

Dell™ Chassis Management  
Controller Firmware  
Version 2.10  
Administrator Reference  
Guide



# Notes and Cautions



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



**CAUTION:** A CAUTION indicates a potential for property damage, personal injury, or death.

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# Overview

The Dell™ Chassis Management Controller (CMC) is a hot-pluggable systems management hardware and software solution designed to provide remote management capabilities and power control functions for Dell M1000e chassis systems.

This guide is a CMC administrator reference for the following:

- RACADM subcommands — includes descriptions, usage, and examples of all commands
- CMC property database group and object definitions
- LCD panel overview

All other CMC functions are detailed in the *Dell Chassis Management Controller User's Guide* available on the Dell Support website at [support.dell.com/manuals](http://support.dell.com/manuals).

## Other Documents You May Need

In addition to this guide, the following documents provide additional information about the setup and operation of the CMC. All documents outside of the online Help are available on the Dell Support website at [support.dell.com/manuals](http://support.dell.com/manuals).

- The CMC online Help provides information about using the CMC Web interface.
- The *Dell Chassis Management Controller User Guide* contains information on using the Chassis Management Controller.
- The *Chassis Management Controller (CMC) Secure Digital (SD) Card Technical Specification* provides minimum BIOS and firmware version, installation and usage information.
- The *Integrated Dell Remote Access Controller 6 (iDRAC6) Enterprise for Blade Servers User Guide* provides information about installation, configuration and maintenance of the iDRAC6 on managed systems.
- The *Dell OpenManage IT Assistant User's Guide* provides information about IT Assistant.

- 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 following system documents are also available to provide more information about the system in which your CMC is installed:

- Safety and regulatory information that shipped with your system. Warranty information may be included within this document or as a separate document.
- 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 these options.
- Updates are sometimes included with the system to describe changes to the system, software, and/or documentation.




**NOTE:** Always read the updates first because they often supersede information in other documents.

- 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 on IOM network settings, see the *Dell PowerConnect™ M6220 Switch Important Information* document and the *Dell™ PowerConnect™ 6220 Series Port Aggregator White Paper*.



# RACADM Subcommands


## "?" and "? <command>"

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

### Description

? lists all of the subcommands you can use with the **racadm** command and a one-line description of each subcommand.

? <command> displays the syntax for the specified command.


 **NOTE:** You can also use the **help** and **help <command>** commands to obtain the same information.

### Usage

```
racadm ?
```

```
racadm ? <command>
```

### Example for racadm ?

 **NOTE:** 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
clrraclog          -- clear the CMC log
clrsele            -- 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
...
```

```

setniccfg      -- modify network configuration properties
settractime   -- set the time on the CMC
setslotname   -- sets the name of the slot in the chassis
setsysinfo    -- set the chassis name and chassis location
sslcertview   -- display a CA/server certificate in the CMC
sslcsrgeren   -- generate a certificate CSR from the CMC
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 ? <command>

```

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

```

## arp

 **NOTE:** To use this subcommand you must have Administrator privilege.

### Description

Displays the Address Resolution Protocol (ARP) table. This table stores the mapping of IP numbers to MAC addresses of the NICs in the chassis.

### Example

- racadm arp

Address	HWtype	HWaddress	Flags	Mask	Iface
143.166.152.3	ether	00:07:84:A7:CE:BC	C		eth0
143.166.152.2	ether	00:07:84:7B:9F:FC	C		eth0
143.166.152.1	ether	00:00:0C:07:AC:0A	C		eth0

## chassisaction



**NOTE:** To use this subcommand, you must have **Chassis Control Administrator** privilege.

### Description

Executes a power action on the chassis, iKVM, or a server.

### Usage

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

### Options

Table 2-1 describes **chassisaction** subcommand options.

**Table 2-1. chassisaction Subcommand Options**

Option	Description
-m <module>	Specifies the module on which you want the action carried out. <module> may be one of the following: <ul style="list-style-type: none"><li>• chassis - this is the default value if -m is not specified.</li><li>• switch-<i>n</i> where <i>n</i>=1-6</li><li>• kvm</li></ul>
<action>	Specifies the action you want to execute on the specified module. <action> may be one of the following: <ul style="list-style-type: none"><li>• powerdown — (Chassis only) Powers down the chassis.</li><li>• powerup — (Chassis only) Powers up the chassis.</li><li>• powercycle — Power cycles the module.</li><li>• nongraceshutdown — (Chassis only) Shuts down the chassis non-gracefully.</li><li>• reset — Performs a hard reset of the module.</li></ul>

**NOTE:** When <module> = kvm or switch, <action> must be powercycle or reset.

---

## Example

- Perform a reset of switch-3.

```
racadm chassisaction -m switch-3 reset
```

```
Module power operation successful.
```

## clrraclog



**NOTE:** To use this subcommand, you must have **Clear Logs Administrator** privilege.

### Description

Removes all existing records from the CMC log. A new log entry is added to record the date and time when the log was cleared, and the user who cleared the log.



**NOTE:** To view the CMC log, use **getraclog**. For information about the CMC log, see the **Viewing the CMC Log** section of the *Dell Chassis Management Controller User Guide*.

### Usage

```
racadm clrraclog
```

### Output

```
The CMC log was cleared successfully.
```

## clrssel



**NOTE:** To use this subcommand, you must have **Clear Logs Administrator** privilege.

### Description

Removes all existing records from the system events log (SEL, or hardware log). A new log entry is added to record the date and time when the log was cleared, and the user who cleared the log.



**NOTE:** To view the hardware log, use **getssel**. For information about the hardware log, see the **Viewing the Hardware Log** section of the *Dell Chassis Management Controller User Guide*.

## Usage

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

## Options

**Table 2-2. clrsel Subcommand Options**

Option	Description
-m <module>	The value of <module> can be server- <i>n</i> where the value of <i>n</i> is from 1–16.

## Output

```
The SEL was cleared successfully.
```

## Example

- Clear the CMC SEL log

```
racadm clrsel
```
- Clear the SEL log on server 1

```
racadm clrsel -m server-1
```

# cmchangeover



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

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



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

## Usage

```
racadm cmchangeover
```

## Output

CMC failover initiated successfully.

## config



**NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description

Sets the CMC configuration parameters individually or in a batch as part of a configuration file. If the data is different, that CMC object is written with the new value. Sets the iDRAC configuration parameters with the **-m** option.

### Usage

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

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

Through remote RACADM only:

```
racadm config -f <filename> [-c] [-p]
```

### Options

Table 2-3 describes the **config** subcommand options.

**Table 2-3. config Subcommand Options**

Option	Description
-g <group>	Specifies the configuration group the object belongs to. Must be used with the -o option. Table 2-4 lists the group names that can be specified with this option.
-o <object>	Specifies the object name that is written with the string <value>. Must be used with the -g option.
-i <index>	Specifies a unique group name. Only valid for indexed groups. The index is specified by the index value (a decimal integer from 1–16 that may depend on the group). Must be used with -g and -o.

**Table 2-3. config Subcommand Options (continued)**

Option	Description
-m <module>	Specifies the module you want to configure. Legal value is server- <i>n</i> , where <i>n</i> =1-16.
<value>	Indicates the value that you want to set for the specified object. While specifying <value>, the following rules apply: <ul style="list-style-type: none"> <li>• The following four characters must be escaped with a \ (backslash) character: \$ " ` \ (dollar sign, double quote, back quote, backslash).</li> <li>• A single quote (') cannot be used.</li> </ul>
-f <filename>	Specifies the file name to use as a configuration source. Valid only through remote RACADM.
-c	Specifies to perform validation but do not configure. Valid only through remote RACADM.
-p	Removes passwords from the configuration file. Valid only through remote RACADM.

### Property Groups



**NOTE:** "CMC Property Database Group and Object Definitions" on page 109, provides details about the property groups. See also "getconfig" on page 37.



**NOTE:** Configuration objects may be different between the groups accessed with the -m option and without the -m option.

Table 2-4 lists the property groups that can be specified with the -g option.

**Table 2-4. RACADM Property Groups**

Group	Description
cfgLanNetworking	Configures network related properties
cfgIPv6LanNetworking	Configures IPv6-specific network related properties
cfgRemoteHosts	Enables/disables and configures firmware update, SMTP e-mail alerting, and NTP servers
cfgUserAdmin	Configures CMC users
cfgEmailAlert	Configures CMC e-mail alerting

**Table 2-4. RACADM Property Groups (continued)**

<b>Group</b>	<b>Description</b>
cfgSessionManagement	Sets the maximum number of remote sessions allowed to connect to CMC at a time
cfgSerial	Enables/disables and configures serial console
cfgNetTuning	Configures CMC network tuning
cfgOobSnmp	Enables/disables and configures the SNMP agent for the CMC
cfgTraps	Displays information for and configures delivery of SNMP traps for a specific user
cfgRacTuning	Configures CMC tuning parameters
cfgRacSecurity	Configures settings related to the CMC SSL certificate signing request (CSR) feature
cfgActiveDirectory	Configures Microsoft® Active Directory® properties
cfgStandardSchema	Configures the Standard Schema settings for Active Directory
cfgChassisPower	Configures power for the chassis
cfgServerInfo	Configures a server in the chassis
cfgKVMInfo	Displays information for and configures the iKVM
cfgAlerting	Enables or disables SNMP event trap alerting and sets the event filter



**NOTE:** Not all CMC configuration groups are available with the `-m` option. For a list of supported groups, see "Using RACADM to Configure Properties on iDRAC" in the *Dell Chassis Management Controller User Guide*.

## Output

The `config` subcommand generates error output when it encounters any of the following:

- Invalid syntax, group name, object name, index, or other invalid database members
- Insufficient user privileges
- RACADM CLI failures



The **config** subcommand returns an indication of whether the object value was modified successfully.

Through remote RACADM only, the **config** subcommand returns an indication of the number of configuration objects that were written out of the total number of objects in the **.cfg** file.

## Examples

- Set the **cfgNicIpAddress** configuration property (object) to the value 10.35.10.110. This IP address object is contained in the group **cfgLanNetworking** (see "cfgLanNetworking" on page 111).

```
racadm config -g cfgLanNetworking -o
cfgNicIpAddress 10.35.10.100
```

- Configure or reconfigure the CMC. You can create the **myrac.cfg** file using the **getconfig** command. You can also manually edit the **myrac.cfg** file. However, ensure that you adhere to the parsing rules. For more information on the parsing rules, see the "Parsing Rules" section of the *Dell Chassis Management Controller User Guide*.

```
racadm config -f myrac.cfg
```



**NOTE:** By default, the **myrac.cfg** file does not contain the password information. Include the password information in the file manually.

- Configure a single property of a group.

```
racadm config -g cfgSerial -o cfgSerialBaudRate
115200
```

- Modify a user password.

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

- Configure the remote syslog property for a particular server (n).

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


- Configure the remote syslog property for all servers.

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

# connect

## Description

Connects to the switch or blade serial console.

 **NOTE:** You cannot use this subcommand with remote RACADM.

## Usage


- `racadm connect [-b] <server-n>`
- `racadm connect [-b] <switch-n>`

## Options

Table 2-5 describes the **connect** subcommand options.


**Table 2-5. connect Subcommand Options**

Option	Description
<code>-b</code>	Connects to the switch or console using the binary mode. This is an optional argument that requires a server or a switch option.
<code>server-n</code> or <code>switch-n</code>	Server or switch to connect to. <ul style="list-style-type: none"><li>• <code>server-n</code> where <math>n=1-16</math></li><li>• <code>switch-n</code> where <math>n=&lt;a1   a2   b1   b2   c1   c2&gt;</math></li></ul>

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

 **NOTE:** See the *Dell Chassis Management Controller User Guide* for examples on using the **connect** subcommand.

# deploy

 **NOTE:** To use this subcommand, you must have **Server Administrator** privilege.

## Description

Configures the static IP address, subnet mask, gateway, and password for the root user on the iDRAC for the specified server.



**NOTE:** You can also use `setniccfg` to configure static IP address, subnet mask, and gateway, as well as DHCP, speed, and duplex properties. For more information, see "setniccfg" on page 90.

## Usage

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



**NOTE:** `<prefixlen>` must be a number between 0 and 128.

- `racadm deploy -m <module> -u root -p <password> -d [-6]`
- `racadm deploy -a -u root -p <password>`

## Options

Table 2-6 describes the `deploy` subcommand options.

**Table 2-6. deploy Subcommand Options**

Option	Description
<code>-b &lt;device&gt;</code>	Specifies the first boot device; must be used with <code>-o</code> .  Use with <code>-m &lt;module&gt;</code> to specify for a individual server, or with <code>-a</code> for all servers  <b>Legal values:</b> <code>device=None, PXE, HDD, CD-DVD, vFDD, vCD-DVD, iSCSI, SD, FDD</code>
<code>-o &lt;no yes&gt;</code>	Indicates if the server should boot from the device once; must be used with <code>-o</code> .  Use with <code>-m &lt;module&gt;</code> to specify for a individual server, or with <code>-a</code> for all servers
<code>-a</code>	Creates and enables an iDRAC root user if it does not already exist, and is executed on all the existing servers in the chassis

**Table 2-6. deploy Subcommand Options**

Option	Description
-u root	Indicates that the <password> will be supplied for the root user on the server. root is a constant parameter, the only value that is valid with the -u option.
-m <module>	Specifies the server you want to configure. <b>Legal values:</b> server-n, where n=1-16
-p <password>	Specifies the password for the root user on the server.
-s <ipaddress subnet gateway>	Sets the IP address, subnet mask, and gateway for the specified server, separated by single spaces. <ul style="list-style-type: none"><li>• <b>ipaddress</b> — A string representing a valid IP address. For example, 192.168.0.20.</li><li>• <b>subnet</b> — A string representing a valid subnet mask. For example, 255.255.255.0.</li><li>• <b>gateway</b> — A string representing a valid gateway address. For example, 192.168.0.1.</li></ul>
-d	Enables DHCP for the specified server. <b>NOTE:</b> 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)

**Example**

- ```
racadm deploy server-8 -s 192.168.0.20  
255.255.255.0 192.168.0.1
```

The server was deployed successfully.



**NOTE:** The **deploy** command generates an error when used on the extension slot of a multi-slot server.

- ```
racadm deploy -m server-9 192.168.0.11  
255.255.255.0 192.168.0.1
```

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

- `racadm deploy -m server-7 -u root -p calvin -s -6 ::/64 :: 10`

## feature



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

### 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.



**NOTE:** The **feature** subcommand must be run while the chassis is powered off to deactivate FlexAddress or the command will return an error.

### Usage

```
racadm feature -s
```

```
racadm feature -d -c <featurename>
```

### Options

Table 2-7 describes the **feature** subcommand options.

**Table 2-7. feature Subcommand Options**

Option	Description
-s	Displays the status of a feature.
-c	<featurename> must be flexaddress.
-d	Deactivates the feature specified in the -c option.

### Example

- `racadm feature -d -c flexaddress`

feature FlexAddress is deactivated on the chassis successfully

- racadm feature -s

Feature = FlexAddress

Date Activated = 8 April 2008 - 10:39:40

Feature installed from SD card SN = 01122334455

## featurecard



**NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description

Verifies proper SD card installation and displays the SD card status. Table 2-8 lists the status messages returned by the command.

**Table 2-8. Status Messages Returned by featurecard -s Command**

Status Message	Actions
No feature card inserted.	Check the CMC to verify that the SD card was properly inserted. 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	No action required.
No features active on the chassis	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	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	The feature card can be moved to another chassis, or can be reactivated on the current chassis. To reactivate on the current chassis, enter <i>racadm racreset</i> until the CMC module with the feature card installed becomes active.

## Usage

`racadm featurecard -s`

## Options

Table 2-9 describes the **featurecard** subcommand options.

**Table 2-9. featurecard Subcommand Options**

Option	Description
-s	Lists active SD card features and SD card status.

## Example

```
$ feature -s
```

```
Feature Name = FlexAddress
```

```
Date/time Activated = 23 Jul 2009 - 21:01:10
```

```
Feature installed from SD-card SN =  
TEST0123456789012345678
```

## fwupdate



**NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description

Updates the firmware on the iKVM, primary CMC, standby CMC, server iDRACs, or an IOM infrastructure device. This subcommand also performs updates to the iDRAC firmware (if the CMC firmware version is 2.0 or later and the iDRAC firmware version is 1.4) when the existing firmware is corrupted.



**NOTE:** Running the **fwupdate** subcommand to update the firmware on the primary CMC resets the primary CMC causing all network connections to be dropped. During update of all other modules, including the standby CMC, the primary CMC continues to run normally without resetting.

### Usage

For local RACADM:

```
racadm fwupdate -g -u -a <tftp server ip address> -d  
<path> [-m <module>]
```

```
racadm fwupdate -f <ftp server ip address> <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 <firmware image>
```

## Options

Table 2-10 describes the **fwupdate** subcommand options.

**Table 2-10. fwupdate Subcommand Options**

Option	Description
-d <path>	Specifies the source path where the firmware image resides. <b>Default:</b> designated TFTP default directory on that host for the file if -g option is absent. If -g is used, defaults to directory configured on the TFTP server
-g	Downloads the firmware update using the TFTP server.
-u	Performs the firmware update operation.
-a <tftp server ip address>	Specifies the TFTP server IP address used for the firmware image (used with -g). <b>NOTE:</b> Only IPv4 TFTP server IP addresses are supported for CMC version 2.10.
-f <ftp server ip address> <username> <password>	Specifies the FTP server IP address used for the firmware image, along with the username and password. Can only be used with CMC, iKVM, and server iDRAC modules. <b>NOTE:</b> Both IPv4 and IPv6 FTP server IP addresses are supported for CMC version 2.10.

**Table 2-10. fwupdate Subcommand Options (continued)**

Option	Description
-m <module>	<p>Specifies the module or device to be updated. &lt;module&gt; can have one of the following values:</p> <ul style="list-style-type: none"><li>• cmc-active (default)</li><li>• cmc-standby</li><li>• kvm</li><li>• server-n where n = 1-16</li><li>• server-generation where generation = iDRAC or iDRAC6</li><li>• iominf-n where n = 1-6</li></ul>
	<p><b>NOTE:</b> You can specify the cmc-active and cmc-standby modules at the same time along with one or more server-n modules. This enables the devices to be updated together.</p>
	<p><b>NOTE:</b> See "Updating the IOM Infrastructure Device Firmware" section of the "Using the CMC Web Interface" chapter of the <i>Dell Chassis Management Controller User Guide</i> for additional information on the IOM infrastructure device firmware update process.</p>
	<p><b>NOTE:</b> When you use the server-generation option, the CMC updates all iDRACs of that particular generation that can be updated.</p>
	<p><b>NOTE:</b> Verify that the update applied to servers for a particular generation has been validated for all impacted server models.</p>
-s	<p>Displays the current status of the firmware update.</p>
	<p><b>NOTE:</b> Use -m to display the status of the module update. Omit -m to display the status of the active CMC update.</p>
	<p><b>NOTE:</b> The all value can only be used to obtain the status of all targets to be updated.</p>
-c	<p>Cancels the current firmware update.</p>
-p	<p>Uploads the firmware image from the client. Can be used only with remote RACADM.</p>



**NOTE:** 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 you do not provide a full path, then the CMC searches the home directory of the specified user for the file if the host system is running Linux or another variant of UNIX. If the host system is running Windows, then a default folder, such as `C:\ftproot` is searched.

## Examples

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

```
racadm fwupdate -g -u -a 192.168.0.100 -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 password123  
-d firmimg.cmc -m cmc-active
```

- Start IOM infrastructure firmware update

```
racadm fwupdate -u -m iominf-1
```

- Update firmware on both the CMCs

```
racadm fwupdate -g -u -a 192.168.0.100 -d  
firmimg.cmc -m cmc-active -m cmc-standby
```

- Update firmware on multiple servers

```
racadm fwupdate -g -u -a 192.168.0.100 -d  
firmimg.imc -m server-1 -m server-2 -m server-3
```


- Update firmware on iDRAC6 servers

```
racadm fwupdate -g -u -a 192.168.0.100 -d  
firmimg.imc -m server-idrac6
```


- Update firmware on multiple IOM infrastructures

```
racadm fwupdate -u -m iominf-4 -m iominf-5 -m  
iominf-6
```

- Query the current 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>`
- Cancel a firmware update in progress  
`racadm fwupdate -c`
- Upload a firmware image from the client and start the firmware update  
`racadm fwupdate -p -u -d firming.cmc`

 **NOTE:** The `fwupdate` command generates an error when used on the extension slot of a multi-slot server.

## getassettag

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

### Description

Displays the asset tag for the chassis.

### Usage

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

### Options

Table 2-11 describes the `getassettag` subcommand options.

**Table 2-11. getassettag Subcommand Options**

Option	Description
<code>-m &lt;module&gt;</code>	Specifies the module whose asset tag you want to view.  <b>Legal value:</b> <code>chassis</code>  Because there is only one legal value, you can obtain the same output if you do not include this option.

### Example

- `racadm getassettag -m chassis`  
or  
`racadm getassettag`  
`chassis 78373839-33`

## getchassisname



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

### Description

Displays the name of the chassis.

### Usage

```
racadm getchassisname
```

### Example

- `racadm getchassisname`  
`PowerEdge 2955`

## getconfig



**NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description

Displays CMC configuration parameters and allows you to save CMC configuration groups to a `.cfg` file. Displays iDRAC configuration parameters with the `-m` option.

### Usage

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

```
racadm getconfig -g <group> -i <index> -o <object>
```

```
racadm getconfig -u <username>
```

```
racadm getconfig -h
```

Through remote RACADM only:

```
racadm getconfig -f <filename>
```

## Options

Table 2-12 describes the `getconfig` subcommand options.

**Table 2-12. getconfig Subcommand Options**

Option	Description
-g <group>	Specifies the configuration group to display. Table 2-13 lists the groups you can specify.
-o <object>	Specifies the configuration object to display. Must be used with the -g option.
-i <index>	Specifies the index of an indexed group. Must be used with the -g option. The index is specified by the index value (a decimal integer from 1–16).
-u	Displays the group associated with a specific user.
-h	Displays a list of all available configuration groups.
-f <filename>	Saves CMC configuration in a .cfg file using the specified file name.
-m <module>	Specifies the module you want to configure. Legal values are <code>server-n</code> , where $n=1-16$ .



**NOTE:** Not all CMC configuration groups are available with the -m option. For a list of supported groups, see "Using RACADM to Configure Properties on iDRAC" in the *Dell Chassis Management Controller User Guide*.

## Property Groups



**NOTE:** "CMC Property Database Group and Object Definitions" on page 109, provides details about these property groups. See also "config" on page 22.



**NOTE:** Configuration objects may be different between the groups accessed with and without the -m option.

Table 2-13 lists the property groups that can be specified with the `getconfig` subcommand `-g` option.

**Table 2-13. Property Groups for the `getconfig` Subcommand**

<b>Property Group</b>	<b>Description</b>
<code>idRacInfo (read only)</code>	Displays version, build number, and product information for the CMC
<code>cfgLanNetworking</code>	Configures network related properties
<code>cfgIPv6LanNetworking</code>	Displays information for and configures IPv6 network-related properties
<code>cfgCurrentLanNetworking (read only)</code>	Displays the current CMC NIC properties
<code>cfgCurrentIPv6LanNetworking (read only)</code>	Displays the current CMC IPv6 properties.
<code>cfgRemoteHosts</code>	Enables/disables and configures firmware updates and SMTP email alerting
<code>cfgUserAdmin</code>	Configures CMC users
<code>cfgEmailAlert</code>	Configures SMTP email alerts
<code>cfgSessionManagement</code>	Sets the maximum number of remote sessions allowed to connect to CMC at a time
<code>cfgSerial</code>	Enables/disables and configures serial console
<code>cfgNetTuning</code>	Configures CMC network tuning
<code>cfgOobSnmp</code>	Enables/disables and configures the SNMP agent for the CMC
<code>cfgTraps</code>	Configures delivery of SNMP traps for a specific user
<code>cfgRacTuning</code>	Configures CMC tuning parameters
<code>cfgRacSecurity</code>	Configures settings related to the CMC SSL certificate signing request (CSR)
<code>cfgActiveDirectory</code>	Configures Microsoft® Active Directory® properties
<code>cfgStandardSchema</code>	Configures the Standard Schema settings for Active Directory
<code>cfgChassisPower</code>	Configures power for the chassis

**Table 2-13. Property Groups for the getconfig Subcommand (continued)**

Property Group	Description
cfgServerInfo	Configures a server in the chassis
cfgKVMInfo	Displays information for and configures the iKVM
cfgAlerting	Enables or disables SNMP event trap alerting and sets the event filter

### Output

This subcommand generates error output upon encountering either of the following:

- Invalid syntax, group name, object name, index, or other invalid database members
- RACADM CLI transport failures

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

### Examples:

- Display all the configuration properties (objects) contained in a group, for example **cfgLanNetworking** (see "cfgLanNetworking" on page 111):  

```
racadm getconfig -g cfgLanNetworking
```
- Display the server slot name; the slot name can have a maximum of 15 characters (see "cfgServerName" on page 151):  

```
racadm getconfig -g cfgserverinfo -o cfgservername
```
- Display a single object (for example, **cfgSerialBaudRate**) from a particular group (for example, **cfgSerial**):  

```
racadm getconfig -g cfgSerial -o cfgSerialBaudRate
```
- Save all group configuration objects from the CMC to **myrac.cfg**:  

```
racadm getconfig -f myrac.cfg
```
- Display a list of the available configuration groups on the CMC:  

```
racadm getconfig -h
```
- Display the configuration properties for a user named root:



```
racadm getconfig -u root
```

- Display an indexed group:

```
racadm getconfig -g cfgUserAdmin -o  
cfgUserAdminUserName -i 2
```

- Display information about the session information for a particular server:

```
racadm getconfig -g cfgSessionManagement -m  
server-1
```

- Display information about the WEB/SSH/Telnet information for a server:

```
racadm getconfig -g cfgRacTuning -m server-1
```

- Display information about the remote syslog for a server:

```
racadm getconfig -g cfgRemoteHosts -m server-1
```

## getdcinfo



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

### Description

Displays general I/O module and daughter card configuration information.



**NOTE:** Fabric verification for server DCs is performed only when the chassis is powered on. When the chassis is on standby power, the iDRACs on the server modules remain powered 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 the iDRAC on the server is powered on.

### Usage

```
racadm getdcinfo
```



**NOTE:** The example output below is for a system with multi-slot servers.

### Example

```
racadm getdcinfo
```

---

<Server#>	<Presence>	<DC1 Type>	<DC1 State>	<DC2 Type>	<DC2 State>
server-1	Present	FibreChannel 8	OK	Infiniband DDR	OK

server-2	Not Present	None	N/A	None	N/A
server-3	Present	FibreChannel 8	OK	Infiniband DDR	OK
server-4	Not Present	None	N/A	None	N/A
server-5	Not Present	None	N/A	None	N/A
server-6	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	Not Present	None	N/A	None	N/A
server-9	Extension(1)	FibreChannel 8	OK	Infiniband DDR	OK
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

## getflexaddr



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

### Description

Displays enabled/disabled status for the entire chassis. If used with **-i**, the command displays MACs/WWN on a per slot basis.



**NOTE:** If FlexAddress is not activated on the chassis, the command displays server-assigned MAC/WWN addresses. If the slot is empty, the command will return an error message.

### Usage

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

### Options

Table 2-14 describes the **getflexaddr** subcommand options.

**Table 2-14. getflexaddr Subcommand Options**

Option	Description
-i <slotNum>	Specifies the slot information to be displayed. <slotNum> can be from 1–16.

**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

---

### idrac Management Controller Disabled

- Display the current FlexAddress setting for slot 1

```
racadm getflexaddr -i 1
```

```
Slot-1 server presence = Present
```

```
Slot-1 flexaddress enabled = 1
```

---

<Fabric>	<Type>	<Server-Assigned>	<Chassis-Assigned>
slot1-A1	Gigabit Ethernet	00:1C:23:CD:AC:D2 (active)	00:1E:C9:FF:E3:21
	iSCSI	00:1C:23:CD:AC:D3 (active)	00:1E:C9:FF:E3:22
slot1-A2	Gigabit Ethernet	00:1C:23:CD:AC:D4 (active)	00:1E:C9:FF:E3:23
	iSCSI	00:1C:23:CD:AC:D5 (active)	00:1E:C9:FF:E3:24
slot1-B1	Gigabit Ethernet	00:1D:09:71:B3:60	00:1E:C9:FF:E3:25 (active)
	iSCSI	00:1D:09:71:B3:61	00:1E:C9:FF:E3:26 (active)
slot1-B2	Gigabit Ethernet	00:1D:09:71:B3:62	00:1E:C9:FF:E3:27 (active)
	iSCSI	00:1D:09:71:B3:63	00:1E:C9:FF:E3:28 (active)
slot1-C1	Fiber Channel 4	10:00:00:00:C9:63:51:0E	20:01:00:1E:C9:FF:E3:29 (active)
slot1-C2	Fiber Channel 4	10:00:00:00:C9:63:51:0D	20:02:00:1E:C9:FF:E3:29 (active)

---

## getinfo



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

### Description

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



**NOTE:** The fabric type may be any supported I/O fabric type, such as Ethernet, Fiber Channel, and Infiniband.

### Usage

```
racadm getioinfo
```

### Example

```
racadm getioinfo
```

<IO>	<Name>	<Type>	<Presence>	<POST>	<Power>
switch-1	Ethernet Passthrough	Gigabit Ethernet	Present	OK	ON
switch-2	N/A	None	Not Present	N/A	N/A
switch-3	N/A	None	Not Present	N/A	N/A
switch-4	N/A	None	Not Present	N/A	N/A
switch-5	N/A	None	Not Present	N/A	N/A
switch-6	N/A	None	Not Present	N/A	N/A

## getkvminfo



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

### Description

Displays iKVM module information.

### Usage

```
racadm getkvminfo
```

### Example

```
racadm getkvminfo
```

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

## getled



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

### Description

Displays the LED settings on a module: blinking, not blinking, or unknown (for empty slots).

### Usage

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

Table 2-15 describes the **getled** subcommand options.

**Table 2-15. getled Subcommand Options**

Option	Description
-m <module>	<p>Specifies the module whose LED settings you want to view.</p> <p>&lt;module&gt; can be one of the following:</p> <ul style="list-style-type: none"> <li>• server-<i>n</i> where <i>n</i>=1-16</li> <li>• switch-<i>n</i> where <i>n</i>=1-6</li> <li>• chassis</li> <li>• cmc-active</li> </ul>

### Examples

- 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



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

### Description

Displays the MAC/WWN addresses for all modules or for a specified module.

### Usage

```

racadm getmacaddress [-m <module>] [-t iscsi]
racadm getmacaddress [-a]

```

### Options

Table 2-16 describes the **getmacaddress** subcommand options.

**Table 2-16. getmacaddress Subcommand Options**

Option	Description
-m <module>	Specifies the module whose MAC address you want to view. <module> may be one of the following: <ul style="list-style-type: none"> <li>• chassis</li> <li>• server-<i>n</i> where <i>n</i>=1-16</li> <li>• switch-<i>n</i> where <i>n</i>=1-6</li> </ul>
-t	Displays the iSCSI MAC addresses for all servers or the specified server if used with <b>-m</b> option.
-a	Displays the Ethernet and iSCSI MAC/WWN addresses for all iDRAC/LOMs/mezzanine cards. When FlexAddress is enabled for a particular slot, then the chassis-assigned MAC/WWN address is displayed.

## Example

- 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 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-9	Extension(1)	N/A	00:11:43:FD:B7:2C	00:11:43:FD:B7:2D

---

- Display MACs for all modules  
`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
Server-5	Present	00:19:B9:FF:FE:E2	00:19:B9:FF:FC:0C	00:19:B9:FF:FC:0E
Server-6	Present	00:22:19:D2:1D:D4	N/A	N/A
Server-7	Present	00:1E:4F:FF:FC:DC	00:1E:4F:FF:F0:B0	00:1E:4F:FF:F0:B2
Server-8	Not Present	N/A	N/A	N/A
Server-9	Not Present	N/A	N/A	N/A
Server-10	Not Present	N/A	N/A	N/A



Server-11	Not Present	N/A	N/A	N/A
Server-12	Not Present	N/A	N/A	N/A
Server-13	Present	00:18:8B:FF:45:26	00:18:8B:FF:A9:F2	00:18:8B:FF:A9:F4
Server-14	Present	00:22:19:D2:1E:A2	N/A	N/A
Server-15	Extension(7)	N/A	00:1E:4F:FF:F0:B4	00:1E:4F:FF:F0:B6
Server-16	Not Present	N/A	N/A	N/A
Switch-1	Present	N/A	00:00:00:00:00:00	N/A
Switch-2	Present	N/A	00:00:00:00:00:00	N/A
Switch-3	Present	N/A	00:00:00:00:00:00	N/A
Switch-4	Present	N/A	00:00:00:00:00:00	N/A
Switch-5	Present	N/A	00:05:1E:08:EB:0B	N/A
Switch-6	Not Present	N/A	N/A	N/A

- Display Ethernet and iSCSI MACS of all LOMs/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:A A:02	00:18:8B:FF: :AA:04
	iSCSI	Present		00:18:8B:FF:A A: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
Server-5- A	Gigabit Ethernet	Present	00:19:B9:FF: FE:E2	00:19:B9:FF:F C:0C	00:19:B9:FF: :FC:0E
	iSCSI	Present		00:19:B9:FF:F C:0D	00:19:B9:FF: :FC:0F
Server-5- B	Gigabit Ethernet	Present		Not Installed	Not Installed
	iSCSI	Present		Not Installed	Not Installed
Server-5- C	Fibre Channel 4	Present		Not Installed	Not Installed
Server-6- A	Gigabit Ethernet	Present	00:22:19:D2: 1D:D4	N/A	N/A
	iSCSI	Present		N/A	N/A
Server-6- B	Gigabit Ethernet	Present		Not Installed	Not Installed
	iSCSI	Present		Not Installed	Not Installed
Server-6- C	Fibre Channel 4	Present		Not Installed	Not Installed
Server-7- A	Gigabit Ethernet	Present	00:1E:4F:FF: FC:DC	00:1E:4F:FF:F 0:B0	00:1E:4F:FF: :F0:B2
	iSCSI	Present		00:1E:4F:FF:F 0:B1	00:1E:4F:FF: :F0:B3

Server-7-B	Gigabit Ethernet	Present		00:1D:09:72:01:C8	00:1D:09:72:01:CA
Server-7-C	Fibre Channel 4	Present		21:00:00:1B:32:0E:CF:34	21:01:00:1B:32:2E:CF:34
Server-8	N/A	Not Present	N/A	N/A	N/A
Server-9	N/A	Not Present	N/A	N/A	N/A
Server-10	N/A	Not Present	N/A	N/A	N/A
Server-11	N/A	Not Present	N/A	N/A	N/A
Server-12	N/A	Not Present	N/A	N/A	N/A
Server-13-A	Gigabit Ethernet	Present	00:18:8B:FF:45:26	00:18:8B:FF:A9:F2	00:18:8B:FF:A9:F4
	iSCSI	Present		00:18:8B:FF:A9:F3	00:18:8B:FF:A9:F5
Server-13-B	Gigabit Ethernet	Present		00:1D:09:71:E0:78	00:1D:09:71:E0:7A
	iSCSI	Present		00:1D:09:71:E0:79	00:1D:09:71:E0:7B
Server-13-C	Fibre Channel 4	Present		21:00:00:1B:32:0E:EF:30	21:01:00:1B:32:2E:EF:30
Server-14-A	Gigabit Ethernet	Present	00:22:19:D2:1E:A2	N/A	N/A
	iSCSI	Present		N/A	N/A
Server-14-B	Gigabit Ethernet	Present		Not Installed	Not Installed
	iSCSI	Present		Not Installed	Not Installed
Server-14-C	Fibre Channel 4	Present		Not Installed	Not Installed
Server-15-A	Gigabit Ethernet	Extension(7)	N/A	00:1E:4F:FF:F0:B4	00:1E:4F:FF:F0:B6
	iSCSI	Extension(7)	N/A	00:1E:4F:FF:F0:B5	00:1E:4F:FF:F0:B7
Server-15-B	Gigabit Ethernet	Extension(7)	N/A	00:1D:09:71:E1:20	00:1D:09:71:E1:22
	iSCSI	Extension(7)	N/A	00:1D:09:71:E1:21	00:1D:09:71:E1:23
Server-15-C	Fibre Channel 4	Extension(7)	N/A	21:00:00:1B:32:17:3A:66	21:00:00:1B:32:37:3A:66

Server-16	N/A	Not Present	N/A	N/A	N/A
Switch-1	None	Present	N/A	00:00:00:00:00:00:00	N/A
Switch-2	None	Present	N/A	00:00:00:00:00:00:00	N/A
Switch-3	None	Present	N/A	00:00:00:00:00:00:00	N/A
Switch-4	None	Present	N/A	00:00:00:00:00:00:00	N/A
Switch-5	None	Present	N/A	00:05:1E:08:E B:0B	N/A
Switch-6	N/A	Not Present	N/A	N/A	N/A

## getmodinfo



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



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

### Description

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

### Usage

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

### Options

Table 2-17 describes the **getmodinfo** subcommand options.

**Table 2-17. getmodinfo Subcommand Options**

Option	Description
-m <i>&lt;module&gt;</i>	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.  <i>&lt;module&gt;</i> may be any of the following values: <ul style="list-style-type: none"> <li>• server-<i>n</i> where <i>n</i>=1-16</li> <li>• switch-<i>n</i> where <i>n</i>=1-6</li> <li>• CMC-<i>n</i> where <i>n</i>=1 (primary), 2 (standby)</li> <li>• fan-<i>n</i> where <i>n</i>=1-9</li> <li>• ps-<i>n</i> where <i>n</i>=1-6</li> <li>• kvm</li> <li>• chassis</li> </ul>
-A	Suppresses headers and labels in the output.

**Example**

- racadm getmodinfo -m switch-1

```
<module>      <presence>      <pwrState>      <health>      <svcTag>
Switch-1      Present          ON              OK              ABC1234
```

- racadm getmodinfo

```
<module>      <presence>      <pwrState>      <health>      <svcTag>
Chassis      Present          ON              Not OK        ABC1234
Fan-1        Present          ON              OK
Fan-2        Present          ON              OK
Fan-3        Present          ON              OK
Fan-4        Present          ON              OK
Fan-5        Present          ON              OK
Fan-6        Present          ON              OK
Fan-7        Present          ON              OK
Fan-8        Present          ON              OK
Fan-9        Present          ON              OK
PS-1         Present          Online          OK
PS-2         Not Present      N/A            N/A           N/A
PS-3         Present          Online          OK
PS-4         Not Present      N/A            N/A           N/A
PS-5         Not Present      N/A            N/A           N/A
PS-6         Not Present      N/A            N/A           N/A
```

CMC-1	Present	Primary	OK	N/A
CMC-2	Not Present	N/A	N/A	N/A
Switch-1	Not Present	N/A	N/A	N/A
Switch-2	Not Present	N/A	N/A	N/A
Switch-3	Not Present	N/A	N/A	N/A
Switch-4	Not Present	N/A	N/A	N/A
Switch-5	Not Present	N/A	N/A	N/A
Switch-6	Not Present	N/A	N/A	N/A
Server-1	Not Present	N/A	N/A	N/A
Server-2	Present	OFF	OK	
Server-3	Present	ON	OK	S YW
Server-4	Present	ON	OK	
Server-5	Present	ON	OK	
Server-6	Present	ON	OK	1234567
Server-7	Present	ON	OK	
Server-8	Not Present	N/A	N/A	N/A
Server-9	Not Present	N/A	N/A	N/A
Server-10	Extension (2)	N/A	N/A	N/A
Server-11	Not Present	N/A	N/A	N/A
Server-12	Present	ON	OK	
Server-13	Not Present	N/A	N/A	N/A
Server-14	Present	ON	OK	0000015
Server-15	Present	ON	OK	
Server-16	Present	ON	OK	
KVM	Present	ON	OK	

## getniccfg



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

### Description

Displays network settings for a server, switch, or the chassis.



**NOTE:** The **getniccfg** subcommand will display an error message if the operation is not successful.

### Usage

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

### Options

Table 2-18 describes the **getniccfg** subcommand options.

**Table 2-18. getniccfg Subcommand Options**

Option	Description
-m <i>&lt;module&gt;</i>	Specifies the module whose network settings you want to view. <i>&lt;module&gt;</i> may be any of the following: <ul style="list-style-type: none"><li>• chassis</li><li>• server-<i>n</i> where <i>n</i>=1-16</li><li>• switch-<i>n</i> where <i>n</i>=1-6</li></ul> <b>Default:</b> chassis

### Examples


- racadm getniccfg  
NIC Enabled = 1  
IPv4 Enabled = 1  
DHCP Enabled = 1  
Static IP Address = 192.168.7.79  
Static Subnet Mask = 255.255.255.0  
Static Gateway = 192.168.0.1  
Current IP Address = 192.168.7.62  
Current Subnet Mask = 255.255.255.0  
Current Gateway = 192.168.7.1  
IPv6 Enabled = 1  
Autoconfiguration Enabled = 1  
Static IPv6 Address = ::/64  
Static IPv6 Gateway = ::  
Link Local Address = fe80::21e:4fff:fe1f:1701/64  
Current IPv6 Address 1 =  
2009:123::44b4:b2a0:b1ae:c1e6/64  
Current IPv6 Address 2 =  
fd88:1::21e:4fff:fe1f:1701/64  
Current IPv6 Address 3 =  
fd88:2::21e:4fff:fe1f:1701/64  
Current IPv6 Gateway = fe80::21c:23ff:fe77:6215  
Speed = Autonegotiate  
Duplex = Autonegotiate  
VLAN Enable = 0

```
VLAN ID = 1
VLAN priority = 0
```

For iDRAC that supports IPv6:

- `racadm getniccfg -m server-1`

```
IPv4 Enabled           = 1
DHCP Enabled          = 1
IP Address             = 192.168.7.68
Subnet Mask           = 255.255.255.0
Gateway               = 192.168.7.1
IPv6 Enabled          = 1
Autoconfiguration Enabled = 1
Link local Address    =
fe80::222:19ff:fed2:1d67/64
IPv6 Address 1        =
2009:123::fb2f:9b4a:dce8:b802/128
IPv6 Address 2        =
fd88:1::222:19ff:fed2:1d67/64
IPv6 Address 3        =
fd88:2::222:19ff:fed2:1d67/64
IPv6 Gateway          =
fe80::21c:23ff:fe77:6215
VLAN Enable           = 0
VLAN ID               = 4
VLAN priority         = 3
```

 **NOTE:** VLAN properties are displayed even when the VLAN is disabled.

 **NOTE:** IPv6 information is displayed only if the iDRAC supports IPv6.

For iDRAC that does not support IPv6:

- `racadm getniccfg -m server-1`

```
DHCP Enabled          = 1
IP Address             = 192.168.7.100
Subnet Mask           = 255.255.255.0
Gateway               = 192.168.7.1
VLAN Enable           = 0
VLAN ID               = 1
VLAN priority         = 0
```
- `racadm getniccfg -m server-9`



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

## getpbinfo



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

### Description

Displays power budget status information.

### Usage

```
racadm getpbinfo
```

### Example

```
racadm getpbinfo
```

```
[Power Budget Status]
```

```
System Input Power           = 700 W
Peak System Power           = 0 W
Peak System Power Timestamp  = 01:08:23 01/27/2009
Minimum System Power        = 0 W
Minimum System Power Timestamp = 20:18:30 01/27/2000
Overall Power Health        = Not OK
Redundancy                  = No
System Input Power Cap     = 7928 W
Redundancy Policy          = None
Dynamic PSU Engagement Enabled = No
System Input Max Power Capacity = 0 W
Input Redundancy Reserve   = 0 W
Input Power Allocated to Servers = 0 W
Input Power Allocated to Chassis Infrastructure =
51 watts
Total Input Power Available for Allocation = 0 W
Standby Input Power Capacity = 0 W
```

[Chassis Power Supply Status Table]

<Name> <Presence> <Power State> <Input Current> <Input Volts>  
<Output Rating>

PS1	Online	On	16.1 A	32 V	2360 W
PS2	Not Present	Slot Empty	N/A	N/A	N/A
PS3	Not Present	Slot Empty	N/A	N/A	N/A
PS4	Not Present	Slot Empty	N/A	N/A	N/A
PS5	Not Present	Slot Empty	N/A	N/A	N/A
PS6	Not Present	Slot Empty	N/A	N/A	N/A

[Server Module Power Allocation Table]

<Slot#><Server Name><PowerState><Allocation><Priority><Blade Type>

1	SLOT-01	N/A	N/A	5	N/A
2	SLOT-02	OFF	0 W	5	PowerEdgeM805
3	SLOT-03	ON	164 W	5	N/A
4	SLOT-04	ON	155 W	5	
5	SLOT-05	ON	180 W	5	
6	SLOT-06	ON	180 W	5	PowerEdgeM600
7	SLOT-07	ON	170 W	5	
8	SLOT-08	N/A	N/A	5	N/A
9	SLOT-09	N/A	N/A	5	N/A
10	SLOT-10	Extension(2)	N/A	5	N/A
11	SLOT-11	N/A	N/A	5	N/A
12	SLOT-12	ON	125 W	5	PowerEdgeM600
13	SLOT-13	N/A	N/A	5	N/A
14	SLOT-14	ON	342 W	5	N/A
15	SLOT-15	ON	140 W	5	
16	SLOT-16	ON	125 W	5	N/A

## getpminfo



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

### Description

Displays power management status information.

## Usage

```
racadm getpminfo
```

## Example

```
racadm getpminfo
```

```
[Real-Time Power Statistics]
```

```
System Input Power           = 600 W (188 BTU/hr)
Peak System Power           = 600 W (188 BTU/hr)
Peak System Power Start Time = 16:02:10 01/16/2008
Peak System Power Timestamp  = 06:32:55 01/26/2009
Minimum System Power        = 400 W (177 BTU/hr)
Minimum System Power Start Time = 22:43:21 01/21/2008
Minimum System Power Timestamp = 06:32:55 01/26/2009
System Idle Power           = 68 W (188 BTU/hr)
System Potential Power      = 68 W (188 BTU/hr)
System Input Current Reading = 31.2 A
```

```
[Real-Time Energy Statistics]
```

```
System Energy Consumption           = 6.4 kWh
System Energy Consumption Start Time = 16:02:10
01/16/2008
System Energy Consumption Timestamp  = 16:02:10
01/16/2008
```

```
[System Power Status]
```

```
Chassis Power State           = ON
Overall Power Health          = OK
Redundancy                     = No
```

```
[System Power Policy Configuration]
```

```
System Input Power Cap        = 7928 W (7928
BTU/hr | 10%)
Surplus for Peak Performance   = 7000 W (6130
BTU/hr)
Redundancy Policy              = None
Dynamic PSU Engagement Enabled  = No
```

```
[Power Budgeting]
```

System Input Max Power Capacity	= 0 W
Input Redundancy Reserve	= 0 W
Input Power Allocated to Servers	= 0 W
Input Power Allocated to Chassis Infrastructure	= 51W
Total Input Power Available for Allocation	= 0 W
Standby Input Power Capacity	= 0 W

## getraclog



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

### Description

Displays the CMC log entries. The timestamp begins at midnight, January 1 and increases until the system boots. After the system boots, the system's timestamp is used.

### Usage

```
racadm getraclog [-i]
```

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

For remote RACADM:

```
racadm getraclog [-s <start record>] [-c <count>]
[-m]
```

### Options

Table 2-19 describes the **getraclog** subcommand options.

**Table 2-19. getraclog Subcommand Options**

Open	Description
(none)	Displays the entire CMC log, including the record number, time stamp, source, and description of each event.
-s <start record>	Specifies the starting record used for the display
-c <count>	Specifies the maximum number of entries to be returned.

**Table 2-19. getraclog Subcommand Options**

Open	Description
-i	Displays the number of entries in the CMC log.
-m	Displays one screen of information at a time and prompts the user to continue to next screen (similar to the UNIX <b>more</b> command). Available only through remote RACADM.
-more	Displays one screen of information at a time and prompts the user to continue to next screen (similar to the UNIX <b>more</b> command). Available only through local RACADM.



**NOTE:** The **-A** and **-o** options do not generate additional output and are supported to provide backward compatibility for existing scripts.

### Examples

- ```
racadm getraclog -c 5
```

```
Apr 21 10:17:46 cmc : CMC1: active
Apr 21 10:17:46 cmc : CMC1: AC power up
Apr 21 10:17:48 cmc : CMC1: non redundant
Apr 21 12:17:48 cmc : Login success (username =
root)
Apr 23 23:59:11 cmc : session close PID 3291
succeeds
```
- ```
racadm getraclog -i
```

```
Total Records: 171
```

## getractive



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

### Description

Displays the date and time as currently set on the CMC.

### Usage

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

## Options

Table 2-20 describes the `getractive` subcommand options.

**Table 2-20. `getractive` Subcommand Options**

Option	Description
(None)	Displays the date and time using a format similar to the UNIX <sup>®</sup> date command.
-d	Displays the date and time as a sequence of numeric digits, in the following format: YYYYMMDDhhmmss.
-z	Appends the current active time zone name to the display. For example, PST8PDT (Western United States), 279 (Seoul), 329 (Sydney). For a listing of all time zones supported by CMC, type: <code>racadm setractive -z *</code>
-n	Displays the NTP peer information.

## Examples

- `racadm getractive`  
Wed, 22 Jul 2009 03:46:49 PM
  - `racadm getractive -z`  
Wed, 22 Jul 2009 03:47:10 PM, timezone: CST6CDT
  - `racadm getractive -d`  
20090722154740
  - `racadm getractive -n`  
remote refid st t when poll reach delay offset jitter  
=====
- ```
*ntp-server .LOCL. 1 u 6 64 377 0.383 3123.13 13.429  
LOCAL(0) .LOCL. 10 1 1 64 377 0.000 0.000 0.004
```

## getredundancymode



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

### Description

Displays the redundancy status (Redundant or Non-Redundant) of the CMC.

### Usage

```
racadm getredundancymode
```

### Example

```
racadm getredundancymode
```

```
Redundant
```

## getsel



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

### Description

Displays the system event log (SEL, also called the hardware log) entries. The default output display shows the record number, timestamp, severity, and description of each event.

### Usage

From local RACADM:

- `racadm getsel [-i] [-m <server-n>]`
- `racadm getsel [-s <start record>] [-c <count>] [-m <server-n>] [--more]`

From remote RACADM:

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

## Options

Table 2-21 describes the `getsel` subcommand options.

**Table 2-21. getsel Subcommand Options**

| Option                               | Description                                                                                                                                                                   |
|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-s &lt;start record&gt;</code> | Specifies the starting record used for the display                                                                                                                            |
| <code>-c &lt;count&gt;</code>        | Provides the maximum number of records to display.                                                                                                                            |
| <code>-i</code>                      | Displays the number of total records available.                                                                                                                               |
| <code>-m</code>                      | Displays one screen of information at a time and prompts the user to continue to next screen (similar to the UNIX <b>more</b> command). Available only through remote RACADM. |
| <code>-more</code>                   | Displays one screen of information at a time and prompts the user to continue to next screen (similar to the UNIX <b>more</b> command). Available only through local RACADM.  |

## Example

- `racadm getsel -i`  
Total Records: 28
- `racadm getsel -s 1 -c 1`  
Sun Sep 16 02:51:11 2007 normal Server Blade 12  
Presence module sensor for Server Blade, device  
inserted was asserted

## Example of <server-n>

The `-m <server-n>` subcommand enables you to view the SEL entries on individual servers. This feature is currently available only through the local RACADM.

- `racadm getsel -m server-4 -i`  
Displays the number of SEL entries on server 4.
- `racadm getsel -m server-4`  
Displays all the entries on server 4.
- `racadm getsel -m server-4 -c 3`



Displays only 3 SEL records on server 4.

- `racadm getsel -m server-4 -c 3 -s 4`

Displays the first 3 SEL records on server 4.

- `racadm getsel -m server-4 --more`

Displays 20 SEL records at a time on server 4.

## getsensorinfo



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

### Description

Displays status for the specified sensors.

### Usage

```
racadm getsensorinfo
```

### Examples

```
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
```

```
<senType> <Num> <sensorName> <status> <reading> <units> <lc> <uc>
Temp 1 Ambient_Temp OK 22 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 |

## getslotname

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

### Description

Displays the name of all 16 slots, or of a specified slot (indicated by slot number) in the chassis.

### Usage

```
racadm getslotname
racadm getslotname -i <slot ID>
```

### Options

Table 2-22 describes the **getslotname** subcommand options.

**Table 2-22. getslotname Subcommand Options**

| Option       | Description                                                |
|--------------|------------------------------------------------------------|
| (None)       | Displays the slot name for all 16 slots in the chassis.    |
| -i <slot ID> | Specifies the ID of the slot.<br><b>Legal values:</b> 1–16 |

### Example

- ```
racadm getslotname
<Slot #> <Slot Name>
1      SLOT-01
2      Webserver01
3      WebServer3
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`  
Webserver-1

## getssninfo



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

### Description

Displays information about an active user session, including user name, IP address (if applicable), and session type (for example, serial, SSH, or Telnet), and login date and time. Options allow you to view a list of currently active or pending users and summary session table information. The summary information provides the total number of sessions in each defined Session Manager state:

- Valid
- Available

### Usage

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

### Options

Table 2-23 describes the `getssninfo` subcommand options.

**Table 2-23. getssninfo Subcommand Options**

<b>Option</b>	<b>Description</b>
-u <username>	Limits the printed output to detailed session records for the specified user.
-u *	If an asterisk (*) is given as the user name, all users are listed. Summary information is not displayed when this option is specified.
-A	Suppresses headers and labels in the output.

**Examples**


- racadm getssninfo

Type	User	IP Address	Login Date/Time
SSH	root	10.9.72.252	11/28/2007 23:13:32
KVM	root	169.254.31.30	11/28/2007 18:44:51
SSH	root	10.9.72.252	11/28/2007 23:22:37

- racadm getssninfo -A  
  \Telnet\root\143.166.174.19\05/01/2007 02:13:59
- racadm getssninfo -A -u \*  
  \KVM\root\169.254.31.30\11/28/2007 18:44:51  
  \SSH\root\10.9.72.252\11/28/2007 23:22:37
- racadm getssninfo

Type	User	IP Address	Login Date/Time
SSH	root	10.9.72.252	11/28/2007 23:13:32
KVM	root	169.254.31.30	11/28/2007 18:44:51
SSH	root	2001:db8::a67:1309	11/28/2007 23:22:37

# getsvctag

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

## Description

Displays the service tag information, if present, for one or all modules on the chassis.

## Usage

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

## Options

Table 2-24 describes the **getsvctag** subcommand options.

**Table 2-24. getsvctag Subcommand Options**

Option	Description
(none)	Displays service tags for all modules on the chassis (including the chassis).
-m <module>	Displays the service tag for the specified module. <module> may be one of the following: <ul style="list-style-type: none"><li>• server-<i>n</i> where <i>n</i>=1-16</li><li>• switch-<i>n</i> where <i>n</i>=1-6</li><li>• chassis</li></ul>

## Examples

- ```
racadm getsvctag  
  <module>          <Servicetag>  
  Chassis  
  switch-1          ABC1234  
  switch-2  
  switch-3  
  switch-4  
  switch-5  
  switch-6  
  server-1          abc123
```

```

server-2
server-3          N/A
server-4
server-5
server-6          N/A
server-7          0000014
server-8
server-9          Extension(1)
server-10         N/A
server-11         N/A
server-12
server-13         N/A
server-14
server-15         1234567
server-16         N/A

```

- `racadm getsvctag -m switch-1`  
`<module>`            `<Servicetag>`  
`switch-1`            `ABC1234`

## getsysinfo



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

### Description

Displays information related to the CMC.

### Usage

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

### Options

**Table 2-25. getsysinfo Subcommand Options**

| Option | Description                                  |
|--------|----------------------------------------------|
| -d     | Displays CMC information.                    |
| -c     | Displays chassis information.                |
| -A     | Suppresses headers and labels in the output. |

**Table 2-25. getsysinfo Subcommand Options**

| Option | Description                        |
|--------|------------------------------------|
| -4     | Displays the CMC IPv4 information. |
| -6     | Displays the CMC IPv6 information. |

### Example

- `racadm getsysinfo -c`

```
CMC Information:
CMC Date/Time           = Fri, 01 May 2009 02:33:47
Primary CMC Location   = CMC-1
Primary CMC Version    = 2.10
Standby CMC Version    = 2.10
Last Firmware Update   = Fri, 01 May 2009 02:12:43
Hardware Version       = A01

CMC Network Information:
NIC Enabled             = 1
MAC Address            = 00:1E:4F:1F:53:71
Register DNS CMC Name  = 1
DNS CMC Name           = cmc-frankly
Current DNS Domain     = fwad.lab
VLAN ID                = 1
VLAN Priority           = 0
VLAN Enabled           = 0

CMC IPv4 Information:
IPv4 Enabled           = 1
Current IP Address     = 192.168.7.55
Current IP Gateway     = 192.168.7.1
Current IP Netmask     = 255.255.255.0
DHCP Enabled           = 1
Current DNS Server 1   = 192.168.7.20
Current DNS Server 2   = 0.0.0.0
DNS Servers from DHCP = 1

CMC IPv6 Information:
IPv6 Enabled           = 1
Autoconfiguration Enabled = 1
Link Local Address     = fe80::21e:4fff:fe1f:5371/64
Current IPv6 Address 1 = 2009:123::e48f:9dd8:6f51:a669/64
Current IPv6 Address 2 = fd88:1::21e:4fff:fe1f:5371/64
Current IPv6 Address 3 = fd88:2::21e:4fff:fe1f:5371/64
Current IPv6 Gateway   = fe80::21c:23ff:fe77:6215
Current IPv6 DNS Server 1 = 2009:123::1
Current IPv6 DNS Server 2 =
DNS Servers from DHCPv6 = 1
```

```

Chassis Information:
System Model           = PowerEdge M1000e
System Asset Tag      = 00000
Service Tag           = frankly
Chassis Name          = franklin
Chassis Location      = [UNDEFINED]
Power Status          = ON

```

- `racadm getsysinfo -A`

```

"CMC Information:"
"Tue, 01 May 2007 02:33:47 AM
"1.3 (Build 06.12)" " " "Thu, 01 May 2007 02:12:43" "15"
"143.166.152.39" "143.166.152.1" "255.255.255.0" "1"
"00:11:43:FD:B4:39" "0.0.0.0" "0.0.0.0" "0" "1" "cmc-51186" " "

```

## gettracelog



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

### Description

Displays the diagnostic trace log for the CMC. The default output display shows the record number, timestamp, source, and description. The timestamp begins at midnight, January 1 and increases until the system boots. During system boot, the timestamp displays as `<system boot>`. After the system boots, the system's timestamp is used.

### Usage

From remote RACADM:

```
racadm gettracelog [-i]
```

```
racadm gettracelog [-s <start record>] [-c <count>]
[-m]
```

From local RACADM:

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

```
racadm gettracelog [-i]
```



## Options

Table 2-26 describes the `gettracelog` subcommand options.

**Table 2-26. `gettracelog` Subcommand Options**

| Option | Description                                                                                                                                                                        |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (none) | Displays the CMC trace log.                                                                                                                                                        |
| -s     | Specifies the starting record to display.                                                                                                                                          |
| -c     | Specifies the number of records to display.                                                                                                                                        |
| -i     | Displays the number of entries in the CMC trace log.                                                                                                                               |
| -m     | Displays one screen of information at a time and prompts you to continue to the next screen (similar to the UNIX <code>more</code> command). Available only through remote RACADM. |
| -more  | Displays one screen of information at a time and prompts you to continue to the next screen (similar to the UNIX <code>more</code> command). Available only through local RACADM.  |

## Example

- Display the entire log  

```
racadm gettracelog
```
- Display 5 records in the log  


```
racadm gettracelog -c 5
```

```
Nov 28 04:40:41 cmc syslogd 1.4.1: restart.  
Nov 28 04:40:41 cmc fupmuxd[150]: Start Status Op:  
priv=0x00000000 ID:[01 01 0x00]  
Nov 28 04:40:41 cmc fupmuxd[150]: Active-CMC  
Status: 0x04000000  
Nov 28 04:40:52 cmc webcgi[28776]: postFWUpload:  
rc = 10, file size = 0  
Nov 28 04:40:52 cmc fupmuxd[150]: Start Status Op:  
priv=0x00000000 ID:[01 01 0x00]
```
- Display the number of records in a log  

```
racadm gettracelog -i
```

```
Total Records: 275
```

# getversion

 **NOTE:** To use this subcommand, you must have Login privilege.

## Description

Displays the current software version, model and generation information, and whether or not the target device can be updated.

## Usage


```
racadm getversion [-b | -c] [-m <module>]  
racadm getversion
```

## Options

Table 2-27 describes the getversion subcommand options.

**Table 2-27. getversion Subcommand Options**

| Option         | Description                                                                                                                                                                                                                                                                                                        |
|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (none)         | Displays the version information for all targets or devices.                                                                                                                                                                                                                                                       |
| -m<br><module> | Specifies the module or device for which you want to retrieve the version information.<br><br><module> is one of the following: <ul style="list-style-type: none"><li>• server-<i>n</i> where <i>n</i> = 1-16. For example, server-1.</li><li>• cmc-<i>n</i> where <i>n</i>= 1 or 2. For example, cmc-2.</li></ul> |
| -c             | Displays the server's current CPLD version.                                                                                                                                                                                                                                                                        |
| -b             | Displays the server's current BIOS version (default is the iDRAC version).                                                                                                                                                                                                                                         |

 **NOTE:** The -b and -c options are not available for CMC modules.

## Example

- ```
racadm getversion -m server-15  
  
<server> <iDRAC version> <model name> <Gen> <Updatable>  
server-15 2.00(Build 10) PowerEdgeM605 iDRAC N
```

- `racadm getversion`

---

<Server>	<iDRAC Version>	<Blade Type>	<Gen>	<Updatable>
server-2	1.50	PowerEdgeM600	iDRAC	Y
server-3	2.10	PowerEdgeM610	iDRAC6	Y
server-4	1.50	PowerEdgeM605	iDRAC	Y
<CMC>	<CMC Version>			<Updatable>
cmc-1	2.10.X06.200906 080825			Y

---

- `racadm getversion -c`

---

<Server>	<CPLD Version>	<Blade Type>
server-1		PowerEdgeM600
server-2		PowerEdgeM805
server-5	1.0.0	PowerEdgeM710

---

- `racadm getversion -b`

---

<Server>	<BIOS Version>	<Blade Type>
server-1	2.0.0	PowerEdgeM605
server-2	1.1.0	PowerEdgeM805
server-5	1.1.0	PowerEdgeM710

---

## help and help <command>



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

### Description

The **help** command lists all of the subcommands you can use with the `racadm` command and a one-line description of each subcommand.

`help <command>` displays the syntax for the specified command.



**NOTE:** You can also use the `?` and `? <command>` commands to obtain the same information.

## Usage

```
racadm help
```

```
racadm help <subcommand>
```

## Examples

- ```
racadm help getsysinfo
```

```
getsysinfo -- display general CMC and system information
```

Usage:

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

```
-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
```

## ifconfig



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

Display network interface information.

## Usage

```
racadm ifconfig
```

## Examples

```
racadm ifconfig
```

```
eth0      Link encap:Ethernet  HWaddr 00:55:AB:39:10:0F  
          inet addr:10.35.155.160  Bcast:10.35.155.25
```

```
5  Mask:255.255.255.0
      UP BROADCAST RUNNING MULTICAST  MTU:1500  M
etric:1
      RX packets:457405 errors:0 dropped:0 overru
ns:0 frame:0
      TX packets:16321 errors:0 dropped:0 overrun
s:0 carrier:0
      collisions:0 txqueuelen:0
      RX bytes:51383270 (49.0 MiB)  TX bytes:6573
645 (6.2 MiB)
```

## krbkeytabupload



**NOTE:** This subcommand is available only through remote RACADM version 6.1.

### Description

Uploads a Kerberos Keytab to the CMC.

### Usage

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

**Table 2-28. krbkeytabupload Subcommand Options**

| Option | Description                                                           |
|--------|-----------------------------------------------------------------------|
| -f     | Specifies the source filename on the local filesystem to upload from. |

## netstat



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

### Description

Display routing table and network statistics.



**NOTE:** If IPv6 is enabled, CMC also displays the IPv6 routes.

### Usage

```
racadm netstat
```

## Examples

```
racadm netstat
```


```
Kernel IP routing table
```

---

| Destination | Gateway     | Genmask       | Flags | MSS | Window | irtt | Iface |
|-------------|-------------|---------------|-------|-----|--------|------|-------|
| 10.35.155.0 | 0.0.0.0     | 255.255.255.0 | U     | 0   | 0      | 0    | eth0  |
| 0.0.0.0     | 10.35.155.1 | 0.0.0.0       | UG    | 0   | 0      | 0    | eth0  |

---

## ping

 **NOTE:** To use this subcommand, you must have Administrator privilege.

### Description

Send ICMP echo packets to a destination on the network.

### Usage

```
racadm ping <IP address>
```


### Examples

```
racadm ping 10.9.72.252
```

```
PING 10.9.72.252 (10.9.72.252): 56 data bytes
64 bytes from 10.9.72.252: icmp_seq=0 ttl=121 time=2.9 ms
```

```
--- 10.9.72.252 ping statistics ---
1 packets transmitted, 1 packets received, 0 percent
packet loss
round-trip min/avg/max = 2.9/2.9/2.9 ms
```

## ping6

 **NOTE:** To use this subcommand, you must have Administrator privilege.

## Description

Send ICMP echo packets to a destination on the network.

## Usage

```
racadm iping6 <IP address>
```

where <IP address> is the IPv6 address of the remote endpoint to ping.

## Examples

```
racadm iping6 10.9.72.254
```

```
IPING6 10.9.72.254 (10.9.72.254): 56 data bytes  
64 bytes from 10.9.72.254: icmp_seq=0 ttl=121 time=2.9  
ms
```

```
--- 10.9.72.254 ping statistics ---  
1 packets transmitted, 1 packets received, 0 percent  
packet loss  
round-trip min/avg/max = 2.9/2.9/2.9 ms
```

# racdump



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

Displays the comprehensive chassis status and configuration state information, as well as historic event logs. Used for post deployment configuration verification and during debugging sessions.

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

| Subsystem                        | RACADM Command |
|----------------------------------|----------------|
| General System/RAC information   | getsysinfo     |
| Session information              | getssinfo      |
| Sensor information               | getsensorinfo  |
| Switches information (IO Module) | getioinfo      |

| <b>Subsystem</b>                           | <b>RACADM Command</b> |
|--------------------------------------------|-----------------------|
| 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                              | gettraclog            |
| System event log                           | getsel                |

### Usage

```
racadm racdump
```

### Example

```
racadm racdump
```

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

```
CMC Information:
```

```
CMC Date/Time           =
Wed, 28 Nov 2007 11:55:49 PM
Primary CMC Version     = X08
Standby CMC Version     = N/A
Last Firmware Update    = Wed Nov 21 21:37:56 2007
Hardware Version        = 2
Current IP Address      = 10.35.155.160
Current IP Gateway      = 10.35.155.1
Current IP Netmask      = 255.255.255.0
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



**NOTE:** To use this subcommand, you must have Administrator privilege.

### Description

Issues a reset to the CMC. The reset event is written into the CMC log.



**CAUTION:** When you issue a `racreset` subcommand, the CMC may require up to one minute to return to a usable state.

### Usage

```
racadm racreset
```

### Options

No options.

### Example

- `racadm racreset`

Executes a reset sequence on the CMC.

## racresetcfg



**NOTE:** To use this subcommand, you must have **Administrator** privilege.



**NOTE:** It is recommended that you power off the chassis (using the `chassisaction` command) before running this command. This ensures that your servers and chassis infrastructure reflect the new default values.

### Description

Removes all database property entries on the CMC or iKVM and restores the default factory configuration. After restoring the database properties, the CMC resets automatically. The iKVM also resets automatically when `racresetcfg` is used to restore its default properties.



**CAUTION:** This command deletes your current CMC configuration and resets the CMC and serial configuration to the original 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 issue `racresetcfg` from a network client (for example, a supported Web browser or Telnet/SSH), you must use the default IP address.

### Usage

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

### Options

Table 2-29 describes the `racresetcfg` subcommand options.

**Table 2-29. racresetcfg Subcommand Options**


| Option                         | Description                                                                                                                                                                                                                                                                                                   |
|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-m &lt;module&gt;</code> | Specifies the module whose database properties you want to reset.<br><br><module> may be any of the following: <ul style="list-style-type: none"><li>• <code>chassis</code></li><li>• <code>kvm</code></li><li>• <code>server-n</code> where <code>n=1 - 16</code></li></ul><br>Default: <code>chassis</code> |

### Example

```
racadm racresetcfg -m kvm
```

The configuration has initiated restoration to factory defaults.

## remoteimage

 **NOTE:** To use this subcommand, you must have Administrator privilege.

### Description

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

### Usage

```
racadm remoteimage -action -servers <options>
```

**Table 2-30. remoteimage Subcommand Options**

| Option   | Description                                                                                                                                                                                                                                            |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -action  | Only one of the following actions is allowed: <ul style="list-style-type: none"><li>• -c — Connects a remote image</li><li>• -d — Disconnects a remote image</li><li>• -e — Deploys a remote image</li><li>• -s — Displays connection status</li></ul> |
| -servers | Only one of the following actions is allowed: <ul style="list-style-type: none"><li>• -m &lt;server-<i>n</i>&gt; — Where <i>n</i> is 1 to 16</li><li>• -a — For slots with servers present</li></ul>                                                   |

**Table 2-30. remoteimage Subcommand Options**

| Option                 | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <i>&lt;options&gt;</i> | <p>Only apply to connect and deploy actions:</p> <ul style="list-style-type: none"> <li>• -u — user name</li> <li>• -p — password</li> <li>• -l — image path, use single quotes around the string</li> </ul> <p>The image path can be on a Windows SMB mounted drive or a Linux/Unix NFS mounted drive.</p> <p>SMB mounted path: <i>//&lt;ipaddress or domain name&gt;/&lt;share_name&gt;/&lt;path_to_image&gt;</i></p> <p>NFS mounted path: <i>&lt;ipaddress&gt;:/&lt;path_to_image&gt;</i></p> <p>The extension of <i>&lt;path_to_image&gt;</i> must be either <i>.iso</i> or <i>.img</i>.</p> |

**Example**

For SMB:

```
racadm remoteimage -c -a -l
'//192.168.0.180/dev/floppy.img' -u root -p calvin
```

For NFS:

```
racadm remoteimage -c -a -l
'192.168.0.180:/dev/floppy.img' -u root -p calvin
```

**serveraction**

**NOTE:** To use this subcommand, you must have **Administrator** privilege.

**Description**

Executes a server reset, power-up, power-down, or powercycle on the specified server.

**Usage**

```
racadm serveraction [-m <server-n>] <action>
racadm serveraction [-a] <action>
```

## Options

Table 2-31 describes the **serveraction** subcommand options.

**Table 2-31. serveraction Subcommand Options**

| Option                      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>-m server-n</code>    | Specifies the server by its slot number (1–16) in the chassis. For example, <code>server-2</code> .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <code>-a</code>             | The specified power action is performed on all servers                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <code>&lt;action&gt;</code> | Specifies the action. <code>&lt;action&gt;</code> may be one of the following: <ul style="list-style-type: none"><li>• <code>powerdown</code> — Powers down the server.</li><li>• <code>powerup</code> — Powers up the server.</li><li>• <code>powercycle</code> — Issues a power-cycle operation on the server.</li><li>• <code>hardreset</code> — Performs a reset (reboot) operation on the server.</li><li>• <code>graceshutdown</code> — Shuts down the server gracefully.</li><li>• <code>powerstatus</code> — Displays current power status (Online, Off) of the server.</li></ul> |

### Example

- ```
racadm serveraction -m server-1 powerup
```

  
Server power operation successful.
- ```
racadm serveraction -m server-9 powerup
```

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

## setassettag



**NOTE:** To use this subcommand, you must have Administrator privilege.

### Description

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

## Usage

```
racadm setassettag -m chassis <asset tag>
```

## Options

Table 2-32 describes the `setassettag` subcommand options.

**Table 2-32. setassettag Subcommand Options**

| Option      | Command                                                                                                                                                                                                |
|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| -m <module> | Specifies the module whose asset tag you want to set.<br>Legal value: chassis<br><b>NOTE:</b> Because there is only one legal value, you can obtain the same output if you do not include this option. |

## Example

Input:

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

or

```
racadm setassettag 783839-33
```

The asset tag was changed successfully.

## setchassisname



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

Sets the name of the chassis in the LCD.

## Usage


```
racadm setchassisname <name>
```

## Example

```
racadm setchassisname dellchassis-1
```


The chassis name was set successfully.


# setflexaddr

 **NOTE:** To use this subcommand, you must have Chassis Configuration Administrator privilege.

## Description

Enables/disables FlexAddress on a particular slot/fabric.

 **NOTE:** 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 will return an error.

 **NOTE:** The server must be powered off to change the slot state. All servers must be powered off to change the fabric state.

## Usage

```
racadm setflexaddr [-i <slot#> <state>]  
[-f <fabricName> <state>]
```

<slot#> = 1 to 16

<fabricName> = A, B, C

<state> = 0 or 1

where 0 is disable and 1 is enable

## Options

Table 2-33 describes the **setflexaddr** subcommand options.

**Table 2-33. setflexaddr Subcommand Options**

| Option                        | Description                                            |
|-------------------------------|--------------------------------------------------------|
| -i <slot#><br><state>         | Enables/disables FlexAddress for the specified slot.   |
| -f<br><fabricName><br><state> | Enables/disables FlexAddress for the specified fabric. |


## Example

- `racadm setflexaddr -i 1 0`



- ```
Slot 1 FlexAddress state set successfully
```
- `racadm setflexaddr -f A 1`  
Fabric A FlexAddress state set successfully
  - `racadm setflexaddr -f idrac 1`

## setled

 **NOTE:** To use this subcommand, you must have **Administrator** privilege.

### Description

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

### Usage

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

### Options

Table 2-34 describes the **setled** subcommand options.

**Table 2-34. setled Subcommand Options**

Option	Description
-m <module>	Specifies the module whose LED you want to configure.  <module> can be one of the following: <ul style="list-style-type: none"> <li>• server-<i>n</i> where <i>n</i>=1-16</li> <li>• switch-<i>n</i> where <i>n</i>=1-6</li> <li>• cmc-active</li> <li>• chassis</li> </ul>
-l <ledstate>	Specifies whether the LED should blink.  <ledstate> can be one of the following: <ul style="list-style-type: none"> <li>• 0 — no blinking</li> <li>• 1 — blinking</li> </ul>


### Example

- `racadm setled -m server-1 -l 1`

LED state was set successfully.

- `racadm settled -m server-9 -1 1`  
ERROR: Server in slot 9 is an extension of the server in slot 1.

## setniccfg

 **NOTE:** To use this subcommand, you must have Administrator privilege.

### Description

Sets the IP configuration for the specified module.

### Usage

```
racadm setniccfg [-m <module>] [-d] [-o] [-6] [-s  
<ipaddress> <subnetmask> <gateway>] [-k <speed>  
<duplex>]
```

```
racadm setniccfg [-m <module>] -d
```

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

```
racadm setniccfg [-m <module>] -v [<vlan id> <vlan  
priority>]
```

```
racadm setniccfg [-m <module>] -o
```

```
racadm setniccfg [-m <module>] -k [<speed> <duplex>]
```

### Options

Table 2-35 describes the `setniccfg` subcommand options.

**Table 2-35. setniccfg Subcommand Options**

Option	Description
-m <module>	<p>Specifies the module for which you want to set the IP configuration.</p> <p>&lt;module&gt; can be any of the following:</p> <ul style="list-style-type: none"><li>• server-<i>n</i> where <i>n</i>=1-16</li><li>• switch-<i>n</i> where <i>n</i>=1-6</li><li>• chassis</li></ul> <p>If the -m option is excluded, the module defaults to chassis.</p>
-d	Enables DHCP for the Ethernet management port (default is DHCP enabled).
-6	Displays the IPv6 information.
-s	<p>Enables static IP settings by specifying the IP address, subnet mask, and gateway. &lt;ipAddress&gt;, &lt;netmask&gt;, and &lt;gateway&gt; must be typed as dot-separated strings.</p> <p>If this option is not supplied, the existing static settings are used.</p>
-v	<p>Arguments:</p> <ul style="list-style-type: none"><li>• &lt;vlan id&gt; = 1 to 4000 (1 and 4000 inclusive), 4021 to 4094 (4021 and 4094 inclusive)</li><li>• &lt;vlan priority&gt; = 0 to 7 (0 and 7 inclusive)</li><li>• (no value supplied): Remove the vlan tag</li></ul>
-o	Disables the Ethernet management port completely.
-k	<p>Specifies the speed and duplex for the NIC.</p> <p>Arguments:</p> <ul style="list-style-type: none"><li>• &lt;speed&gt; = 10, 100</li><li>• &lt;duplex&gt; = half, full</li><li>• (no value supplied): Autonegotiate</li></ul>

## Examples

- `racadm setniccfg -m server-1 143.166.152.39 143.166.152.1 255.255.255.0`  
OK
- `racadm setniccfg -m server-9 143.166.152.39 143.166.152.1 255.255.255.0`  
ERROR: Server in slot 9 is an extension of the server in slot 1.
- `racadm setniccfg -k 100 full`  
Speed and Duplex settings modified successfully.

## setractime



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

### Description

Sets the date and time on the CMC.

### Usage

```
racadm setractime -d <yyyymmddhhmmss.mmmmmmssoff>
```

```
racadm setractime -l <yyyymmddhhmmss> [-z <zone>]
```

### Options

Table 2-36 describes the **setractime** subcommand options.

**Table 2-36. setrctime Subcommand Options**

<b>Option</b>	<b>Description</b>
-d	Sets the time in the string <i>yyyymmddhhmmss.mmmmmmssoff</i> where: <ul style="list-style-type: none"><li>• <i>YYYY</i> is a the year</li><li>• <i>mm</i> is the month</li><li>• <i>dd</i> is the day</li><li>• <i>hh</i> is the hour</li><li>• <i>mm</i> is the minutes</li><li>• <i>ss</i> is the seconds</li><li>• <i>mmmmmm</i> is the number of microseconds</li><li>• <i>s</i> is a + (plus) sign or a - (minus) sign, which indicates the sign of the offset</li><li>• <i>off</i> is the offset in minutes</li></ul> <p><b>NOTE:</b> The <i>off</i> is the offset in minutes from GMT and must be in 15-minute increments.</p>
-z <zone>	Sets the time zone by name or index, or lists possible time zones. For example, PST8PDT (Western United States), 279 (Seoul), 329 (Sydney). <zone> may be: <ul style="list-style-type: none"><li>• ? - lists the major timezone names/prefixes</li><li>• * - lists every time zone index and name</li><li>• prefix* - lists every time zone index and name that matches the prefix</li><li>• index - sets the time zone to the given time zone index</li><li>• name - sets the time zone to the given time zone name</li></ul>

**Table 2-36. setractime Subcommand Options**

Option	Description
-l	Sets the local date and time in the string <i>yyyymmddhhmmss</i> where: <ul style="list-style-type: none"><li>• <i>yyyy</i> is a year</li><li>• <i>mm</i> is the month</li><li>• <i>dd</i> is the day</li><li>• <i>hh</i> is the hour</li><li>• <i>mm</i> is the minute</li><li>• <i>ss</i> is the second</li></ul> <p><b>NOTE:</b> Setting the time using the -l and -z options is recommended. This command format allows the CMC to fully support local time zones, including the ability to automatically adjust the CMC time to the local Daylight Savings Time.</p>

### Example

The `setractime` subcommand supports dates ranging from 1/1/1970 00:00:00 through 12/31/2030 23:59:59. To set the date to October 24, 2007 at 3:02:30 PM PST:

```
racadm setractime -l 20071024150230 -z PST8PDT
```

The time was set successfully.

## setslotname



**NOTE:** To use this subcommand, you must have **Administrator** privilege.



**NOTE:** See the "Editing Slot Names" section in the *Dell Chassis Management Controller User Guide* for rules for selecting slot names.

### Description

Sets the name of a slot in the chassis.

### Usage

```
racadm setslotname -i <slotID> <slotname>
```

## Options

Table 2-37 describes the `setslotname` subcommand options.

**Table 2-37. setslotname Subcommand Options**

Option	Description
<code>&lt;slotID&gt;</code>	Indicates the location of the slot in the chassis. <b>Legal values:</b> 1–16
<code>&lt;slotname&gt;</code>	The new name to assign to the slot.

## Example

```
racadm setslotname -i 3 mserver3
```

The slot name was set successfully.

# setsysinfo



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

Sets the name or location of the chassis.

## Usage

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

## Option

Table 2-38 describes the `setsysinfo` subcommand options.

**Table 2-38. setsysinfo Subcommand Options**

Option	Description
<code>&lt;string&gt;</code>	Indicates the N-byte ASCII chassis name or location.
<code>-c</code>	Sets the chassis name or location.

## Example

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

The chassis name was set successfully.

## sshpkauth

### Description

Enables you to upload up to 6 different SSH public keys, delete existing keys, and view the keys already in the CMC.



**NOTE:** This feature supports only SSH2-RSA, SSH2-DSA, and 768-bit to 4096-bit encryption.

### Usage

- `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 file>`
- `racadm sshpkauth -v -i svcacct -k <key index>`
- `racadm sshpkauth -d -i svcacct -k <key index>`

### Options

**Table 2-39. sshpkauth Subcommand Options**

Option	Description
-k <index>	Enables you to view all existing public key entries and associated user privilege levels for these keys. <index> can be from 1 to 6 (or all for -v / -d options) to assign the PK key being uploaded.
-t	Specifies the key text for the PKA key.
-f	Specifies the file containing the key text to upload. <b>NOTE:</b> This option is supported only on remote RACADM version 6.1.
-d	Deletes a key and the privilege for index provided.
-p	Specifies the privilege level to be given for the key. Also specifies the bit masks for user privileges. For more information on bit masks, see Table 3-1.
-i	Specifies the index for the user. For CMC, it must be <code>svcacct</code> .



**Table 2-39. sshpkauth Subcommand Options**

Option	Description
-v	Enables you to view privilege and key text.

### Example

- View all existing public key entries and associated user privilege levels for these keys  

```
racadm sshpkauth -v -i svcacct -k all
```
- View just one particular key  

```
racadm sshpkauth -v -i svcacct -k 1
```
- Specify the key text for the PKA key  

```
racadm sshpkauth -i svcacct -k 1 -p 0xffff -t ""
```
- Specify the file containing the key text to upload  

```
racadm sshpkauth -i svcacct -k 1 -p 0xffff -f  
public_key_file
```
- Delete a key and the privilege for index 1  

```
racadm sshpkauth -d -i svcacct -k 1
```
- Delete all keys  

```
racadm sshpkauth -d -i svcacct -k all
```

## sslcertdownload



**NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description

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

### Usage

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

## Options

Table 2-40 describes the `sslcertdownload` subcommand options.

**Table 2-40. sslcertdownload Subcommand Options**

Option	Description
-t	Specifies the type of certificate you want to download: 1 — server certificate 2 — Microsoft Active Directory certificate
-f	Specifies the local file path and file name where you want to save the certificate.

## Restrictions

The `sslcertdownload` subcommand can only be executed from a remote client.

## Example

```
racadm sslcertdownload -t 1 -f c:\cert\cert.cer
```

Certificate successfully downloaded from the CMC.



**NOTE:** For more information on managing SSL certificates, see the “Securing CMC Communications Using SSL and Digital Certificates” section in the *Dell Chassis Management Controller User Guide*.

## sslcertupload



**NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

## Description

Uploads a custom SSL server or certificate authority-signed certificate from the client to the CMC.

## Usage

- `racadm sslcertupload -t <type> -f <filename>`
- `racadm sslcertupload -f <server cert file> -k <server private key file> -t 6`

## Options

Table 2-41 describes the `sslcertupload` subcommand options.

**Table 2-41. sslcertupload Subcommand Options**

Option	Description
<code>-t &lt;type&gt;</code>	Specifies the type of certificate to upload: 1 — Server certificate 2 — Active Directory certificate 5 — Kerberos Keytab 6 — Server certificate and key
<code>-f &lt;filename&gt;</code>	Specifies the file name on the local file system from which to upload.
<code>-k</code>	Specifies the optional source file name for private key when using type 6.

## Restrictions

The `sslcertupload` subcommand can only be executed from remote RACADM version 6.1.

## Example

```
racadm sslcertupload -t 1 -f c:\cert\cert.cer
```

Certificate successfully uploaded to the CMC.



**NOTE:** For more information on managing SSL certificates, see the “Securing CMC Communications Using SSL and Digital Certificates” section in the *Dell Chassis Management Controller User Guide*.

## sslcertview



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

Displays the SSL server or certificate authority-signed certificate that exists on the CMC.

## Usage

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

## Options

Table 2-42 describes the `sslcertview` subcommand options.

**Table 2-42. sslcertview Subcommand Options**

Option	Description
-t <type>	Specifies the type of certificate to view — either the Microsoft Active Directory certificate or server certificate. 1 — server certificate 2 — Microsoft Active Directory certificate
-A	Suppresses headers and labels in the output.

## Examples

```
racadm sslcertview -t 1
```

```
Serial Number           : 00


Subject Information:
Country Code (CC)      : US
Locality (L)           : Round Rock
Organization (O)       : Dell Inc.
Organizational Unit (OU) : OpenCMC Group
Common Name (CN)       : CMCdefault

Issuer Information:
Country Code (CC)      : US
Locality (L)           : Round Rock
Organization (O)       : Dell Inc.
Organizational Unit (OU) : OpenCMC Group
Common Name (CN)       : CMCdefault

Valid From              : Nov  6 01:23:03 2007 GMT
Valid To                : Nov  3 01:23:03 2017 GMT
```

 **NOTE:** For more information on managing SSL certificates, see the “Securing CMC Communications Using SSL and Digital Certificates” section in the *Dell Chassis Management Controller User Guide*.

## sslcsrgen

 **NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description


Generates and downloads an SSL certificate signing request (CSR) from the CMC to your management station or shared network. You can use the CSR to create a custom SSL certificate for transactions on the CMC.


### Usage

```
racadm sslcsrgen [-g]
```

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

```
racadm sslcsrgen [-s]
```

 **NOTE:** The -f option is supported from the remote RACADM interface only, and not from serial/telnet/SSH console.

 **NOTE:** If you generate a CSR without using the -f option, you must download the CSR to create a matching certificate.

### Options


Table 2-43 describes the **sslcsrgen** subcommand options.

**Table 2-43. sslcsrgen Subcommand Options**

Option	Description
-g	Generates a new CSR. The -g option cannot be used with the -s option.


**Table 2-43. sslcsrgen Subcommand Options**

Option	Description
-s	Returns the status of a CSR generation process: <ul style="list-style-type: none"><li>• CSR was generated successfully.</li><li>• CSR does not exist.</li><li>• CSR generation in progress.</li></ul> The -s option cannot be used with the -g option.
-f <filename>	Specifies the filename where the CSR will be downloaded. Can be used without the -g option. In this case, no new CSR is generated and the existing CSR is downloaded.


 **NOTE:** If no options are specified, the default option is -g. That is, a CSR is generated and stored on the CMC's local file system.

### Example

- `racadm sslcsrgen -s`  
CSR generation in progress.
- `racadm sslcsrgen -g -f c:\csr\csrtest.cer`  
The csr was generated successfully.

 **NOTE:** For more information on managing SSL certificates, see the “Securing CMC Communications Using SSL and Digital Certificates” section in the *Dell Chassis Management Controller User Guide*.

## sslresetcfg

 **NOTE:** To use this subcommand, you must have **Chassis Configuration Administrator** privilege.

### Description

Regenerates the self-signed certificate used by the CMC Web GUI. The certificate takes effect 30 seconds after the command is entered.

### Usage

```
racadm sslresetcfg
```

## Example

- `racadm sslresetcfg`

Certificate generated successfully and webserver restarted.



**NOTE:** For more information on managing SSL certificates, see the “Securing CMC Communications Using SSL and Digital Certificates” section in the *Dell Chassis Management Controller User Guide*.

## testemail



**NOTE:** To use this subcommand, you must have **Test Alert User** privilege.

### Description

Sends a test email from the CMC to a specified destination.



**NOTE:** This command is valid only if email alerts are enabled on the CMC. For more information about email alerts, see the “Configuration Email Alerts” section in the *Dell Chassis Management Controller User Guide*.

### Usage

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

### Option

Table 2-44 describes the **testemail** subcommand options.

**Table 2-44. testemail Subcommand Options**

Option	Description
<code>-i &lt;index&gt;</code>	Specifies the index of the email alert to test.

### Example

```
racadm testemail -i 1
```

Test email sent successfully.

## testfeature



**NOTE:** To use this subcommand, you must have **Test Alert User** privilege.

## Description

Generic test command consisting of several sub-commands that allow you to verify the configuration parameters of a specific feature. This command tests Active Directory configuration using simple authentication (user name and password) or Kerberos authentication (single sign-on or Smart Card login).

The **testfeature** command when executed performs the following:

- 1 Checks command syntax
- 2 Verifies Active Directory enabled
- 3 Verifies if the SSL upload certificate file exists
- 4 Verifies if the SSL certificate signing request file exists
- 5 If test “AD” the test skips steps 4 -8
- 6 Verifies that either single sign-on or smart card is enabled
- 7 Verifies the existence of a keytab file
- 8 Verifies the existence of an internal Kerberos configuration file
- 9 The CMC acquires a Kerberos TGT
- 10 The CMC binds to Active Directory Server
- 11 The CMC queries Active Directory for user privileges

## Usage

```
testfeature -f ad -u <username> -p <password>
```

```
testfeature -f adkrb -u <username>
```

## Options

Table 2-45 describes the **testfeature** subcommand options.



**Table 2-45. testfeature Subcommand Options**

Option	Description
-f	Specifies the feature name. <b>testfeature</b> supports the following features: <ul style="list-style-type: none"> <li>• ad — Tests Active Directory configuration using simple authentication (user name and password)</li> <li>• adkrb — Tests Active Directory configuration using Kerberos authentication</li> </ul>
-u <username>	The Active Directory and Kerberos features require a user name. The user name is specified in the following format: user_name@domain_name.
-p <password>	The password for the Active Directory account.

**Example**

- `testfeature -f ad -u root -p calvin`  
**SUCCESSFUL: User permissions are xxxxxppp**  
The last three digits are the user's permissions.
- `testfeature -f adkrb -u root`  
**SASL/GSSAPI authentication started**  
**SASL username: HTTP/cmc-781000e.bioshock.local@BIOSHOCK.LOCAL**  
**SASL SSF: 0**  
**SASL/GSSAPI authentication started**  
**SASL username: HTTP/cmc-781000e.bioshock.local@BIOSHOCK.LOCAL**  
**SASL SSF: 0**  
**SUCCESSFUL: User permissions are 80000fff**

**testtrap****NOTE:** To use this subcommand, you must have **Test Alert User** privilege.

## Description

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



**NOTE:** This command is valid only if SNMP alerts are enabled on the CMC. For more information about SNMP alerts, see the "Configuring SNMP and E-mail Alerting" section in the *Dell Chassis Management Controller User Guide*. For information on enabling and configuring traps, see "cfgTraps".

## Usage

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

## Options

Table 2-46 describes the **testtrap** subcommand options.

**Table 2-46. testtrap Subcommand Options**

Option	Description
-i <index>	Specifies the index of the trap configuration to use for the test. Legal values: 1-4

## Example

```
racadm testtrap -i 4
```

Test trap sent successfully.

# traceroute



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

## Description

Traces a route using IP to a destination on the network.

## Usage

```
racadm traceroute <IP address>
```

## Examples

```
racadm traceroute 192.168.0.1
```

```
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



**NOTE:** To use this subcommand, you must have **Administrator** privilege.

### Description

Traces a route using IPv6 to a destination on the network.

### Usage

```
racadm traceroute6 <IPv6 address>
```

### Examples

```
racadm traceroute6 fd01::1
```

```
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
```



# CMC Property Database Group and Object Definitions

The CMC property database contains the configuration information for the CMC. Data is organized by associated object, and objects are organized by object group. The IDs for the groups and objects that the property database supports are listed in this section.

Use the group and object IDs with the RACADM subcommands **config** (see "config" on page 22) and **getconfig** (see "getconfig" on page 37) to configure the CMC. The following sections describe each object and indicate whether the object is readable, writable, or both.

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

## Displayable Characters

Displayable characters include the following set:

abcdefghijklmnopqrstuvwxyz

ABCDEFGHIJKLMNPOQRSTUVWXYZ

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

## idRacInfo (read only)



**NOTE:** Use this object with the **getconfig** subcommand.



**NOTE:** To use this object property, you must have **CMC Login User** privilege.

### Description

Displays information for CMC properties. **Read only.**

## Synopsis

```
racadm getconfig -g idRacInfo
```

### # idRacType

Identifies the Remote Access Controller type as the CMC.

### # idRacProductInfo

Uses a text string to identify the product, for example, Chassis Management Controller.

### # idRacDescriptionInfo

A text description of the RAC type.

### # idRacVersionInfo

A string containing the current product firmware version.

### # idRacBuildInfo

The current RAC firmware build version.

### # idRacName

A user-assigned name that identifies the CMC.

## 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
```

# cfgLanNetworking



**NOTE:** Use this object with the `config` or `getconfig` subcommands.



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the `-o` option.

## Description

Displays information for and configures network-related properties. Use the `-m` option to apply this setting to iDRAC.

## Synopsis

```
racadm getconfig -g cfgLanNetworking
```

```
racadm getconfig -g cfgLanNetworking -m server-2
```

## cfgNicEnable

Enables or disables the CMC NIC. If this property is set to 0 (false), the remote network interfaces to the CMC are not accessible, and the CMC is available only through the serial RACADM interfaces.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

## cfgNicIPv4Enable

Enables or disables IPv4 on the CMC. If the property is set to 0 (false), the remote network interfaces to the CMC are not accessible over IPv4.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

## cfgNicIpAddress

Assigns a static IP address to the CMC. This property is used only if `cfgNicUseDhcp` is set to 0 (false).

- **Legal value:** A string representing a valid IP address. For example, 192.168.0.20.

## **cfgNicNetmask**

Assigns a static subnet mask for the CMC IP address. This property is used only if **cfgNicUseDhcp** is set to 0 (false).

- **Legal value:** A string representing a valid subnet mask. For example, 255.255.255.0.

## **cfgNicGateway**

Assigns a static gateway for the CMC IP address. This property is used only if **cfgNicUseDhcp** is set to 0 (false).

- **Legal value:** A string representing a valid gateway. For example, 192.168.0.1.

## **cfgNicUseDhcp**

Enables or disables the use of DHCP (Dynamic Host Configuration Protocol) by the CMC for the NIC. If set to 0, then DHCP is disabled and IP addresses are statically assigned. If set to 1, then DHCP is enabled and IP address are automatically assigned.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 0

## **# cfgNicMacAddress**

**Read only.** MAC Address of the CMC; format: **dd:dd:dd:dd:dd:dd**, where **d** is a hexadecimal digit in range 0 - 9, A - F

## **cfgNicVlanEnable**

Enables or disables the VLAN capabilities of external chassis management network. When you enable the VLAN, all chassis management traffic, including the CMC and all iDRACs, resides on this external VLAN. No iDRAC configuration change is required to use this external management network VLAN.

- **Legal values:** 1 (True), 0 (False)
- **Default:** 0



## **cfgNicVlanId**

Specifies the VLAN ID for the external chassis management network VLAN configuration. This property is valid only if **cfgNicVlanEnable** is set to 1 (enabled).

- **Legal values:** 0–4094
- **Default:** 0

## **cfgNicVlanPriority**

Specifies the VLAN priority for the external chassis management network VLAN configuration. This property is only valid if **cfgNicVlanEnable** is set to 1 (enabled).

- **Legal values:** 0–7
- **Default:** 0

## **cfgDNSServersFromDHCP**

Specifies that the DNS server IP addresses should be assigned from the DHCP server on the network.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

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

## **cfgDNSServer1**

Specifies the DNS server 1 IP address. This property is only valid if **cfgDNSServersFromDHCP** is set to 0 (false).

- **Configuration options:** A string representing a valid IP address, for example: 192.168.0.20.



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

## **cfgDNSServer2**

Retrieves DNS server 2 IP address. This parameter is only valid if **cfgDNSServersFromDHCP** is set to 0 (false).

- **Configuration options:** A string representing a valid IP address, for example: 192.168.0.20.
- **Default:** 0.0.0.0



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

### **cfgDNSRacName**

Displays the CMC name. This parameter is used only if `cfgDNSRegisterRac` is set to 1 (true).

- **Configuration options:** String of up to 63 alphanumeric characters and hyphens; must begin with a letter. For example: `cmc-1`, `d-345`.
- **Default:** `cmc-<service tag>`

### **cfgDNSDomainName**

Displays the DNS domain name. This parameter displays only if `cfgDNSDomainNameFromDHCP` is set to 0 (false).

- **Configuration options:** String of up to 254 alphanumeric characters and hyphens; *must begin with a letter*. For example: `p45`, `a-tz-1`, `rid-`.
- **Default:** ""

### **cfgDNSDomainNameFromDHCP**

Specifies whether the CMC DNS domain name is assigned by the network DHCP server.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

This property is used only if `cfgNicUseDhcp` is set to 1 (true), or if both `cfgIPv6Enable` and `cfgIPv6AutoConfig` are set to 1 (true).

If all the following properties are set to 1 (true), the CMC can obtain its DNS domain name from either a DHCP or DHCPv6 server. The network administrator must ensure that the DHCP servers are configured to provide the same DNS domain name to the CMC, otherwise the domain name becomes unpredictable.

- `cfgNicIPv4Enable`

- `cfgNicUseDhcp`
- `cfgIPv6Enable`
- `cfgIPv6AutoConfig`
- `cfgDNSDomainNameFromDHCP`

### **cfgDNSRegisterRac**

Registers the 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.



**NOTE:** For IPv6 addresses, only the DHCPv6 address or static address is registered.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 0

### **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
```

## cfgIPv6LanNetworking



**NOTE:** Use this object with the `config` or `getconfig` subcommands.



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### Description

Displays information for and configures IPv6 network-related properties. Use the `-m` option to apply this setting to the iDRAC.

### cfgIPv6Enable

Enables or disables IPv6 on the CMC. If the property is set to 0 (false), the remote network interfaces to the CMC are not accessible over IPv6.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 0

### cfgIPv6AutoConfig

Enables or disables IPv6 auto configuration. 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.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

### cfgIPv6Address

Assigns a static IPv6 address to the CMC. This property is used only if `cfgIPv6AutoConfig` is set to 0 (false).

- **Legal value:** A string representing a valid IPv6 address. For example, 2001:DB8:1234:5678:9ABC:DE11:C00C:BEEF
- **Default:** ::

### **cfgIPv6PrefixLength**

Assigns a prefix length for the static IPv6 address to the CMC. This property is used only if **cfgIPv6AutoConfig** is set to 0 (false).

- **Legal value:** An integer within the range of 0-128
- **Default:** 64

### **cfgIPv6Gateway**

Assigns a static IPv6 gateway for the static CMC IPv6 address. This property is used only if **cfgIPv6AutoConfig** is set to 0 (false).

- **Legal value:** A string representing a valid IPv6 gateway.
- **Default:** ::

### **cfgIPv6DNSServersFromDHCP6**

Specifies that the DNS server IP addresses must be assigned from the DHCPv6 server on the network. This property is used only if **cfgIPv6AutoConfig** is set to 1 (true).

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

### **cfgIPv6DNSServer1**

Specifies the DNS server 1 IPv6 address. This property is valid only if **cfgIPv6DNSServersFromDHCP6** is set to 0 (false).

- **Legal value:** A string representing a valid IPv6 address. For example, 2001:DB8:1234:5678:9ABC:DE11:C00C:BEEF
- **Default:** ::

### **cfgIPv6DNSServer2**

Specifies the DNS server 2 IPv6 address. This property is valid only if **cfgIPv6DNSServersFromDHCP6** is set to 0 (false).

- **Legal value:** A string representing a valid IPv6 address. For example, 2001:DB8:1234:5678:9ABC:DE11:C00C:BEEF
- **Default:** ::

## Example

```
$ racadm getconfig -g cfgIPv6LanNetworking [-m server-  
<n>]  
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)



**NOTE:** Use this object with the `getconfig` subcommand.



**NOTE:** To use this object property, you must have **CMC Login User** privilege.

### Description

Displays the current CMC NIC properties.

### Synopsis

```
racadm getconfig -g cfgCurrentLanNetworking
```

### # cfgNicCurrentIpAddress

Displays the static IP address to the CMC.

### # cfgNicCurrentNetmask

Displays the static subnet mask for the CMC IP address.

### **# cfgNicCurrentGateway**

Displays the static gateway for the CMC IP address.

### **# cfgNicCurrentDhcpWasUsed**

Indicates whether DHCP is used to configure the NIC:

0— address is static.

1— address was obtained from the DHCP server.

### **# cfgDNSCurrentServer1**

Displays the IP address for DNS server 1.

### **# cfgDNSCurrentServer2**

Displays the IP address for DNS server 2.

### **# cfgDNSCurrentDomainName**

Displays the DNS domain name.


### **# cfgNicCurrentIPv4Enabled**


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.

### **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)**

 **NOTE:** Use this object with the `getConfig` subcommand.

 **NOTE:** To use this object property, you must have **CMC Login User** privilege.

### **Description**

Displays the current CMC IPv6 properties.

### **# cfgCurrentIPv6Enabled**

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.

### **# cfgCurrentIPv6AutoConfigWasUsed**

Indicates whether auto configuration was used to obtain IPv6 settings, including stateless IPv6 address(es) and gateway.

- **Configuration options:** 0 (static addressing is used), 1 (address is obtained from the DHCPv6 server and/or stateless auto configuration)

### **# cfgCurrentLinkLocalAddress**

Displays the current IPv6 link-local address of the CMC.

### **# cfgCurrentIPv6Address1**

Displays the current IPv6 addresses. This property displays up to 15 global IPv6 addresses, including stateful and stateless addresses.

### **# cfgCurrentIPv6Gateway**

Displays the current IPv6 gateway.

### **# cfgCurrentIPv6DNSServersFromDHCP6**

Indicates whether the DNS server addresses are assigned from the DHCPv6 server.

### **# cfgCurrentIPv6DNSServer1**

Displays the IPv6 address for DNS server 1.



## # cfgCurrentIPv6DNSServer2

Displays the IPv6 address for DNS server 2.

### 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=:
```

## cfgRemoteHosts



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### Description

Enables/disables and configures firmware updates, NTP, remote syslogging, and SMTP email alerting. Use the **-m** option to apply this setting to the iDRAC.

### cfgRhostsFwUpdateTftpEnable

Enables or disables CMC firmware updates from a network TFTP server.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

### **cfgRhostsFwUpdateIpAddr**

Specifies the IP address of the network TFTP server that has the CMC firmware image.

**Configuration options:** A string representing a valid TFTP server IP address. For example, 192.168.0.55.

**Default:** 0.0.0.0

### **cfgRhostsFwUpdatePath**

Specifies the TFTP path where the CMC 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 value:** String of up to 255 characters.

### **cfgRhostsSmtServerIpAddr**

Specifies the IP address of the network SMTP server, which transmits email alerts from the CMC if the alerts are configured and enabled.

**Legal value:** A string representing a valid SMTP server IP address. For example, 192.168.0.55.

**Default:** localhost.localdomain

### **cfgRhostsNtpEnable**

Enables or disables the use of the Network Time Protocol (NTP) for date and time synchronization.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 0

### **cfgRhostsNtpServer1**

Specifies the first of three possible NTP servers.

**Legal value:** A string representing a valid NTP server. For example, ntp1.ntp.net. At least one NTP server must be specified; duplicate entries are not allowed.

**Default:** [null]

### **cfgRhostsNtpServer2**

Specifies the second of three possible NTP servers.

**Legal value:** A string representing a valid NTP server. For example, ntp2.ntp.net. At least one NTP server must be specified; duplicate entries are not allowed.

**Default:** [null]

### **cfgRhostsNtpServer3**

Specifies the third of three possible NTP servers.

**Legal value:** A string representing a valid NTP server. For example, ntp3.ntp.net. At least one NTP server must be specified; duplicate entries are not allowed.

**Default:** [null]

### **cfgRhostsNtpMaxDist**

Specifies the NTP maximum distance parameter used to aid in NTP configuration.

**Legal value:** 1-128

**Default:** 16

### **cfgRhostsSyslogEnable**

Enables or disables feature to allow the RAC and SEL logs to be written to up to three remote syslog servers.

- **Configuration options:** 1 (enabled), 0 (disabled)
- **Default:** 0

### **cfgRhostsSyslogPort**

Specifies the network 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).

- **Configuration range:** 1–65535
- **Default:** 514

### **cfgRhostsSyslogServer1**

Specifies the first of three possible remote servers to store the RAC and SEL logs. This setting takes effect only if the **cfgRhostsSyslogEnable** parameter is set to 1 (enabled).

- **Configuration options:** Valid hostname or IPv4 or IPv6 address
- **Default:** [null]

### **cfgRhostsSyslogServer2**

Specifies the second of three possible remote servers to store the RAC and SEL logs. This setting takes effect only if the **cfgRhostsSyslogEnable** parameter is set to 1 (enabled).

- **Configuration options:** Valid hostname or IPv4 or IPv6 address
- **Default:** [null]

### **cfgRhostsSyslogServer3**

Specifies the third of three possible remote servers to store the RAC and SEL logs. This setting takes effect only if the **cfgRhostsSyslogEnable** parameter is set to 1 (enabled).

- **Configuration options:** Valid hostname or IPv4 or IPv6 address
- **Default:** [null]

### **Example**

```
racadm getconfig -g cfgRemoteHosts [-m server-<n>]
cfgRhostsFwUpdateTftpEnable=1
cfgRhostsFwUpdateIpAddr=0.0.0.0
cfgRhostsFwUpdatePath=
cfgRhostsSmtplibServerIpAddr=localhost.localdomain
cfgRhostsNtpEnable=0
cfgRhostsNtpServer1=
cfgRhostsNtpServer2=
cfgRhostsNtpServer3=
cfgRhostsNtpMaxDist=16
cfgRhostsSyslogEnable=0
cfgRhostsSyslogPort=514
```

```
cfgRhostsSyslogServer1=  
cfgRhostsSyslogServer2=  
cfgRhostsSyslogServer3=
```

## cfgUserAdmin



**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 **UserAdminEnable** to 1, the right most digit of the **UserAdminPrivilege** will also become 1. On the other hand, if you change the right most digit of the **UserAdminPrivilege** to 0, the value of **UserAdminEnable** will become 0.



**NOTE:** Use this object with the **config** or **getconfig** subcommands. You must supply an index group number to use these commands as follows: **-i <index group>**



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Displays information for and configures CMC users.

### # cfgUserAdminIndex

**Read only.** Displays the index number. The index number is used to specify a unique group name. Only valid for indexed groups. The index is specified by a decimal integer from 1–16.

### cfgUserAdminEnable

Enables or disables an individual user.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 0

## cfgUserAdminUserName

Displays/sets the name of the user for the specified index name. The user index is created by writing a string into this name field if the index is empty. Writing a string of double quotation marks ("" ) deletes the user at that index. The string cannot contain "/" (forward slash), "\" (backslash), "." (period), "@" ("at"), or quotations marks.

**Legal value:** String of up to 16 characters

## # cfgUserAdminPassword

**Write only.** Displays the password for this user index as a series of asterisks (\*). It cannot be seen or displayed after this property is written.

## cfgUserAdminPrivilege

Specifies the role-based authority privileges for the user. The value is represented as a bitmask that allows for any combination of privileges values. Table 3-1 describes the allowed bit masks. Table 3-2 provides sample privileges bit masks for users with one or more privileges.

- **Configuration options:** 0x0000000-0x0000fff, and 0x0
- **Default:** 0x0000000

### Example

```
racadm getconfig -g cfgUserAdmin -i 1
# cfgUserAdminIndex=1
cfgUserAdminEnable=1
cfgUserAdminUserName=root
# cfgUserAdminPassword=***** (Write-Only)
cfgUserAdminPrivilege=0x00000fff
```

**Table 3-1. Bit Masks for User Privileges**

User Privilege	Privilege Bit Mask
CMC Login User	0x0000001
Chassis Configuration Administrator	0x0000002
User Configuration Administrator	0x0000004

**Table 3-1. Bit Masks for User Privileges (continued)**

User Privilege	Privilege Bit Mask
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

**Table 3-2. Sample Bit Masks for User Privileges**

User Privilege	Privilege Bit Mask
The user is not allowed to access the CMC.	0x00000000
The user can only log in to the CMC and view CMC and server configuration information.	0x00000001
The user can log in to and configure the CMC.	0x00000001 + 0x00000002 = 0x00000003

## cfgEmailAlert



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privileges.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Configures CMC email alerting.

## # **cfgEmailAlertIndex**

Read only. Displays the unique index of an alert instance.

- **Configuration range:** 1–4
- **Default:** This parameter is populated based on the existing instances.

## **cfgEmailAlertEnable**

Enables or disables CMC e-mail alerting.

- **Configuration options:** 1 (enable), 0 (disable)
- **Default:** 0 (disabled)

## **cfgEmailAlertAddress**

Indicates the destination e-mail address for the e-mail alerts.

- **Configuration options:** E-mail address format, with a maximum length of 64 ASCII characters.
- **Default:** [null]

## **cfgEmailAlertEmailName**

Specifies the name or other identifier associated with the destination e-mail address. The e-mail name can refer to an individual, group, location, department, etc.

- **Configuration options:** String of up to 32 characters.
- **Default:** [null]

### **Example**

```
racadm getconfig -g cfgEmailAlert -i 2
# cfgEmailAlertIndex=1
cfgEmailAlertEnable=1
cfgEmailAlertAddress=kfulton@dell.com
cfgEmailAlertName=Kevin Fulton
```

## **cfgSessionManagement**



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





**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### **Description**

Displays current settings for and configures idle timeout properties for Web server, Telnet, SSH, and RACADM sessions. Changes to idle timeout settings take effect at the next login. To disable idle timeout for a connection, set this property to 0. Use the **-m** option to apply this setting to the iDRAC

### **cfgSsnMgtWebserverTimeout**

Specifies the number of seconds after which an idle connection to the Web server is automatically terminated.

- **Configuration range:** 60–10800 seconds
- **Default:** 1800 seconds

### **cfgSsnMgtTelnetIdleTimeout**

Specifies the number of seconds after which an idle Telnet session is automatically terminated.

- **Configuration options:** 0 (no timeout); 60–10800 seconds
- **Default:** 1800seconds

### **cfgSsnMgtSshIdleTimeout**

Specifies the number of seconds after which an idle Secure Shell session is automatically terminated.

- **Configuration options:** 0 (no timeout); 60–10800 seconds
- **Default:** 1800 seconds

### **cfgSsnMgtRacadmTimeout**

Specifies the number of seconds after which an idle remote RACADM connection is automatically terminated.

- **Configuration range:** 10–1920 seconds
- **Default:** 30 seconds

## Example

```
racadm getconfig -g cfgSessionManagement [-m server-  
<n>] -o <object name> <object value>  
cfgSsnMgtWebserverTimeout=0  
cfgSsnMgtTelnetIdleTimeout=0  
cfgSsnMgtSshIdleTimeout=300  
cfgSsnMgtRacadmTimeout=0
```

## cfgSerial



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### Description

Displays information for and configures serial parameters.

### Objects

#### cfgSerialBaudRate

Sets the baud rate on the CMC serial port.

- **Configuration options:** 2400, 4800, 9600, 19200, 28800, 38400, 57600, 115200
- **Default:** 115200

#### cfgSerialConsoleEnable

Enables or disables the CMC serial console interface.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

#### cfgSerialConsoleQuitKey

Specifies the key or key combination that terminates the serial text console. The value can be represented by one of the following:

- **Decimal value** — For example: 95

- Hexidecimal value — For example: 0x12
  - Octal value — For example: 007
  - ASCII value — For example: <Ctrl>a
- ASCII values may be represented using the following Escape Key codes:
- <Ctrl> with any alphabetic character (a-z, A-Z)
  - <Ctrl> with one of the following special characters: [ ] \ ^ \_

**Legal value:** String of up to 4 characters

**Default:** <Ctrl><\>

### **cfgSerialConsoleIdleTimeout**

The maximum number of seconds to wait before an idle serial session is disconnected.

- **Configuration options:** 0 (no timeout), 60–1920 seconds
- **Default:** 1800 seconds

### **cfgSerialConsoleNoAuth**

Enables or disables the CMC serial console login authentication. When enabled (0), a user must authenticate at a login prompt. When disabled (1), the user is logged in automatically.

- **Configuration options:** 0 (enabled), 1 (disabled)
- **Default:** 0

### **cfgSerialConsoleCommand**


Specifies a serial command that is executed after a user logs in to the serial console interface.


- **Configuration options:** A string representing a valid serial command. For example, `connect server-1`.
- **Default:** [null]


### **cfgSerialConsoleColumns**

Specifies the number of columns in the terminal window command line connected to the serial port.

- Configuration range: 0–256
- Default: 0 (equivalent to 80)

 **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.

 **NOTE:** You must log out, then log in again for the changes to take effect.

### **cfgSerialHistorySize**

Specifies the maximum size of the serial history buffer.

- Configuration range: 0–8192
- Default: 8192

### **cfgSerialTelnetEnable**

Enables or disables the Telnet console interface on the CMC.

- Configuration options: 1 (true), 0 (false)
- Default: 0

### **cfgSerialSshEnable**

Enables or disables the secure shell (SSH) interface on the CMC.

- Configuration options: 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
```

## cfgNetTuning



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### Description

Displays and configures CMC network tuning parameters.

### cfgNetTuningNicSpeed

Specifies the speed for the CMC NIC. This property is used only if **cfgNetTuningNicAutoNeg** is set to 0 (disabled).

- Configuration options: 10 or 100
- Default: 100

### cfgNetTuningNicFullDuplex

Specifies the duplex setting for the CMC NIC. This property is used only if **cfgNetTuningNicAutoNeg** is set to 0 (disabled).

- Configuration options: 0 (half duplex), 1 (full duplex)
- Default: 1

### cfgNetTuningNicMtu

Specifies the size in bytes of the maximum transmission unit used by the CMC NIC. The minimum transmission unit size for IPv6 is 1280. If **cfgNetTuningNicMtu** is less than 1280, the CMC assigns 1280 as the value of the NIC if IPv6 is enabled.

- Configuration range: 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.

## cfgNetTuningNicAutoneg

Enables auto-negotiation of physical link speed and duplex. When enabled, auto-negotiation takes priority over values set in the `cfgNetTuningNicSpeed` and `cfgNetTuningNicFullDuplex` objects. Configuration options: 1 (enabled), 0 (disabled)

Default: 1

### Example

```
racadm getconfig -g cfgNetTuning  
  
cfgNetTuningNicSpeed=100  
cfgNetTuningNicFullDuplex=1  
cfgNetTuningNicMtu=1500  
cfgNetTuningNicAutoneg=1
```

## cfgOobSnmpp



**NOTE:** Use this object with the `config` or `getconfig` subcommands.



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the `-o` option.

### Description

Enables or disables the SNMP agent for the CMC. The CMC SNMP agent supports the standard RFC1213 mib-2, and the Dell™ enterprise-specific MIB.

### cfgOobSnmppAgentEnable

Enables or disables the SNMP agent in the CMC.

- Configuration options: 1 (true), 0 (false)
- Default: 0

## cfgOobSnmpAgentCommunity

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 that of the other hosts for any kind of communication through SNMP.

### Example

```
racadm getconfig -g cfgOobSnmp  
cfgOobSnmpTrapsEnable=1  
cfgOobSnmpAgentCommunity=public
```

## cfgTraps



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Displays information for and configures delivery of SNMP traps for a specific user.

### # cfgTrapsIndex

Read only. Indicates the unique index of an alert instance.

### cfgTrapsEnable

Enables or disables event traps on the CMC.

Configuration options: 1 (true), 0 (false)

### cfgTrapsAlertDestIpAddr

Sets the IP address that will receive the alert.

Configuration options: A string representing a valid IP address. For example, 192.168.0.20.

## cfgTrapsCommunityName

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 that of the other hosts for any kind of communication through SNMP.

**Configuration options:** A string representing the community name.

### Example

```
racadm getconfig -g cfgTraps -i 2
# cfgTrapsIndex=2
cfgTrapsEnable=1
cfgTrapsAlertDestIpAddr=
cfgTrapsCommunityName=public
```

## cfgRacTuning



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Configures CMC tuning parameters. Use the **-m** option to apply this setting to the iDRAC.

## cfgRacTuneRemoteRacadmEnable

Enables or disables the remote RACADM interface in the CMC.

**Configuration options:** 1 (true), 0 (false)

**Default:** 1



### **cfgRacTuneWebserverEnable**

Enables and disables the CMC Web server. If this property is set to 0 (false or disabled), you cannot access the CMC through client Web browsers or remote RACADM. This property has no effect on the Telnet/SSH/serial/local RACADM interfaces.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 1

### **cfgRacTuneHttpPort**

Specifies the port number to use for HTTP network communication with the CMC.

- **Configuration range:** 10–65535
- **Default:** 80

### **cfgRacTuneHttpsPort**

Specifies the port number to use for HTTPS network communication with the CMC.

- **Configuration range:** 10–65535
- **Default:** 443

### **cfgRacTuneTelnetPort**

Specifies the port number used for the CMC telnet interface.

- **Configuration range:** 10–65535
- **Default:** 23

### **cfgRacTuneSshPort**

Specifies the port number used for the CMC SSH interface.

- **Configuration range:** 10–65535
- **Default:** 22

### **cfgRacTuneIpRangeEnable**

Enables or disables the IP address Range validation feature of the CMC.

- Configuration options: 1 (true), 0 (false)
- Default: 0

### **cfgRacTuneIpRangeAddr**

A login from the incoming IP address is allowed only if both of the following are identical:

- 1 **cfgRacTuneIpRangeMask** bit-wise and with incoming IP address
  - 2 **cfgRacTuneIpRangeAddr** bit-wise and with **cfgRacTuneIpRangeAddr**
- Configuration options: IP address-formatted string. For example, 192.168.0.44.
  - Default: 192.168.1.1

### **cfgRacTuneIpRangeMask**

A login from the incoming IP address is allowed only if both of the following are identical:

- 1 **cfgRacTuneIpRangeMask** bit-wise and with incoming IP address
  - 2 **cfgRacTuneIpRangeAddr** bit-wise and with **cfgRacTuneIpRangeAddr**
- Configuration options: A bitmask value that is applied left-justified bits. For example, 255.255.255.0.
  - Default: 255.255.255.0

### **cfgRacTuneIpBlkEnable**

Enables or disables the IP address blocking feature of the CMC.

- Configuration options: 1 (true), 0 (false)
- Default: 0

### **cfgRacTuneIpBlkFailCount**

Sets the maximum number of login failures to occur in the window before the login attempts from the IP address are rejected.

- Configuration range: 2–16
- Default: 5

## **cfgRacTuneIpBlkFailWindow**

Defines the time span in seconds within which the failed attempts are counted. When the failure attempts age to this limit, the failures are dropped from the count.

- **Configuration range:** 2–65535
- **Default:** 60

## **cfgRacTuneIpBlkPenaltyTime**

Defines the time span in seconds during which session requests from an IP address with excessive failures are rejected.

- **Configuration range:** 2–65535
- **Default:** 300

## **# cfgRacTuneTimezoneOffset**

**Read only.** Specifies the difference, in seconds, from the Coordinated Universal Time (UTC)/Greenwich Mean Time (GMT). This value is negative if current time zone is west of Greenwich.

## **# cfgRacTuneDaylightOffset**

**Read only.** Specifies the number of seconds of Daylight Savings included in the current time zone. This value is 0 if the time zone is not a Daylight Saving time zone.

## **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=0
cfgRacTuneDaylightOffset=0
```

## cfgRacSecurity



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### Description

Configures settings related to the CMC SSL certificate signing request (CSR) feature.



**NOTE:** You must configure the properties in this group before you can generate a CSR from the CMC.

For more information on generating certificate signing requests using RACADM, see "sslcsrgen" on page 101.

### cfgRacSecCsrKeySize

Specifies the SSL asymmetric key size for the CSR.

- Configuration options: 512, 1024, 2048
- Default: 1024

### cfgRacSecCsrCommonName

Specifies the CSR Common Name (CN).

- Configuration options: String of up to 254 characters.
- Default: [null]

### cfgRacSecCsrOrganizationName

Specifies the CSR Organization Name (O).

- Legal value: String of up to 254 characters.

- **Default:** [null]

### **cfgRacSecCsrOrganizationUnit**

Specifies the CSR Organization Unit (OU).

- **Legal value:** String of up to 254 characters.
- **Default:** [null]

### **cfgRacSecCsrLocalityName**

Specifies the CSR Locality (L).

- **Legal value:** String of up to 254 characters.
- **Default:** [null]

### **cfgRacSecCsrStateName**

Specifies the CSR State Name (S).

**Legal value:** String of up to 254 characters.

**Default:** [null]

### **cfgRacSecCsrCountryCode**

Specifies the CSR Country Code (CC).

- **Legal value:** String of up to 254 characters.
- **Default:** [null]

### **cfgRacSecCsrEmailAddr**

Specifies the CSR e-mail address.

- **Legal value:** String of up to 254 characters.
- **Default:** [null]

### **Example**

```
racadm config -g cfgRacSecurity  
cfgRacSecCsrKeySize=1024  
cfgRacSecCommonName=  
cfgRacSecOrganizationName=
```

```
cfgRacSecOrganizationUnit=  
cfgRacSecLocalityName=  
cfgRacSecStateName=  
cfgRacSecCountryCode=  
cfgRacSecEmailAddr=
```

## cfgActiveDirectory



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Configures Microsoft® Active Directory® properties.

### cfgADEnable

Enables or disables Active Directory user authentication on the CMC. If this property is disabled, local CMC authentication is used for user logins instead.

- **Configuration options:** 1 (true), 0 (false)
- **Default:** 0

### cfgADSCLEnable

Enables you to log on to the CMC without enabling the Smart Card login.

- **Configuration options:** 1 (enable), 0 (disable)
- **Default:** 0

### cfgADSSOEnable

Disables the Smart Card login.

- **Configuration options:** 1 (enable), 0 (disable)
- **Default:** 0

### **cfgAD RacDomain**

Specifies the Active Directory domain on which the CMC resides.

- **Configuration options:** String of up to 254 characters with no spaces.
- **Default:** [null]

### **cfgAD RootDomain**

Specifies the root domain of the domain forest.

- **Configuration options:** String of up to 254 characters with no spaces.
- **Default:** [null]

### **cfgAD RacName**

Specifies the name of CMC as recorded in the Active Directory forest.

- **Configuration options:** String of up to 254 characters with no spaces.
- **Default:** [null]

### **cfgAD AuthTimeout**

Specifies the number of seconds to wait for Active Directory authentication requests to complete before timing out.

- **Configuration range:** 15–300
- **Default:** 120

### **cfgAD Type**

Indicates the schema type (extended or standard) to use with Active Directory.

- **Configuration options:** 1 (extended), 2 (standard)
- **Default:** 1 (extended)

### **cfgAD SpecifyServerEnable**

Allows you to enable/disable and specify an LDAP server or a global catalog server. Use `cfgADDomainController` or `cfgADGlobalCatalog` to specify the IP address.

- **Configuration options:** 1 (enabled), 0 (disabled)

- **Default:** 0 (disabled)

### **cfgADDomainController**

Specifies the LDAP server from which you want the CMC to obtain user names. **Must be used with `cfgADSpecifyServerEnable`.**

- **Legal value:** Valid IP address or fully qualified domain name (FQDN).

### **cfgADGlobalCatalog**

Specifies the global catalog server from which you want the CMC to obtain user names. **Must be used with `cfgADSpecifyServerEnable`.**

- **Legal value:** Valid IP address or FQDN.

#### **Example**

```
racadm getconfig -g cfgActiveDirectory  
  
cfgADEnable=1  
cfgADSCLEnable=0  
cfgADSSOEnable=0  
cfgADRacDomain=  
cfgADRootDomain=help  
cfgADRacName=  
cfgADRacAuthTimeout=300  
cfgADType=0x4  
cfgADSpecifyServerEnable=1  
cfgADDomainController=192.168.1.1  
cfgADGlobalCatalog=127.0.0.1
```

## **cfgStandardSchema**



**NOTE:** Use this object with the `config` or `getconfig` subcommands.



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the `-o` option.



## Description

Configures the Standard Schema settings for Active Directory.

### # **cfgSSADRoleGroupIndex**

**Read only.** Displays the index of the Role Group as recorded in the Active Directory.

- Configuration range: 1–5

### **cfgSSADRoleGroupName**

Specifies the name of the Role Group as recorded in the Active Directory forest.

- Configuration options: String of up to 254 characters with no spaces.
- Default: [null]

### **cfgSSADRoleGroupDomain**

Specifies the Active Directory Domain in which the Role Group resides.

- Configuration options: String of up to 254 characters with no spaces.

### **cfgSSADRoleGroupPrivilege**

Specifies the bit mask numbers (see Table 3-1) to set role-based authority privilege for a Role Group.

- Configuration range: 0x00000000–0x000001ff
- Default: [null]


## Example


```
racadm getconfig -g cfgStandardSchema  
  
# cfgSSADRoleGroupIndex=1  
cfgSSADRoleGroupName=bldsys-1  
cfgSSADRoleGroupDomain=  
cfgSSADRoleGroupPrivilege=3081
```

## cfgChassisPower



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

 **NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

 **NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

## Description

Displays information for and configures power for the chassis.

### # **cfgChassisInPower**

**Read only.** Indicates the cumulative input power consumption data (in watts and BTU/hr) captured from all healthy and functional PSUs in the chassis.

### # **cfgChassisPeakPower**

**Read only.** The maximum system level power consumption (in watts) since the value was last cleared by a user.

### # **cfgChassisPeakPowerTimestamp**

**Read only.** The timestamp recorded when the peak system power value occurred.

### # **cfgChassisMinPower**

**Read only.** The minimum system level power consumption value (in watts) over the time since the value was last cleared.

### # **cfgChassisMinPowerTimestamp**

**Read only.** The timestamp recorded when the minimum system power occurred.

### # **cfgChassisPowerStatus**

**Read only.** Indicates the power status of the chassis.

- Configuration options: 1 (other), 2 (unknown), 3 (OK), 4 (non-critical), 5 (critical), 6 (non-recoverable)

### # **cfgChassisRedundantState**

**Read only.** Enables or disables power redundancy for the chassis.

- **Values:** 0 (none), 1 (full)

### **cfgChassisPowerCap**

Indicates the maximum power consumption limit (in watts) for the entire chassis. The command generates an error if blade throttling is necessary to achieve the power goal based on the value for this setting.

- **Configuration range:** 2715–7928 watts
- **Default:** 7928 watts

### **cfgChassisPowerCapF**

Indicates the maximum power consumption limit (in watts) for the entire chassis. Use **cfgChassisPowerCapF** when power consumption is to be changed regardless of whether blade 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.

- **Configuration range:** 2715–7928 watts
- **Default:** 7928 watts

### **cfgChassisPowerCapBTU**

Indicates the maximum power consumption limit (in BTU/hr) for the entire chassis. The command generates an error if blade throttling is necessary to achieve the power goal based on the value for this setting.

- **Configuration range:** 9264-27051 BTU/hr
- **Default:** 27051 BTU/hr

### **cfgChassisPowerCapFBTU**

Indicates the maximum power consumption limit (in BTU/hr) for the entire chassis. Use **cfgChassisPowerCapFBTU** when power consumption is to be changed regardless of whether blade 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.

- **Configuration range:** 9264-27051 BTU/hr
- **Default:** 27051 BTU/hr

### **cfgChassisPowerCapPercent**

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 blade throttling is necessary to achieve the power goal based on the value for this setting.

- **Configuration range:** 0-100
- **Default:** 100

### **cfgChassisPowerCapFPercent**

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 to be changed regardless of whether blade throttling is required.

- **Configuration range:** 0-100
- **Default:** 100

### **cfgChassisRedundancyPolicy**

Sets the redundancy policy of the chassis.

- **Configuration options:** 0 (no redundancy), 1 (AC redundancy), 2 (power supply redundancy).
- **Default:** 0 (no redundancy)

### **cfgChassisDynamicPSUEngagementEnable**

Enables or disables dynamic engagement.

- **Configuration options:** 0 (disabled), 1 (enabled)
- **Default:** 0 (disabled)

### **# cfgChassisInMaxPowerCapacity**

**Read only.** Indicates the total chassis power budget (in watts) available for chassis operation.

### **# cfgChassisInRedundancyReserve**

**Read only.** Indicates the amount of redundant power (in watts) in reserve that can be utilized in the event of an AC grid or PSU failure. This value is 0 if the Redundancy Policy is set to 0 (no redundancy).

### **# cfgChassisInPowerServerAllocation**

**Read only.** Indicates (in watts) the cumulative power allocated to servers.

- **Default:** 7928

### **# cfgChassisInfrastructureInPowerAllocation**

**Read only.** Indicates the estimated cumulative DC output power consumption (in watts), determined from a field replaceable unit (FRU) on the hardware modules in the chassis.

### **# cfgChassisTotalInPowerAvailable**

**Read only.** Indicates the amount of power (in watts) available for use by the chassis.

### **# cfgChassisStandbyInPowerCapacity**

**Read only.** 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).

### **# cfgChassisPowerClear**

**Write only.** To reset `cfgChassisMinPower` and `cfgChassisMaxPowerCapacity`, set this object to 1.

### **# cfgChassisPowerClearTimestamp**

**Read only.** Time stamp when `cfgChassisMinPower` and `cfgChassisMaxPowerCapacity` were reset.

### **cfgChassisPowerButtonEnable**

Indicates if the chassis power button is enabled or disabled.

- **Values:** 0 (disabled), 1 (enabled)

## # cfgSystemEnergyConsumptionClear

Write only. To reset energy statistics, set this value to 1.

### 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=7928 W
cfgChassisPowerCapF=7928 W
cfgChassisPowerCapBTU=200 BTU/hr
cfgChassisPowerCapFBTU=200 BTU/hr
cfgChassisPowerCapPercent =10%
cfgChassisPowerCapFPercent =10%
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
cfgChassisPowerButtonEnable=1
cfgSystemEnergyConsumptionClear = **** (Write-Only)
```

- racadm config -g cfgChassisPower  
-o cfgChassisPowerClear 1

Clears `cfgChassisMinPower` and `cfgChassisPeakPower`.

## cfgServerInfo



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Displays information for and configures a server in the chassis.

### # cfgServerInfoIndex

Read only. Displays the index name of the server.

### # cfgServerSlotNumber

Read only. Specifies the location of the specified server (1–16) in the chassis.

### # cfgServerServiceTag

Read only. Displays the service tag of the specified server.

### cfgServerName

Specifies the name of the specified server.

- **Configuration options:** String of alphanumeric characters, periods, and dashes; maximum of 15 characters.
- **Default:** `SLOT-<slot number>`

### # cfgServerFW

Read only. Displays the server's iDRAC management firmware revision.

### # cfgServerBIOS

Read only. Displays the server's BIOS revision.

### # cfgServerBmcMacAddress

Read only. Displays the BMC MAC address of the specified server.

### **# cfgServerNic1MacAddress**

Read only. Displays the MAC address of the server NIC 1.

### **# cfgServerNic2MacAddress**

Read only. Displays the MAC address of the server NIC 2.

### **# cfgServerNic3MacAddress**

Read only. Displays the MAC address of the server NIC 3.

### **# cfgServerNic4MacAddress**

Read only. Displays the MAC address of the server NIC 4.

### **cfgServerPriority**

Sets the priority level allotted to the server in the chassis for power budgeting purposes.

- **Configuration range:** 1–9 in descending priority, where 1 indicates the highest priority
- **Default:** 1

### **cfgServerNicEnable**

Enables or disables LAN channel.

- **Configuration options:** 0 (disable), 1 (enable)

### **cfgServerIPMIOverLanEnable**

Enables or disables IPMI LAN channel.

- **Configuration options:** 0 (disable), 1 (enable)

### **# cfgServerPowerBudgetAllocation**

Read only. Displays the current power allocation for the server.

### **cfgServerDNSRegisterIMC**

Enables or disables DNS name registration for the integrated management controller — iDRAC.



- Configuration options: 0 (disable), 1 (enable)

### **cfgServerDNSIMCName**

Displays the DNS domain name for the integrated Remote Access Controller, iDRAC.

### **# cfgServerRootPassword**

**Write only.** Displays the password for iDRAC as a series of asterisks (\*). It cannot be seen or displayed after this property is written.

### **# cfgServerFirstBootDevice**

**Write only.** Sets the boot device that the server must boot from.

### **# cfgServerBootOnce**

**Write only.** Sets if the server must boot from the device once.

### **# cfgServerPowerConsumption**

**Read only.** Displays the current power consumption for a server.

### **Example**

```
racadm getconfig -g cfgServerInfo -i 8
# cfgServerInfoIndex=8
# cfgServerSlotNumber=8
# cfgServerServiceTag=
cfgServerName=SLOT-08
# cfgServerFW=2.10 (Build 22)
# cfgServerBIOS=
# cfgServerBmcMacAddress=00:21:9B:FE:5F:58
# cfgServerNic1MacAddress=00:0D:56:B8:69:63
# cfgServerNic2MacAddress=00:0D:56:B8:69:65
# cfgServerNic3MacAddress=00:0D:56:B8:69:CB
```

```
# cfgServerNic4MacAddress=00:0D:56:B8:69:CD
cfgServerPriority=1
cfgServerNicEnable=1
cfgServerIPMIOverLANEnable=1
# cfgServerPowerBudgetAllocation=0
cfgServerDNSRegisterIMC=0
cfgServerDNSIMCName=idRAC-
# cfgServerRootPassword=***** (Write-Only)
# cfgServerFirstBootDevice=***** (Write-Only)
# cfgServerBootOnce=***** (Write-Only)
# cfgServerPowerConsumption=0

racadm getconfig -g cfgServerInfo -i 1
# cfgServerInfoIndex=1
# cfgServerSlotNumber=1
# cfgServerServiceTag=1S0M0G1
cfgServerName=SLOT-01
# cfgServerFW=1.40 (Build 12)
# cfgServerBIOS=4.0.2
# cfgServerBmcMacAddress=00:18:8B:FF:41:43
# cfgServerNic1MacAddress=00:1A:A0:FF:D9:F4
# cfgServerNic2MacAddress=00:1A:A0:FF:D9:F6
cfgServerPriority=1
cfgServerNicEnable=1
cfgServerIPMIOverLANEnable=1
# cfgServerPowerBudgetAllocation=0
```

```
cfgServerDNSRegisterIMC=0
cfgServerDNSIMCName=iDRAC-1S0M0G1
# cfgServerRootPassword=***** (Write-Only)
# cfgServerFirstBootDevice=***** (Write-Only)
# cfgServerBootOnce=***** (Write-Only)
# cfgServerPowerConsumption=0
```

## cfgKVMInfo



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



**NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.



**NOTE:** You can configure any setting that is not preceded by the hash sign (#) in the output. To modify a configurable object, use the **-o** option.

### Description

Displays information for and configures the iKVM.

### cfgKVMAccessToCMCEnable

Enables or disables the Dell CMC Console access on the iKVM.

- Configuration options: 1 (enable), 0 (disable)

### cfgKVMFrontPanelEnable


Enables or disables front panel access on the iKVM.


- Configuration options: 1 (enable), 0 (disable)

### Example

```
racadm getconfig -g cfgKVMInfo
cfgKVMAccessToCMCEnable=1
cfgKVMFrontPanelEnable=1
```

## cfgAlerting

 **NOTE:** Use this object with the `config` or `getconfig` subcommands.

 **NOTE:** To use this object property, you must have **Chassis Configuration Administrator** privilege.

### Description

Enables or disables SNMP event trap alerting and sets the event filter.

### cfgAlertingEnable

Enables or disables event traps on the CMC.

- Configuration options: 1 (true), 0 (false)

### cfgAlertingFilterMask

Configuration options: Hex values 0x0–0x001fffff. For information on hex values for events, see the *Dell Chassis Management Controller User Guide*.

- Default: 0x17ff8db

### cfgAlertingSourceEmailName

E-mail address used to send e-mail notifications when an event occurs.

### Examples

- ```
racadm getconfig -g cfgAlerting -o  
cfgAlertingEnable  
0x007ffffff
```
- ```
racadm config -g cfgAlerting -o cfgAlertingEnable  
1
```

Object value modified successfully.

# Using the LCD Panel Interface

You can use the LCD panel to perform configuration and diagnostics, and to obtain status information about the chassis and its contents.

## LCD Navigation











Use the buttons to the right of the LCD screen to operate the LCD panel. The up, down, left, and right arrow buttons change the selected menu items or icons on the screen. The selected item is shown with a light blue background or border.

The center button activates the selected item.



When messages displayed on the LCD screen are longer than will fit on the screen, use the left and right arrow buttons to scroll the text left and right.

The icons described in Table 4-1 are used in navigating between LCD screens:

**Table 4-1. LCD Panel Navigational Icons**

Icon Normal	Icon Highlighted	Icon Name and Description
		<b>Back.</b> Highlight and press the center button to return to the previous screen.
		<b>Accept/Yes.</b> Highlight and press the center button to accept a change and return to the previous screen.
		<b>Skip/Next.</b> Highlight and press the center button to skip any changes and go to the next screen.
		<b>No.</b> Highlight and press the center button to answer "No" to a question and go to the next screen.
		<b>Rotate.</b> Highlight and press the center button to switch between the front and rear graphical views of the chassis.
<b>or</b>		<b>NOTE:</b> The amber background indicates that the opposite view has errors.
		

**Table 4-1. LCD Panel Navigational Icons**

Icon Normal	Icon Highlighted	Icon Name and Description
		Component Identify. Blinks the blue LED on a component. <b>NOTE:</b> There will be a blinking blue rectangle around this icon when Component Identify is enabled.

## Main Menu

From the **Main** menu you can navigate to one of the following screens:

- **LCD Setup Menu** — select the language to use and the LCD screen that displays when no one is using the LCD.
  - **Server** — displays status information for servers.
  - **Enclosure** — displays status information for the chassis.
- 1 Use the up and down arrow buttons to highlight an item.
  - 2 Press the center button to activate your selection.

## LCD Setup Menu

The **LCD Setup** menu displays a menu of items that can be configured:

- **Language Setup** — choose the language you want to use for LCD screen text and messages.
  - **Default Screen** — choose the screen that displays when there is no activity on the LCD panel.
- 1 Use the up and down arrow buttons to highlight an item in the menu or highlight the **Back** icon if you want to return to the **Main** menu.
  - 2 Press the center button to activate your selection.

## Language Setup Screen

The **Language Setup** screen allows you to select the language used for LCD panel messages. The currently active language is highlighted with a light blue background.

- 1 Use the up, down, left, and right arrow buttons to highlight the desired language.
- 2 Press the center button. The Accept icon appears and is highlighted.

- 3 Press the center button to confirm the change. The **LCD Setup** menu is displayed.

## Default Screen

The **Default Screen** allows you to change the screen that the LCD panel displays when there is no activity at the panel. The factory default screen is the **Main Menu**. You can choose from the following screens to display:

- **Main Menu**
- **Server Status** (front graphical view of the chassis)
- **Module Status** (rear graphical view of the chassis)
- **Custom** (Dell logo with chassis name)

The currently active default screen is highlighted in light blue.

- 1 Use the up and down arrow buttons to highlight the screen you want to set to the default.
- 2 Press the center button. The **Accept** icon is highlighted.
- 3 Press the center button again to confirm the change. The **Default Screen** is displayed.

## Graphical Server Status Screen

The **Graphical Server Status** screen displays icons for each server installed in the chassis and indicates the general health status for each server. The server health is indicated by the color of the server icon:

- Gray — server is off with no errors
- Green — server is on with no errors
- Amber — server has one or more errors
- Black — server is not present

A blinking light blue rectangle around a server icon indicates that the server is highlighted.

To view the **Graphical Module Status** screen:

- 1 Highlight the rotate icon.
- 2 Press the center button.

To view the status screen for a server:

- 1 Use the arrow buttons to highlight the desired server.
- 2 Press the center button. The **Server Status** screen displays.

To return to the Main Menu:

- 1 Use the arrow buttons to highlight the **Back** icon.
- 2 Press the center button.

## Graphical Module Status Screen

The **Graphical Module Status** screen displays all modules installed in the rear of the chassis and provides summary health information for each module. Module health is indicated by the color of each module icon as follows:

- Gray — module is off or on standby with no errors
- Green — module is on with no errors
- Amber — module has one or more errors
- Black — module is not present

A blinking light blue rectangle around a module icon indicates that the module is highlighted.

To view the **Graphical Server Status** screen:

- 1 Highlight the rotate icon.
- 2 Press the center button.

To view the status screen for a module:

- 1 Use the up, down, left, and right arrow buttons to highlight the desired module.
- 2 Press the center button. The **Module Status** screen displays.

To return to the **Main Menu**:

- 1 Use the arrow buttons to highlight the **Back** icon.
- 2 Press the center button. The **Main Menu** displays.

## Enclosure Menu Screen

From this screen you can navigate to the following screens:

- **Module Status** screen
- **Enclosure Status** screen



- **IP Summary** screen
  - **Main Menu**
- 1 Use the navigation buttons to highlight the desired item. (Highlight the **Back** icon to return to the **Main Menu**.)
  - 2 Press the center button. The selected screen displays.

### **Module Status Screen**

The **Module Status** screen displays information and error messages about a module. See "LCD Module and Server Status Information" on page 177 and "LCD Error Messages" on page 166 for messages that can appear on this screen.

Use the up and down arrow keys to move through messages. Use the left and right arrow keys to scroll messages that do not fit on the screen.

Highlight the **Back** icon and press the center button to return to the **Graphical Module Status** screen.

### **Enclosure Status Screen**

The **Enclosure Status** screen displays information and error messages about the enclosure. See "LCD Error Messages" on page 166 for messages that can appear on this screen.

Use the up and down arrow keys to move through messages. Use the left and right arrow keys to scroll messages that do not fit on the screen.

Highlight the **Back** icon and press the center button to return to the **Enclosure Status** screen.

### **IP Summary Screen**

The **IP Summary** screen shows IP information for the CMC and the iDRAC of each installed server.

Use the up and down arrow buttons to scroll through the list. Use the left and right arrow buttons to scroll selected messages that are longer than the screen.

Use the up and down arrow buttons to select the **Back** icon and press the center button to return to the **Enclosure** menu.

## Diagnostics

The LCD panel helps you to diagnose problems with any server or module in the chassis. If there is a problem or fault with the chassis or any server or other module in the chassis, the LCD panel status indicator blinks amber. On the **Main Menu** a blinking icon with an amber background displays next to the menu item—Server or Enclosure—that leads to the faulty server or module.

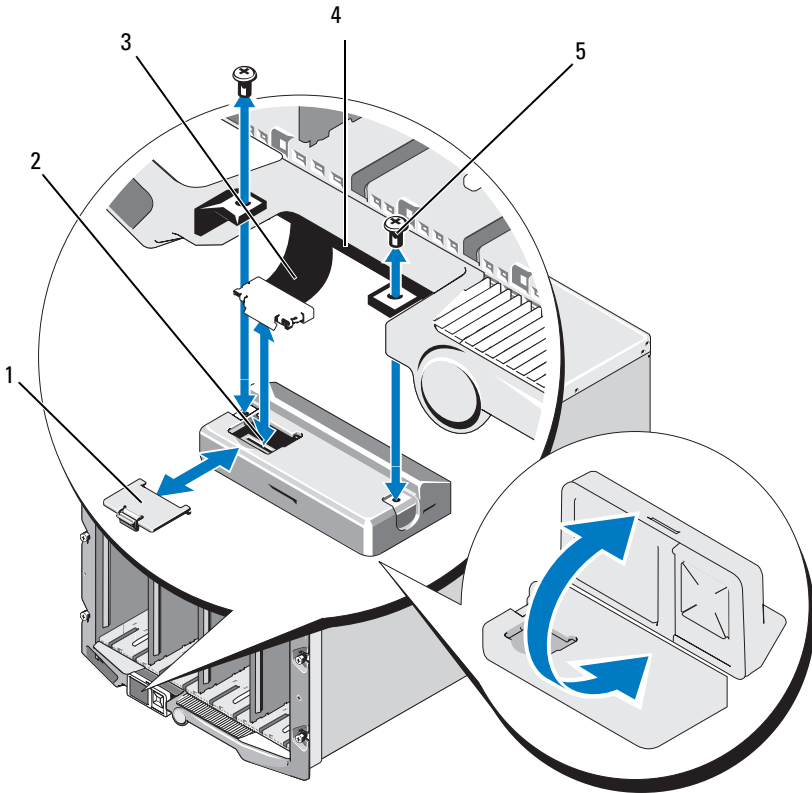
By following the blinking amber icons down through the LCD menu system, you can display the status screen and error messages for the item that has the problem.

Error messages on the LCD panel can be removed by removing the module or server that is the cause of the problem or by clearing the hardware log for the module or server. For server errors, use the iDRAC Web interface or command line interface to clear the server's System Event Log (SEL). For chassis errors, use the CMC Web interface or command line interface to clear the hardware log.

## LCD Hardware Troubleshooting

If you are experiencing issues with the LCD in relation to your use of the CMC, use the following hardware troubleshooting items to determine if there is an LCD hardware or connection issue.

**Figure 4-1. Removing and Installing the LCD Module**



- |   |              |   |            |
|---|--------------|---|------------|
| 1 | cable cover  | 2 | LCD module |
| 3 | ribbon cable | 4 | hinges (2) |
| 5 | screws (2)   |   |            |

<b>Symptom</b>	<b>Issue</b>	<b>Recovery Action</b>
Alert screen message CMC Not Responding and LED is blinking amber	Loss of communication from CMC to the LCD front panel	Check that the CMC is booting; then, reset the CMC using GUI or RACADM commands.
Alert screen message CMC Not Responding and LED is solid amber or is off	LCD front panel stuck in boot block during a CMC failover	Disconnect and reconnect the front panel circuit board to the I/O panel cable from front panel. Reset the CMC using GUI or RACADM commands.
LED blinks amber or is blank	The LCD to front panel circuit board cable is not connected properly or is faulty; or the front panel is faulty	Review the hardware log using the GUI or RACADM commands. Look for a message that states: Control Panel TFT Cable: Cable sensor for Control Panel, configuration error was asserted Replace the front panel.
Screen text is scrambled	Defective LCD screen	Replace the front panel.
LCD screen message No CMC Found	No CMC is present in the chassis	Insert a CMC into the chassis or replace existing CMC if present and nonfunctional.

Symptom	Issue	Recovery Action
Blank LCD and LED off	The front panel circuit board cable or the I/O panel cable are not connected properly; or one or both are faulty.	<p>Review the hardware log using the GUI or RACADM commands. Look for messages that state:</p> <p>Control Panel FPC Cable: Cable sensor for Control Panel, configuration error was asserted</p> <p>Control Panel I/O Cable: Cable sensor for Control Panel, configuration error was asserted</p> <p>Check that the cables are connected properly.</p>

## Front Panel LCD Messages

This section contains two subsections that list error and status information that is displayed on the front panel LCD.

*Error messages* on the LCD have a format that is similar to the System Event Log (SEL) viewed from the CLI or Web interface. The format is as follows:

```
<Severity> <Sensor Name>: <Sensor Type> sensor for
<Entity>, <Description of event>
```

The tables in the error section list the error and warning messages that are displayed on the various LCD screens and the possible cause of the message. Text enclosed in angled brackets (< >) indicates that the text may vary.

*Status information* on the LCD includes descriptive information about the modules in the chassis. The tables in this section describe the information that is displayed for each component.

# LCD Error Messages

**Table 4-2. CMC Status Screens**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	CMC <number> Battery: Battery sensor for CMC, failed was asserted	CMC CMOS battery is missing or no voltage.
Critical	CMC <number> CPU Temp: Temperature sensor for CMC, failure event	CMC CPU temperature exceeded the critical threshold.
Critical	CMC <number> Ambient Temp: Temperature sensor for CMC, failure event	CMC Ambient temperature exceeded the critical threshold.
Warning	Chassis FW Mismatch: Version Change sensor for Chassis, firmware or software incompatibility (System BIOS in slot XX with CMC) was asserted.	Possible loss of functionality or features due to incompatible software versions.
Warning	Chassis FW Mismatch: Version Change sensor for Chassis, firmware or software incompatibility (iDRAC in slot XX with CMC) was asserted.	Possible loss of functionality or features due to incompatible software versions.

**Table 4-3. Enclosure/Chassis Status Screen**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	Chassis Fan <number> Presence: Fan sensor for Chassis Fan, device removed was asserted	This fan is required for proper cooling of the enclosure/chassis.
Warning	Power Supply Redundancy: PS Redundancy sensor for Power Supply, redundancy degraded was asserted	One or more PSU have failed or removed and the system can no longer support full PSU redundancy.

**Table 4-3. Enclosure/Chassis Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	Power Supply Redundancy: PS Redundancy sensor for Power Supply, redundancy lost was asserted	One or more PSU have failed or removed and the system is no longer redundant.
Critical	Power Supply Redundancy: PS Redundancy sensor for Power Supply, non-redundant: insufficient resources	One or more PSU have failed or removed and the system lacks sufficient power to maintain normal operations. This could cause servers to power down.
Critical	Control Panel Temp: Temperature sensor for Control Panel, failure event	Chassis/Enclosure temperature exceeded the critical threshold.
Critical	CMC <number> Standalone: Micro Controller sensor for CMC, non-redundant was asserted	CMC no longer redundant. <b>NOTE:</b> This will only show if the standby CMC was removed or has failed.
Critical	Chassis Eventlog CEL: Event Log sensor for Chassis Eventlog, all event logging disabled was asserted	The CMC cannot log events.
Critical	Chassis Eventlog CEL: Event Log sensor for Chassis Eventlog, log full was asserted	Chassis device detects that only one entry can be added to the CEL before it is full.
Warning	Chassis Eventlog CEL: Event Log sensor for Chassis Eventlog, log almost full was asserted	Chassis event log is 75% full.

**Table 4-4. Fan Status Screens**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	Chassis Fan <number> Status: Fan sensor for Chassis Fan, failure event	The speed of the specified fan is not sufficient to provide enough cooling to the system.

**Table 4-5. IOM Status Screens**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Warning	I/O Module <number> Status: Module sensor for I/O Module, transition to non-critical from OK was asserted	The IO module was good, but now having fabric mismatch or link tuning mismatch.
Critical	I/O Module <number> Status: Module sensor for I/O Module, transition to critical from less severe was asserted	The I/O module has a fault. The same error can also happen if the I/O module is thermal-tripped.

**Table 4-6. iKVM Status Screen**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Warning	Local KVM Health: Module sensor for Local KVM, transition to non-critical from OK was asserted	Minor failure, such as corrupted firmware.
Critical	Local KVM Health: Module sensor for Local KVM, transition to critical from less severe was asserted	USB host enumeration failure or OSCAR failure.
Non-Recoverable	Local KVM Health: Module sensor for Local KVM, transition to non-recoverable was asserted	Serial RIP failure or USB host chip failure.

**Table 4-7. PSU Status Screens**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	Power Supply PSU <number>: Power Supply sensor for Power Supply, failure was asserted	The PSU has failed.
Critical	Power Supply PSU <number>: Power Supply sensor for Power Supply, input lost was asserted	Loss of AC power or AC cord unplugged.



**Table 4-8. Server Status Screen**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Warning	System Board Ambient Temp: Temperature sensor for System Board, warning event	Server Ambient temperature crossed a warning threshold.
Critical	System Board Ambient Temp: Temperature sensor for System Board, failure event	Server Ambient temperature crossed a failing threshold.
Critical	System Board CMOS Battery: Battery sensor for System Board, failed was asserted	CMOS battery is not present or has no voltage.
Critical	System Board ROMB Battery: Battery sensor for System Board, failed was asserted	Storage battery is not present or has no voltage.
Warning	System Board System Level: Current sensor for System Board, warning event	Current crossed a warning threshold.
Critical	System Board System Level: Current sensor for System Board, failure event	Current crossed a failing threshold.
Critical	System Board <current sensor name>: Current sensor for System Board, state asserted was asserted	Current out of range
Critical	CPU <number> <voltage sensor name>: Voltage sensor for CPU <number>, state asserted was asserted	Voltage out of range.
Critical	System Board <voltage sensor name>: Voltage sensor for System Board, state asserted was asserted	Voltage out of range.
Critical	CPU <number> <voltage sensor name>: Voltage sensor for CPU <number>, state asserted was asserted	Voltage out of range.

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	CPU<number> Status: Processor sensor for CPU<number>, IERR was asserted	CPU failure.
Critical	CPU<number> Status: Processor sensor for CPU<number>, thermal tripped was asserted	CPU overheated.
Critical	CPU<number> Status: Processor sensor for CPU<number>, configuration error was asserted	Incorrect processor type or in wrong location.
Critical	CPU<number> Status: Processor sensor for CPU<number>, presence was de-asserted	Required CPU is missing or not present.
Critical	System Board Video Riser: Module sensor for System Board, device removed was asserted	Required module was removed.
Critical	Mgt Riser Presence: Presence sensor for Mgt Riser, absent was asserted	Management Riser was removed.
Critical	Backplane Presence: Presence sensor for Backplane, absent was asserted	Backplane was removed.
Critical	System Board HeatSink Pres: Presence sensor for System Board, absent was asserted	Required system board heat sink was removed.
Critical	Mezz B <slot number> Status: Add-in Card sensor for Mezz B <slot number>, install error was asserted	Incorrect Mezzanine card installed for I/O fabric.
Critical	Mezz B <slot number> PG: Voltage sensor for Mezz B <slot number>, state asserted was asserted	No power to Mezzanine card.

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	Mezz C <slot number> Status: Add-in Card sensor for Mezz C <slot number>, install error was asserted	Incorrect Mezzanine card installed for I/O fabric.
Critical	Mezz C <slot number> PG: Voltage sensor for Mezz C <slot number>, state asserted was asserted	No power to Mezzanine card.
Critical	Backplane Drive <number>: Drive Slot sensor for Backplane, drive removed	Storage Drive was removed.
Critical	Backplane Drive <number>: Drive Slot sensor for Backplane, drive fault was asserted	Storage Drive failed.
Critical	Storage PG: Voltage sensor for Storage, state asserted was asserted	No voltage to storage device.
Critical	System Board PFault Fail Safe: Voltage sensor for System Board, state asserted was asserted	This event is generated when the system board voltages are not at normal levels.
Critical	System Board OS Watchdog: Watchdog sensor for System Board, timer expired was asserted	The iDRAC watchdog timer expires and no action is set.
Critical	System Board OS Watchdog: Watchdog sensor for System Board, reboot was asserted	The iDRAC watchdog detected that the system has crashed (timer expired because no response was received from Host) and the action is set to reboot.
Critical	System Board OS Watchdog: Watchdog sensor for System Board, power off was asserted	The iDRAC watchdog detected that the system has crashed (timer expired because no response was received from Host) and the action is set to power off.

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	System Board OS Watchdog: Watchdog sensor for System Board, power cycle was asserted	The iDRAC watchdog detected that the system has crashed (timer expired because no response was received from Host) and the action is set to power cycle.
Critical	System Board SEL: Event Log sensor for System Board, log full was asserted	The SEL device detects that only one entry can be added to the SEL before it is full.
Warning	ECC Corr Err: Memory sensor, correctable ECC (<DIMM Location>) was asserted	Correctable ECC errors reach a critical rate.
Critical	ECC Uncorr Err: Memory sensor, uncorrectable ECC (<DIMM Location>) was asserted	An uncorrectable ECC error was detected.
Critical	I/O Channel Chk: Critical Event sensor, I/O channel check NMI was asserted	A critical interrupt is generated in the I/O Channel.
Critical	PCI Parity Err: Critical Event sensor, PCI PERR was asserted	Parity error was detected on the PCI bus.
Critical	PCI System Err: Critical Event sensor, PCI SERR (<Slot number or PCI Device ID>) was asserted	PCI error detected by device.
Critical	SBE Log Disabled: Event Log sensor, correctable memory error logging disabled was asserted	Single bit error logging is disable when too many SBE get logged.
Critical	Logging Disabled: Event Log sensor, all event logging disabled was asserted	All error logging is disabled.
Non-Recoverable	CPU Protocol Err: Processor sensor, transition to non-recoverable was asserted	The processor protocol entered a non-recoverable state.
Non-Recoverable	CPU Bus PERR: Processor sensor, transition to non-recoverable was asserted	The processor bus PERR entered a non-recoverable state.

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Non-Recoverable	CPU Init Err: Processor sensor, transition to non-recoverable was asserted	The processor initialization entered a non-recoverable state.
Non-Recoverable	CPU Machine Chk: Processor sensor, transition to non-recoverable was asserted	The processor machine check entered a non-recoverable state.
Critical	Memory Spared: Memory sensor, redundancy lost (<DIMM Location>) was asserted	Memory spare is no longer redundant.
Critical	Memory Mirrored: Memory sensor, redundancy lost (<DIMM Location>) was asserted	Mirrored Memory is no longer redundant.
Critical	Memory RAID: Memory sensor, redundancy lost (<DIMM Location>) was asserted	RAID Memory is no longer redundant.
Warning	Memory Added: Memory sensor, presence (<DIMM Location>) was deasserted	Added memory module was removed.
Warning	Memory Removed: Memory sensor, presence (<DIMM Location>) was deasserted	Memory module was removed.
Critical	Memory Cfg Err: Memory sensor, configuration error (<DIMM Location>) was asserted	Memory configuration is incorrect for the system.
Warning	Mem Redun Gain: Memory sensor, redundancy degraded (<DIMM Location>) was asserted	Memory redundancy is down graded but not lost.
Critical	PCIE Fatal Err: Critical Event sensor, bus fatal error was asserted	Fatal error is detected on the PCIE bus.
Critical	Chipset Err: Critical Event sensor, PCI PERR was asserted	Chip error is detected.

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Warning	Mem ECC Warning: Memory sensor, transition to non-critical from OK (<DIMM Location>) was asserted	Correctable ECC errors have increased from a normal rate.
Critical	Mem ECC Warning: Memory sensor, transition to critical from less severe (<DIMM Location>) was asserted	Correctable ECC errors have reached a rate.
Critical	System Board POST Err: POST sensor for System Board, POST fatal error <additional error information> was asserted	See Hardware Service Manual for BIOS POST addition error information.
Critical	POST Err: POST sensor, No memory installed	No memory detected on board
Critical	POST Err: POST sensor, Memory configuration error	Memory detected but is not configurable
Critical	POST Err: POST sensor, Unusable memory error	Memory configured but not usable
Critical	POST Err: POST sensor, Shadow BIOS failed	System BIOS shadow failure
Critical	POST Err: POST sensor, CMOS failed	CMOS failure
Critical	POST Err: POST sensor, DMA controller failed	DMA controller failure
Critical	POST Err: POST sensor, Interrupt controller failed	Interrupt controller failure
Critical	POST Err: POST sensor, Timer refresh failed	Timer refresh failure
Critical	POST Err: POST sensor, Programmable interval timer error	Programmable interval timer error
Critical	POST Err: POST sensor, Parity error	Parity error

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	POST Err: POST sensor, SIO failed	SIO failure
Critical	POST Err: POST sensor, Keyboard controller failed	Keyboard controller failure
Critical	POST Err: POST sensor, System management interrupt initialization failed	System Management Interrupt initialization failure
Critical	POST Err: POST sensor, BIOS shutdown test failed	BIOS shutdown test failure
Critical	POST Err: POST sensor, BIOS POST memory test failed	BIOS POST memory test failure
Critical	POST Err: POST sensor, Dell Remote Access Controller configuration failed	Dell Remote Access Controller configuration failure
Critical	POST Err: POST sensor, CPU configuration failed	CPU configuration failure
Critical	POST Err: POST sensor, Incorrect memory configuration	Incorrect memory configuration
Critical	POST Err: POST sensor, POST failure	General failure after video failure
Critical	Hdwar version err: Version Change sensor, hardware incompatibility was asserted	Incompatible hardware was detected
Critical	Hdwar version err: Version Change sensor, hardware incompatibility (BMC/iDRAC firmware) was asserted	Hardware is incompatible with the firmware
Critical	Hdwar version err: Version Change sensor, hardware incompatibility (BMC/iDRAC firmware and CPU mismatch) was asserted	CPU and firmware not compatible

**Table 4-8. Server Status Screen (continued)**

<b>Severity</b>	<b>Message</b>	<b>Cause</b>
Critical	Mem Overtemp: Memory sensor, correctable ECC <DIMM Location> was asserted	Memory module overheating
Critical	Mem Fatal SB CRC: Memory sensor, uncorrectable ECC was asserted	South bridge memory failed
Critical	Mem Fatal NB CRC: Memory sensor, uncorrectable ECC was asserted	North bridge memory failed
Critical	WatchDog Timer: Watchdog sensor, reboot was asserted	Watch dog timer cause system to reboot
Critical	WatchDog Timer: Watchdog sensor, timer expired was asserted	Watch dog timer expired but no action taken
Warning	Link Tuning: Version Change sensor, successful software or F/W change was deasserted	Failed to update link tuning setting for proper NIC operation
Warning	Link Tuning: Version Change sensor, successful hardware change <device slot number> was deasserted	Failed to update link tuning setting for proper NIC operation
Critical	LinkT/ FlexAddr: Link Tuning sensor, failed to program virtual MAC address (Bus # Device # Function #) was asserted	FlexAddress could not be programmed for this device
Critical	LinkT/ FlexAddr: Link Tuning sensor, device option ROM failed to support link tuning or flex address (Mezz <location>) was asserted	Option ROM does not support FlexAddress or link tuning.
Critical	LinkT/ FlexAddr: Link Tuning sensor, failed to get link tuning or flex address data from BMC/iDRAC was asserted	Failed to obtain linking tuning or FlexAddress information from BMC/iDRAC



**Table 4-8. Server Status Screen (continued)**

Severity	Message	Cause
Critical	LinkT/ FlexAddr: Link Tuning sensor, device option ROM failed to support link tuning or flex address (Mezz XX) was asserted	PCI device Option ROM for a NIC does not support link tuning or the FlexAddress feature.
Critical	LinkT/ FlexAddr: Link Tuning sensor, failed to program virtual MAC address (<location>) was asserted	BIOS failed to program virtual MAC address on the given NIC device.
Critical	I/O Fatal Err: Fatal IO Group sensor, fatal IO error (<location>)	Generated in association with a CPU IERR and indicates which device caused the CPU IERR.
Warning	PCIE NonFatal Er: Non Fatal IO Group sensor, PCIe error (<location>)	Generated in association with a CPU IERR.

## LCD Module and Server Status Information

The tables in this section describe status items that are displayed on the front panel LCD for each type of component in the chassis.

**Table 4-9. CMC Status**

Item	Description
Example: CMC1, CMC2	Name/Location
No Errors	If no error occurs then “No Errors” is displayed, else lists error messages.
Firmware Version	Only displays on an active CMC. Displays <b>Standby</b> for the standby CMC.
IP4 <enabled, disabled>	Displays current IPv4 enabled state only on an active CMC.
IP4 Address: <address, acquiring>	Only displays if IPv4 is enabled only on an active CMC.

**Table 4-9. CMC Status (continued)**

Item	Description
IP6 <enabled, disabled>	Displays current IPv6 enabled state only on an active CMC.
IP6 Local Address: <address>	Only displays if IPv6 is enabled only on an active CMC.
IP6 Global Address: <address>	Only displays if IPv6 is enabled only on an active CMC.

**Table 4-10. Chassis/Enclosure Status**

Item	Description
User Define Name	Example: "Dell Rack System". This is settable via CMC CLI or Web GUI
Error Messages	If no errors occur then <b>No Errors</b> is displayed; otherwise error messages are listed, critical errors first, then warnings.
Model Number	Example "PowerEdgeM1000"
Power Consumption	Current power consumption in watts
Peak Power	Peak power consumed in watts
Minimum Power	Minimum power consumed in watts
Ambient Temperature	Current ambient temperature in degrees Celsius
Service Tag	The factory-assigned service tag
CMC redundancy mode	Non-Redundant or Redundant
PSU redundancy mode	Non-Redundant, AC Redundant, or DC Redundant

**Table 4-11. Fan Status**

Item	Description
Name/Location	Example: Fan1, Fan2, etc.

**Table 4-11. Fan Status (continued)**

<b>Item</b>	<b>Description</b>
Error Messages	If no error then "No Errors" is shown; otherwise error messages are listed, critical errors first, then warnings.
RPM	Current fan speed in RPM

**Table 4-12. PSU Status**

<b>Item</b>	<b>Description</b>
Name/Location	Example: PSU1, PSU2, etc.
Error Messages	If no error then "No Errors" is shown; otherwise error messages are listed, critical errors first, then warnings.
Status	Offline, Online, or Standby
Maximum Wattage	Maximum Wattage that PSU can supply to the system

**Table 4-13. IOM Status**

<b>Item</b>	<b>Description</b>
Name/Location	Example: IOM A1, IOM B1. etc.
Error Messages	If no error then "No Errors" is shown; otherwise error messages are listed, critical errors first, then warnings.
Status	Off or On
Model	Model of the IOM
Fabric Type	Networking type
IP address	Only shows if IOM is On. Will be all zero for a pass through type IOM.
Service Tag	The factory-assigned service tag.

**Table 4-14. iKVM Status**

<b>Item</b>	<b>Description</b>
Name	iKVM

**Table 4-14. iKVM Status (continued)**

Item	Description
Error Messages	If no error then "No Errors" is shown; otherwise error messages are listed, critical errors first, then warnings.
Status	Off or On
Model/Manufacture	A description of the iKVM model.
Service Tag	The factory-assigned service tag.
Part Number	The manufacturer part number.
Firmware Version	The iKVM firmware version.

**Table 4-15. Server Status**

Item	Description
Example: Server 1, Server 2, etc.	Name/Location
No Errors	If no errors occur then <b>No Errors</b> is displayed, else lists error messages (see "LCD Error Messages"). Lists critical errors first, then warnings.
Slot Name	Chassis slot name. For example, SLOT-01. <b>NOTE:</b> You can set this through the CMC CLI or Web GUI.
Name	User settable name of the server. You can set this through Dell OpenManage. Only displays if iDRAC has finished booting, and the server supports this feature, else displays iDRAC booting messages.
Model Number	Displays if iDRAC finished booting.
Service Tag	Displays if iDRAC finished booting.
BIOS Version	Server BIOS firmware version.
Last POST Code	Displays the last BIOS POST code.
iDRAC Firmware Version	Displays if iDRAC finished booting. <b>NOTE:</b> iDRAC version 1.01 is displayed as 1.1. There is no iDRAC version 1.10.
IP4 <enabled, disabled>	Displays the current IPv4 enabled state.

**Table 4-15. Server Status (continued)**

<b>Item</b>	<b>Description</b>
IP4 Address: <address, acquiring>	Only displays if IPv4 is enabled.
IP6 <enabled, disabled>	Only displays if iDRAC supports IPv6. Displays current IPv6-enabled state.
IP6 Local Address: <address>	Only displays if iDRAC supports IPv6. Only displays if IPv6 is enabled.
IP6 Global Address: <address>	Only displays if iDRAC supports IPv6. Only displays if IPv6 is enabled.
FlexAddress enabled on Fabrics	Only displays if the feature is installed. Lists the fabrics enabled for this server (that is, A, B, C).

The information in Table 4-15 is dynamically updated. If the server does not support this feature, then the following information does not appear, else Server Administrator options are as follows:

- Option “None” = No strings must be displayed on the LCD.
- Option “Default” = No Effect.
- Option “Custom” = Allows you to enter a string name for the server.

The information is displayed only if iDRAC has finished booting.



# Glossary

## **Active Directory**

Active Directory is a centralized and standardized system that automates network management of user data, security, and distributed resources, and enables interoperation with other directories. Active Directory is designed especially for distributed networking environments.

## **ARP**

Address resolution protocol, a method for finding a host's Ethernet address from its Internet address.

## **ASCII**

American Standard Code for Information Interchange, a code representation used for displaying or printing letters, numbers, and other characters.

## **blade**

A self-contained server designed for high density racks.

## **BIOS**

Basic input/output system, the part of system software that provides the lowest-level interface to peripheral devices and which controls the first stage of the system boot process, including installation of the operating system into memory.

## **CMC**

The Dell Chassis Management Controller, providing remote management capabilities and power control functions for Dell PowerEdge™ systems.

## **bus**

A set of conductors connecting the various functional units in a computer. Busses are named by the type of data they carry, such as data bus, address bus, or PCI bus.

## **CA**

A certificate authority (CA) is a business entity that is recognized in the IT industry for meeting high standards of reliable screening, identification, and other important security criteria. Examples of CAs include Thawte and VeriSign. After the CA receives your CSR, they review and verify the information the CSR contains. If the applicant meets the CA's security standards, the CA issues a

certificate to the applicant that uniquely identifies that applicant for transactions over networks and on the Internet.

**CD**

Compact disc

**Certificate Signing Request (CSR)**

A digital request to a certificate authority for a secure server certificate.

**CLI**

Command Line interface

**DHCP**

Dynamic host configuration protocol, a means of dynamically allocating IP addresses to computers on a network.

**DHCPv6**

Dynamic host configuration protocol for IPv6; a means of dynamically allocating IPv6 addresses to computers on a network.

**DLL**

Dynamic link library, a library of functions, any of which can be called when needed by a larger program that is running in the system. The smaller functions let the larger program communicate with a specific device such as a printer or scanner.

**DNS**

Domain name system

**DUID**

DHCP Unique Identifier. DHCPv6 clients use DUIDs to identify themselves to a DHCPv6 server.

**DUID-LL**

DUID based on link-layer address. The CMC uses this type of DUID for DHCPv6. The DUID-LL value is the CMC's MAC address.

**iDRAC**

The Dell Integrated Remote Access Controller, a systems management hardware and software solution that provides remote management capabilities, crashed system recovery, and power control functions for Dell PowerEdge systems.



**delay time (OSCAR user interface)**

The number of seconds before the OSCAR Main dialog box is displayed after <Print Screen> is pressed.

**extended schema**

A solution used with Active Directory to determine user access to the CMC; uses Dell-defined Active Directory objects.

**FQDN**

Fully qualified domain name, a domain name that specifies a module's absolute position in the DNS tree hierarchy. Microsoft® Active Directory® only supports an FQDN of 64 bytes or fewer.

**FSMO**

Flexible single master operation, a Microsoft Active Directory domain controller task that guarantees atomicity of an extension operation.

**GB1**

The uplink port on the chassis.

**GMT**

Greenwich Mean Time. GMT is the standard time common to every place in the world. GMT nominally reflects the mean solar time along the prime meridian (0 longitude) that runs through the Greenwich Observatory outside of London, UK.

**GUI**

Graphical user interface, which refers to a computer display interface that uses elements such as windows, dialog boxes, and buttons as opposed to a command prompt interface, in which all user interaction is displayed and typed in text.

**hardware log**

A CMC-generated record of events relating to hardware on the chassis.

**ICMP**

Internet control message protocol, a way for operating systems to send error messages.

**ID**

Identifier, commonly used when referring to a user identifier (user ID) or object identifier (object ID).

**iKVM**

Avocent® Integrated KVM Switch Module, an optional, hot-pluggable module to the chassis providing local access to keyboard, mouse, and video to any of the 16 servers in the chassis, as well as the additional Dell CMC Console option that connects to the chassis' active CMC.

**IOMINF**

I/O module infrastructure device.

**IP**

Internet Protocol. IP is the network layer for TCP/IP. IP provides packet routing, fragmentation, and reassembly.

**IPMB**

Intelligent platform management bus, which is used in systems management technology.

**IPv6**

Internet Protocol version 6. IPv6 is the next generation network layer for TCP/IP. It features 128-bit addresses, stateless auto configuration of IPv6 addresses, as well as a host of other features.

**Kbps**

Kilobits per second, a data transfer rate.

**LAN**

Local area network

**LDAP**

Lightweight directory access protocol

**LED**

Light-emitting diode

**LOM**

Local area network on motherboard

**MAC**

Media access control, a network sublayer between a network node and the network physical layer.

**MAC address**

Media access control address, a unique address embedded in the physical components of a NIC.

**management station**

A system that remotely accesses the CMC.

**Mbps**

Megabits per second, which is a data transfer rate.

**MC**

Mezzanine card

**Microsoft Active Directory**

A centralized, standardized system that automates network management of user data, security, and distributed resources, and enables interoperability with other directories. Active Directory is designed especially for distributed networking environments.

**NIC**

Network interface card, an adapter circuit board installed in a computer to provide a physical connection to a network.

**OID**

Object identifier

**OSCAR**

On Screen Configuration and Reporting, a graphical user interface used for iKVM access.

**PCI**

Peripheral component interconnect, a standard interface and bus technology for connecting peripherals to a system and for communicating with those peripherals.

**PKA**

Public Key Authentication.

**POST**

Power-on self-test, a sequence of diagnostic tests that are run automatically by a system when it is powered on.

**RAC**

Remote access controller

**RAM**

Random-access memory. RAM is general-purpose readable and writable memory on systems.

**RAM disk**

A memory-resident program which emulates a hard drive.

**ROM**

Read-only memory, from which data may be read, but to which data cannot be written.

**RPM**

Red Hat Package Manager, a package-management system for the Red Hat Enterprise Linux operating system. RPM manages the installation of software packages. It is similar to an installation program.

**SEL**

System event log or hardware log

**SMTP**

Simple mail transfer protocol, used to transfer electronic mail between systems—usually over an Ethernet.

**SNMP**

Simple network management protocol, designed to manage nodes on an IP network. iDRACs are SNMP-managed devices (nodes).

**SNMP trap**

A notification (event) generated by the CMC that contains information about state changes on the managed system or about potential hardware problems.

**SSH**

Secure Shell, a network protocol that allows data to be exchanged over a secure channel between two computers.

**SSL**

Secure sockets layer, a protocol that provides secure communications over networks for data transfers.

**standard schema**

A solution used with Active Directory to determine user access to the CMC; uses Active Directory group objects only.

**Stateless auto configuration**

A method by which an IPv6 client uses a router advertisement message to automatically configure its own addresses and default gateway.

**STK**

The staking port on the chassis

**TCP/IP**

Transmission control protocol/Internet protocol, representing the set of standard Ethernet protocols that includes the network layer and transport layer protocols.

**TFTP**

Trivial file transfer protocol, a simple file transfer protocol used for downloading boot code to diskless devices or systems.

**UPS**

Uninterruptible power supply

**USB**

Universal serial bus, a serial bus standard to interface devices.

**UTC**

Universal Coordinated Time. *See* GMT.

**vKVM**

Virtual keyboard-video-mouse console

**VLAN**

Virtual local area network

**VNC**

Virtual network computing

**VT-100**

Video Terminal 100, which is used by the most common terminal emulation programs.

**WAN**

Wide area network

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