1 — Enabled

Default None

cfgSystemEnergyConsumptionClear (Write Only)

Description Resets energy statistics when set to `1`.

Legal Values None

Default None

Examples

- ```
  racadm getconfig -g cfgChassisPower
  # cfgChassisInPower=0 W | 0 BTU/hr
  # cfgChassisPeakPower=0 W
  # cfgChassisPeakPowerTimestamp=06:32:55 01/26/2009
  # cfgChassisMinPower=0 W
  # cfgChassisMinPowerTimestamp=06:32:55 01/26/2009
  # cfgChassisPowerStatus=5
  # cfgChassisRedundantState=0
  cfgChassisPowerCap=16685 W
  cfgChassisPowerCapF=16685 W
  ```
  ```

```
cfgChassisPowerCapBTU=56931 BTU/hr
cfgChassisPowerCapFBTU=56931 BTU/hr
cfgChassisPowerCapPercent =100%
cfgChassisPowerCapFPercent =100%
cfgChassisRedundancyPolicy=0
cfgChassisDynamicPSUEngagementEnable=0
# cfgChassisInMaxPowerCapacity=0 W
# cfgChassisInRedundancyReserve=0 W
# cfgChassisInPowerServerAllocation=0 W
# cfgChassisInfrastructureInPowerAllocation=51 W
# cfgChassisTotalInPowerAvailable=0 W
# cfgChassisStandbyInPowerCapacity=0 W
# cfgChassisPowerClear=******** (Write-Only)
# cfgChassisPowerClearTimestamp=18:00:00 12/31/1969
cfgChassisServerBasedPowerMgmtMode=0
cfgChassisPowerButtonEnable=1
cfgChassisAllow110VACOperation=0
cfgChassisMaxPowerConservationMode=0
cfgChassisPerformanceOverRedundancy=1
# cfgSystemEnergyConsumptionClear = ****(Write-Only)
cfgChassisServerBasedPowerMgmtMode=0
```

- `racadm config -g cfgChassisPower -o cfgChassisPowerClear 1`

  Clears **cfgChassisMinPower** and **cfgChassisPeakPower**.

cfgThermal

This group displays and configures the thermal settings. Use this object with the **config** or **getconfig** subcommands.

To set the configurations, you must have the **Chassis Configuration Administrator** privileges.

cfgThermalMFSPercent (Read or Write)

Description	Configures the minimum fan speed in percent.
Legal Values	0 to 100
Default	0

cfgThermalEnhancedCoolingMode (Read or Write)

Description	Configures the enhanced cooling mode.
Legal Values	• `1` — Enabled • `0` — Disabled
Default	0 — Disabled

cfgKVMInfo

This group is used to display information for and configure the iKVM.

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

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

cfgKVMAccessToCMCEnable (Read or Write)

Description	Enables or disables the Dell CMC Console access on the iKVM.
Legal Values	• 1 (Enable) • 0 (Disable)
Default	None

cfgKVMFrontPanelEnable (Read or Write)

Description	Enables or disables front panel access on the iKVM.
Legal Values	• 1 (enable) • 0 (disable)
Default	None

Example

```
racadm getconfig -g cfgKVMInfo
```

```
cfgKVMAccessToCMCEnable=1
cfgKVMFrontPanelEnable=1
```

cfgLcdInfo

This group is used to display information for and configure the LCD.

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

The following section provides information about the object in **cfgLcdInfo**.

cfgLcdLocale (Read or Write)

Description	Specifies the Language (locale) for the Blade Chassis LCD interface.
Legal Values	de, fr, en, es, ja, zh-cn.
Default	en
Example	`racadm config -g cfgLcdInfo -o cfgLcdLocale en` Object value modified successfully.

cfgAlerting

This group enables or disables SNMP event trap alerting and sets the event filter.

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

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

cfgAlertingEnable (Read or Write)

Description	Enables or disables event traps on the CMC.
Legal Values	• 1 (true) • 0 (false)
Default	None

cfgAlertingFilterMask (Read or Write)

Description	Sets the event filter.
Legal Values	Hex values 0x0 — 0x1fffffff
Default	0x17ff8db

cfgAlertingSourceEmailName (Read Only)

Description	Specifies the email address used to send email notifications when an event occurs.
Legal Values	None
Default	None

Examples

```
racadm getconfig -g cfgAlerting -o cfgAlertingSourceEmailName
racadm config -g cfgAlerting -o cfgAlertingSourceEmailName user@home.com
Object value modified successfully
```

cfgIPv6LanNetworking

This group is used to configure the IPv6 over LAN networking capabilities.

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

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

The following sections provide information about the objects in the **cfgIPv6LanNetworking** group.

cfgIPv6Enable (Read or Write)

Description	Enables or disables CMC IPv6 stack.
Legal Values	• 1 (TRUE) • 0 (FALSE)
Default	0

cfgIPv6Address (Read or Write)

Description Assigns a static IPv6 address to the CMC. This property is used only if `cfgIPv6AutoConfig` is set to `0` (false).

Legal Values A string representing a valid IPv6 address. For example, `2001:DB8:1234:5678:9ABC:DE11:C00C:BEEF`

Default " :: "

cfgIPv6Gateway (Read or Write)

Description CMC gateway IPv6 address.

NOTE: This property is used only if `cfgIPv6AutoConfig` is set to `0` (false).

Legal Values Specifies string representing a valid IPv6 entry.

Default " :: "

cfgIPv6PrefixLength (Read or Write)

Description Specifies the prefix length for IPv6 address.

NOTE:

- This property is used only if `cfgIPv6AutoConfig` is set to `0`(false)

Legal Values 0–128

Default 64

cfgIPv6AutoConfig (Read or Write)

Description Enables or disables the IPv6 Auto Configuration option.

NOTE: If this value is set to `0`, the CMC disables auto configuration and statically assigns IPv6 addresses. If this value is set to `1`, the CMC obtains address and route information using stateless `auto configuration` and `DHCPv6`.

NOTE: The CMC uses its MAC address for its DUID (DUID-LL) when communicating with a DHCPv6 server.

Legal Values

- `1` (TRUE)
- `0` (FALSE)

Default `1`

cfgIPv6DNSServersFromDHCP6 (Read or Write)

Description Specifies whether `cfgIPv6DNSServer1` and `cfgIPv6DNSServer2` are `static` or `DHCP IPv6 addresses`.

NOTE: This property is used only if `cfgIPv6AutoConfig` is set to `1`(true).

Legal Values `1` (TRUE)

`0` (FALSE)

Default `1`

cfgIPv6DNSServer1 (Read or Write)

Description Specifies the IPv6 DNS server address.

NOTE: This property is used only if `cfgIPv6DNSServersFromDHCP6` is set to `0` (false).

Legal Values A string representing a valid IPv6 entry.

For example, `2001:DB8:1234:5678:9ABC:DE11:C00C:BEEF`

Default " :: "

cfgIPv6DNSServer2 (Read or Write)

Description Specifies the IPv6 DNS server address.

NOTE: This property is only valid if `cfgIPv6DNSServersFromDHCP6` is set to `0` (false).

Legal Values A string representing a valid IPv6 entry. For example,

`2001:DB8:1234:5678:9ABC:DE11:C00C:BEEF`

Default " :: "

Example

```
$ racadm getconfig -g cfgIPv6LanNetworking
cfgIPv6Enable=1
cfgIPv6AutoConfig=1
cfgIPv6Address=::
cfgIPv6PrefixLength=64
cfgIPv6Gateway=::
cfgIPv6DNSServersFromDHCP6=1
cfgIPv6DNSServer1=::
cfgIPv6DNSServer2=::
```

If both IPv4 and IPv6 are enabled on the CMC, IPv6 DNS servers take priority. The order of preference for DNS servers is:

- `cfgIPv6DNSServer1`
- `cfgIPv6DNSServer2`
- `cfgDNSServer1`
- `cfgDNSServer2`

cfgCurrentLanNetworking (Read Only)

This group displays the current CMC NIC properties.

Use this object with the **getconfig** subcommand.

To use this object property, you must have the CMC Login User privilege.

Synopsis

```
racadm getconfig -g cfgCurrentLanNetworking
```

cfgNicCurrentIpAddress (Read Only)

Description	Displays the static IP address to the CMC.
Legal Values	A Valid IPv4 address
Default	A Valid IPv4 address

cfgNicCurrentNetmask (Read Only)

Description	Displays the static subnet mask for the CMC IP address
Legal Values	A Valid IPv4 subnet
Default	A Valid IPv4 subnet

cfgNicCurrentGateway (Read Only)

Displays the static gateway for the CMC IP address.

Description	Displays the static gateway for the CMC IP address.
Legal Values	A Valid IPv4 gateway
Default	A Valid IPv4 gateway

cfgNicCurrentDhcpWasUsed (Read Only)

Description	Indicates whether DHCP is used to configure the NIC.
Legal Values	0 — address is static. 0 — address was obtained from the DHCP server.
Default	None

cfgNicCurrentVlanEnable (Read Only)

Description	Indicates whether the VLAN is enabled.
Legal Values	0 — VLAN is disabled 1 — VLAN is enabled
Default	None

cfgNicCurrentVlanID (Read Only)

Description	Indicates the Current Virtual Lan ID
Legal Values	Integer
Default	None

cfgNicCurrentVlanPriority (Read Only)

Description	Indicates the Current Virtual Lan Priority.
Legal Values	Integer
Default	None

cfgDNSCurrentServer1 (Read Only)

Description	Displays the IP address for DNS server 1.
Legal Values	A Valid IPv4 DNS IP
Default	0.0.0.0

cfgDNSCurrentServer2 (Read Only)

Description	Displays the IP address for DNS server 2.
Legal Values	A Valid IPv4 DNS IP
Default	0.0.0.0

cfgDNSCurrentDomainName (Read Only)

Description	Displays the DNS domain name.
Legal Values	<blank>
Default	None

cfgNicCurrentIPv4Enabled (Read or Write)

Description	Indicates whether IPv4 is enabled on the CMC. If the current property value is set to `0` (false), the remote network interfaces to the CMC are not accessible over IPv4.
Legal Values	• 0 — Disabled • 1 — Enabled
Default	1

Example

```
racadm getconfig -g cfgCurrentLanNetworking
# cfgNicCurrentIPv4Enabled=1
# cfgNicCurrentIpAddress=143.166.152.116
# cfgNicCurrentNetmask=255.255.255.0
# cfgNicCurrentGateway=143.166.152.1
# cfgNicCurrentDhcpWasUsed=0
# cfgNicCurrentVlanEnable=0
# cfgNicCurrentVlanID=1
# cfgNicCurrentVlanPriority=0
# cfgDNSCurrentServer1=192.168.0.5
# cfgDNSCurrentServer2=192.168.0.6
# cfgDNSCurrentDomainName=MYDOMAIN
```

cfgCurrentIPv6LanNetworking (Read Only)

This group displays the current CMC IPv6 properties.

Use this object with the **getconfig** subcommand.

To use this object property, you must have the CMC Login User privilege.

cfgCurrentIPv6Enabled (Read or Write)

Description	Indicates whether IPv6 is enabled on the CMC. If the current property value is set to 0 (false), the remote network interfaces to the CMC are not accessible over IPv6.
Legal Values	• 0 — Disabled • 1 — Enabled
Default	0

cfgCurrentIPv6AutoConfigWasUsed (Read or Write)

Description	Indicates whether auto configuration is used to obtain IPv6 settings, including stateless IPv6 addresses and gateway.
Legal Values	`0` (static addressing is used) `1` (address is obtained from the DHCPv6 server and/or stateless auto configuration)
Default	None

cfgCurrentLinkLocalAddress (Read Only)

Description	Displays the current IPv6 link-local address of the CMC.
Legal Values	None
Default	None

cfgCurrentIPv6Address (Read Only)

Description	Displays the current IPv6 addresses. This property displays up to 15 global IPv6 addresses, including stateful and stateless addresses.
Legal Values	1
Default	0

cfgCurrentIPv6Gateway (Read Only)

Description	Displays the current IPv6 gateway.
Legal Values	None
Default	None

cfgCurrentIPv6DNSServersFromDHCP6 (Read Only)

Description	Indicates whether the DNS server addresses are assigned from the DHCPv6 server.
Legal Values	None
Default	0

cfgCurrentIPv6DNSServer1 (Read Only)

Description	Displays the IPv6 address for DNS server 1.
Legal Values	<blank>
Default	None

cfgCurrentIPv6DNSServer2 (Read Only)

Description	Displays the IPv6 address for DNS server 2.
Legal Values	<blank>
Default	None

Example

```
racadm getconfig -g cfgCurrentIPv6LanNetworking
# cfgCurrentIPv6Enabled=1
# cfgCurrentIPv6AutoConfigWasUsed=1
# cfgCurrentLinkLocalAddress=fe80::21e:4fff:fe1f:5371/64
# cfgCurrentIPv6Address1=2009:123::e48f:9dd8:6f51:a669/64
# cfgCurrentIPv6Address2=fd88:1::21e:4fff:fe1f:5371/64
# cfgCurrentIPv6Address3=fd88:2::21e:4fff:fe1f:5371/64
# cfgCurrentIPv6Gateway=fe80::21c:23ff:fe77:6215
# cfgCurrentIPv6DNSServersFromDHCP6=1
# cfgCurrentIPv6DNSServer1=2009:123::1
# cfgCurrentIPv6DNSServer2=::
```

cfgNetTuning

This group enables users to configure the advanced network interface parameters. When configured, the updated settings may take up to a minute to become active.

CAUTION: Use extra precaution when modifying properties in this group. Inappropriate modification of the properties in this group can result in your RAC NIC become inoperable.

The following sections provide information about the objects in the cfgNetTuning group.

cfgNetTuningNicSpeed (Read or Write)

Description	Specifies the speed for the CMC NIC. This property is used only if cfgNetTuningNicAutoNeg is set to 0.
Legal Values	10, 100, or 1000
Default	100

cfgNetTuningNicAutoneg (Read or Write)

Description	Enables auto negotiation of physical link speed and duplex. If enabled, auto negotiation takes priority over other values set in this group.
Legal Values	• 0 = Auto Negotiation is Disabled • 1 = Auto Negotiation is Enabled
Default	1

Example

```
racadm getconfig -g cfgNetTuning
```

```
cfgNetTuningNicSpeed=100
cfgNetTuningNicFullDuplex=1
cfgNetTuningNicMtu=1500
cfgNetTuningNicAutoneg=1
```

cfgNetTuningNicFullDuplex (Read or Write)

Description	Specifies the duplex setting for the NIC. This property is used only if the`cfgNetTuningNicAutoNeg` is set to 0 (disabled).
Legal Values	• 0 (Half Duplex)

- 1 (Full Duplex)

Default 1

cfgNetTuningNicMtu (Read or Write)

Description Indicated the maximum size of units in bytes transmitted by NIC.

Legal Values 576–1500

Default 1500

NOTE: IPv6 requires a minimum MTU of 1280. If IPv6 is enabled, and cfgNetTuningMtu is set to a lower value, the CMC uses an MTU of 1280.

cfgRacSecurity

This group is used to configure settings related to CMC SSL certificate signing request (CSR) feature. The properties in this group must be configured before generating a CSR. Use this object with the **config** or **getconfig** subcommands. To use this object property, you must have the Chassis Configuration Administrator privilege.

For more information about generating certificate signing requests, see the subcommand **sslcsrgen**.

For the country code, go to the link **http://www.iso.org/iso/country_codes/iso_3166_code_lists.htm**

The following sections provide information about the objects in the **cfgRacSecurity** group.

cfgRacSecCsrCommonName (Read or Write)

Description Specifies the CSR Common Name (CN) that must be an IP or CMC name as given in the certificate.

Legal Values A string of up to 254 characters.

Default <blank>

cfgRacSecCsrOrganizationName (Read or Write)

Description Specifies the CSR Organization Name (O).

Legal Values A string of up to 254 characters.

Default <blank>

cfgRacSecCsrOrganizationUnit (Read or Write)

Description Specifies the CSR Organization Unit (OU).

Legal Values A string of up to 254 characters.

Default <blank>

cfgRacSecCsrLocalityName (Read or Write)

Description	Specifies the CSR Locality (L).
Legal Values	A string of up to 254 characters.
Default	<blank>

cfgRacSecCsrStateName (Read or Write)

Description	Specifies the CSR State Name (S).
Legal Values	A string of up to 254 characters.
Default	<blank>

cfgRacSecCsrCountryCode (Read/Write)

Description	Specifies the CSR Country Code (CC).
Legal Values	A string of 2 alphabet country code.
Default	US

cfgRacSecCsrEmailAddr (Read or Write)

Description	Specifies the CSR email address.
Legal Values	A string of up to 254 characters.
Default	<blank>

Example

```
racadm config -g cfgRacSecurity
```

```
cfgRacSecCsrKeySize=1024
cfgRacSecCommonName=
cfgRacSecOrganizationName=
cfgRacSecOrganizationUnit=
cfgRacSecLocalityName=
cfgRacSecStateName=
cfgRacSecCountryCode=
cfgRacSecEmailAddr=
```

cfgRacSecCsrKeySize (Read or Write)

Description	Specifies the SSL asymmetric key size for the CSRs.
Legal Values	1024, 2048, and 4096
Default	1024