Dell Chassis Management Controller Firmware Version 3.0

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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Contents

1 Overview 15

Other Documents You May Need 15

2 RACADM Subcommands 17

Guidelines to Quote Strings Containing Special Characters When Using RACADM Commands 17

"?" and "? <command>" 18

arp 20

chassisaction 20

closessn 21

clrraclog 23

clrsel 23

cmcchangeover 24

config. 25

connect. 29

deploy 29

feature 32

featurecard. 33

fwupdate 35

getassettag 39

getchassisname 40

getconfig 40

getdcinfo 44

getflexaddr 46

getioinfo 48

getkvminfo 49

getled 50

getmacaddress 51

getmodinfo 56

getniccfg 58

getpbinfo 61

getpminfo 63

getraclog 64

getractime 65

getredundancymode 67

getsel 67

getsensorinfo 69

getslotname 70

getssninfo 71

getsvctag 73

getsysinfo 75

gettracelog 78

getversion 79

help and help <command> 81

ifconfig 82

krbkeytabupload 83

netstat 83

ping 84

ping6 84

racdump 85

racreset 88

racresetcfg 89

remoteimage 90

serveraction 91

setassettag 93

setchassisname 94

setflexaddr 94

setled 95

setniccfg 96

setractime 99

setslotname **101**

setsysinfo **102**

sshpkauth **103**

sslcertdownload **105**

sslcertupload **106**

sslcertview **107**

sslcsrgen **108**

sslresetcfg **109**

testemail **110**

testfeature **111**

testtrap **114**

traceroute **114**

traceroute6 . . . . . **115**

3 CMC Property Database Group and Object Definitions 117

Displayable Characters **117**

idRacInfo (read only) **117**

idRacType 118

idRacProductInfo 118

idRacDescriptionInfo 118

idRacVersionInfo 118

idRacBuildInfo. 118

idRacName 118

cfgLanNetworking **119**
cfgNicEnable 119
cfgNicIPv4Enable 119
cfgNicIpAddress 119
cfgNicNetmask 120
cfgNicGateway 120
cfgNicUseDhcp 120
cfgNicMacAddress 120
cfgNicVLanEnable 120
cfgNicVLanId 121
cfgNicVLanPriority 121
cfgDNSServersFromDHCP 121
cfgDNSServer1 122
cfgDNSServer2 122
cfgDNSRacName 122
cfgDNSDomainName 122
cfgDNSDomainNameFromDHCP 123
cfgDNSRegisterRac 123

cfgIPv6LanNetworking **124**
cfgIPv6Enable 124
cfgIPv6AutoConfig 125
cfgIPv6Address 125
cfgIPv6PrefixLength 125
cfgIPv6Gateway 125
cfgIPv6DNSServersFromDHCP6 126
cfgIPv6DNSServer1 126
cfgIPv6DNSServer2 126

cfgCurrentLanNetworking (read only) **127**
cfgNicCurrentIpAddress 127
cfgNicCurrentNetmask 127
cfgNicCurrentGateway 127
cfgNicCurrentDhcpWasUsed 127

cfgDNSCurrentServer1 127
cfgDNSCurrentServer2 128
cfgDNSCurrentDomainName 128
cfgNicCurrentIPv4Enabled 128

cfgCurrentIPv6LanNetworking (read only) 128
cfgCurrentIPv6Enabled 129
cfgCurrentIPv6AutoConfigWasUsed 129
cfgCurrentLinkLocalAddress 129
cfgCurrentIPv6Address1 129
cfgCurrentIPv6Gateway. 129
cfgCurrentIPv6DNSServersFromDHCP6 129
cfgCurrentIPv6DNSServer1. 129
cfgCurrentIPv6DNSServer2. 129

cfgRemoteHosts 130
cfgRhostsFwUpdateTftpEnable. 130
cfgRhostsFwUpdateIpAddr 130
cfgRhostsFwUpdatePath 131
cfgRhostsSmtpServerIpAddr 131
cfgRhostsNtpEnable 131
cfgRhostsNtpServer1 131
cfgRhostsNtpServer2 131
cfgRhostsNtpServer3 132
cfgRhostsNtpMaxDist 132
cfgRhostsSyslogEnable 132
cfgRhostsSyslogPort 132
cfgRhostsSyslogServer1 133
cfgRhostsSyslogServer2 133
cfgRhostsSyslogServer3 133

cfgUserAdmin 134
cfgUserAdminIndex. 134
cfgUserAdminEnable 134

cfgUserAdminUserName 135
cfgUserAdminPassword 135
cfgUserAdminPrivilege 135

cfgEmailAlert **136**
cfgEmailAlertIndex 137
cfgEmailAlertEnable 137
cfgEmailAlertAddress 137
cfgEmailAlertEmailName 137

cfgSessionManagement **138**
cfgSsnMgtWebserverTimeout 138
cfgSsnMgtTelnetIdleTimeout 138
cfgSsnMgtSshIdleTimeout 138
cfgSsnMgtRacadmTimeout 139

cfgSerial **139**
cfgSerialBaudRate 139
cfgSerialConsoleEnable 140
cfgSerialConsoleQuitKey 140
cfgSerialConsoleIdleTimeout 140
cfgSerialConsoleNoAuth 141
cfgSerialConsoleCommand 141
cfgSerialConsoleColumns 141
cfgSerialHistorySize 141
cfgSerialTelnetEnable 142
cfgSerialSshEnable 142

cfgNetTuning **142**
cfgNetTuningNicSpeed 143
cfgNetTuningNicFullDuplex 143
cfgNetTuningNicMtu 143
cfgNetTuningNicAutoneg 143

cfgOobSnmp **144**

cfgOobSnmpAgentEnable 144
cfgOobSnmpAgentCommunity 144

cfgTraps **145**
cfgTrapsIndex 145
cfgTrapsEnable 145
cfgTrapsAlertDestIpAddr 145
cfgTrapsCommunityName 145

cfgRacTuning **146**
cfgRacTuneRemoteRacadmEnable 146
cfgRacTuneWebserverEnable 146
cfgRacTuneHttpPort 147
cfgRacTuneHttpsPort 147
cfgRacTuneTelnetPort 147
cfgRacTuneSshPort 147
cfgRacTuneIpRangeEnable 148
cfgRacTuneIpRangeAddr 148
cfgRacTuneIpRangeMask 148
cfgRacTuneIpBlkEnable 148
cfgRacTuneIpBlkFailCount 149
cfgRacTuneIpBlkFailWindow 149
cfgRacTuneIpBlkPenaltyTime 149
cfgRacTuneTimezoneOffset 149
cfgRacTuneDaylightOffset 149

cfgRacSecurity **150**
cfgRacSecCsrKeySize 150
cfgRacSecCsrCommonName 151
cfgRacSecCsrOrganizationName 151
cfgRacSecCsrOrganizationUnit 151
cfgRacSecCsrLocalityName 151
cfgRacSecCsrStateName 151
cfgRacSecCsrCountryCode 151

cfgRacSecCsrEmailAddr 152

cfgLDAP **152**

cfgLDAPEnable 152
cfgLDAPServer 153
cfgLDAPPort 153
cfgLDAPBaseDN 153
cmfgLDAPUserAttribute 153
cfgLDAPGroupAttribute 153
cfgLDAPGroupAttributeIsDN 154
cfgLDAPBindDN 154
cfgLDAPBindPassword 154
cfgLDAPSearchFilter 154
cfgLDAPCertValidationEnable 155
cfgLDAPNetworkTimeout 155
cfgLDAPSearchTimeout 155
cfgLDAPSRVLookupEnable 155
cfgLDAPSRVLookupDomainName 155
cfgLDAPSRVLookupServiceName 155

cfgLDAPRoleGroup **156**

cfgLDAPRoleGroupDN 156
cfgLDAPRoleGroupPrivilege 156

cfgActiveDirectory **157**

cfgADEnable 157
cfgADSCLEnable 157
cfgADSSOEnable 157
cfgADRacDomain 157
cfgADRootDomain 158
cfgADRacName 158
cfgADAuthTimeout 158
cfgADType 158
cfgADSpecifyServerEnable 158

cfgADDomainController. 159
cfgADGlobalCatalog 159

cfgStandardSchema **159**
cfgSSADRoleGroupIndex 160
cfgSSADRoleGroupName. 160
cfgSSADRoleGroupDomain. 160
cfgSSADRoleGroupPrivilege 160

cfgChassisPower **161**
cfgChassisInPower 161
cfgChassisPeakPower 161
cfgChassisPeakPowerTimestamp 161
cfgChassisMinPower 161
cfgChassisMinPowerTimestamp 161
cfgChassisPowerStatus. 161
cfgChassisRedundantState 162
cfgChassisPowerCap 162
cfgChassisPowerCapF 162
cfgChassisPowerCapBTU 162
cfgChassisPowerCapFBTU 163
cfgChassisPowerCapPercent 163
cfgChassisPowerCapFPercent 163
cfgChassisRedundancyPolicy 163
cfgChassisDynamicPSUEngagementEnable . . . 164
cfgChassisAllow110VACOperation 164
cfgChassisMaxPowerConservationMode . . . 164
cfgChassisInMaxPowerCapacity 164
cfgChassisInRedundancyReserve 164
cfgChassisInPowerServerAllocation 165
cfgChassisInfrastructure InPowerAllocation 165
cfgChassisTotalInPowerAvailable 165
cfgChassisStandbyInPowerCapacity. 165

cfgChassisPowerClear 165
cfgChassisPowerClearTimestamp 165
cfgChassisPowerButtonEnable 165
cfgSystemEnergyConsumptionClear 165

cfgServerInfo **167**
cfgServerInfoIndex 167
cfgServerSlotNumber. 167
cfgServerServiceTag 167
cfgServerName 167
cfgServerFW 167
cfgServerBIOS 167
cfgServerBmcMacAddress 168
cfgServerNic1MacAddress 168
cfgServerNic2MacAddress 168
cfgServerNic3MacAddress 168
cfgServerNic4MacAddress 168
cfgServerPriority 168
cfgServerNicEnable 168
cfgServerIPMIOverLanEnable 168
cfgServerPowerBudgetAllocation 168
cfgServerDNSRegisterIMC. 169
cfgServerDNSIMCName 169
cfgServerRootPassword 169
cfgServerFirstBootDevice 169
cfgServerBootOnce. 169
cfgServerPowerConsumption 169

cfgKVMInfo **171**
cfgKVMAccessToCMCEnable 171
cfgKVMFrontPanelEnable 171

cfgAlerting **172**
cfgAlertingEnable. 172

cfgAlertingFilterMask 172
cfgAlertingSourceEmailName 172

4 Diagnostics 173

Using the LCD Panel Interface **173**

LCD Navigation **173**

Main Menu 174
LCD Setup Menu 175
Language Setup Screen 175
Default Screen 175
Graphical Server Status Screen 176
Graphical Module Status Screen 177
Enclosure Menu Screen 177
Module Status Screen 178
Enclosure Status Screen 178
IP Summary Screen 178

Diagnostics **178**

LCD Hardware Troubleshooting **179**

Front Panel LCD Messages **182**

LCD Error Messages **183**

LCD Module and Server Status Information **194**

Index 201

1

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**.

Other Documents You May Need

In addition to this guide, you can access the following guides available on the Dell Support website at support.dell.com/manuals. On the Manuals page, click **Software -> Systems Management**. Click on the appropriate product link on the right-side to access the documents:

- The CMC online Help provides information about using the CMC Web interface.
- 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 CMC is installed:

WARNING: See the Safety and Regulatory information that is 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.

2

RACADM Subcommands

This chapter provides reference to the RACADM commands that allow you to configure and manage the CMC through a text-based interface.

Guidelines to Quote Strings Containing Special Characters When Using RACADM Commands

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

Strings containing the following special characters must be quoted using single quotes or double quotes:

- $ (dollar sign)
- " (double quote)
- ' (single quote)
- ` (back quote)
- \ (backslash)
- ~ (tilde)
- ; (semicolon)
- | (vertical bar)
- ((left parentheses)
-) (right parentheses)
- & (ampersand)
- > (greater than)
- < (less than)
- # (pound)
- ASCII code 32 (space)

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

There are different escaping rules for single quoting versus double quoting.

For double quoting:

The following characters must be escaped by prepending a backslash:

- $ (dollar sign)
- " (double quote)
- ' (single quote)
- ` (back quote)
- \ (backslash)

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

For single quoting:

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

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

"?" 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
clrsel          -- clear the System Event Log (SEL)
cmcchangeover   -- Changes the redundant state of the CMC from
active to standby and vice versa
config          -- modify CMC configuration properties
...
setniccfg       -- modify network configuration properties
setractime      -- set the time on the CMC
setslotname     -- sets the name of the slot in the chassis
setsysinfo      -- set the chassis name and chassis location
sslcertview     -- display a CA/server certificate in the CMC
sslcsrgen       -- 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
143.166.152.113 ether   00:15:C5:48:9C:1D 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. 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: • chassis - this is the default value if -m is not specified. • switch-*n* where *n*=1–6 • kvm
<*action*>	Specifies the action you want to execute on the specified module. <*action*> may be one of the following: • powerdown — (Chassis only) Powers down the chassis. • powerup — (Chassis only) Powers up the chassis. • powercycle — Power cycles the module. • nongracefulshutdown — (Chassis only) Shuts down the chassis non-gracefully. • reset — Performs a hard reset of the module.
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.
```

closessn

Description

Closes a requested session.

NOTE: The session executing this command cannot be closed.

Usage

```
racadm closessn -a
racadm closessn -i <session id>
```

```
racadm closessn -t <session type>
racadm closessn -u <username>
```

Options

Table 2-2. closessn Subcommand Options

Option	Description
`-a`	All sessions are closed.
`-i <session id>`	ID of the session to close.
`-t <session type>`	Type of session(s) to close. Must be one of the following: • serial • telnet • ssh • gui • remoteracadm • kvm
`-u <username>`	User name of the session(s) to close.

Output

```
Session(s) successfully closed
```

Example

- Close session 1234

  ```
  racadm closessn -i 1234
  ```

- Close all sessions for user root

  ```
  racadm closessn -u root
  ```

- Close all GUI sessions

  ```
  racadm closessn -t gui
  ```

- Close all sessions

  ```
  racadm closessn -a
  ```

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.
```

clrsel

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 **getsel**. 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 2-3. clrsel Subcommand Options

Option	Description
-m <*module*>	The value of <*module*> can be `server-n` where *n* can be 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
  ```

cmcchangeover

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 cmcchangeover
```

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 2-4. config Subcommand Options

Option	Description
`-g` <*group*>	Specifies the configuration group the object belongs to. Must be used with the `-o` option. Table 2-5 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`.
`-m` <*module*>	Specifies the module you want to configure. Legal value is `server-`*n*, where *n*=1–16.

Table 2-4. config Subcommand Options *(continued)*

Option	Description
<*value*>	Displays the value that you want to set for the specified object. While specifying <*value*>, see "Guidelines to Quote Strings Containing Special Characters When Using RACADM Commands" on page 17.
`-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: Appendix B, "CMC Property Database Group and Object Definitions" on page 117, provides details about the property groups. See also "getconfig" on page 40.

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

Table 2-5 lists the property groups that can be specified with the **-g** option.

Table 2-5. 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 email alerting, and NTP servers
cfgUserAdmin	Configures CMC users
cfgEmailAlert	Configures CMC e-mail alerting
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

Table 2-5. RACADM Property Groups *(continued)*

Group	Description
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
cfgLDAP	Configures Generic LDAP
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 119).

  ```
  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 as long as 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: The **myrac.cfg** file does not contain password information. You must manually include this password information.

- 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 server serial console.

NOTE: You cannot use this subcommand with remote RACADM.

Usage

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

Options

Table 2-6. connect Subcommand Options

Option	Description
`-b`	Connects to the switch or console using the binary mode. This is an optional argument; a server or a switch must be present.
`server-`*n* or `switch-`*n*	Server or switch to connect to. • `server-`*n* where *n*=1–16 • `switch-`*n* where *n*=<a1 | a2 | b1 | b2 | c1 | c2>

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 96.

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 2-7. deploy Subcommand Options

Option	Description
`-b <device>`	Specifies the first boot device; must be used with `-o`. Use with `-m <module>` to specify for a individual server, or with `-a` for all servers **Legal values:** *device*=None, PXE, HDD, CD-DVD, vFDD, vCD-DVD, iSCSI, SD, FDD
`-o <no|yes>`	Indicates if the server should boot from the device once; must be used with `-o`. Use with `-m <module>` to specify for a individual server, or with `-a` for all servers
`-a`	Creates and enables an iDRAC root user if it does not already exist, and is executed on all the existing servers in the chassis
`-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. **Legal values:** `server-`*n*, where *n*=1–16

Table 2-7. deploy Subcommand Options

Option	Description
`-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. • **ipaddress —** A string representing a valid IP address. For example, 192.168.0.20. • **subnet —** A string representing a valid subnet mask. For example, 255.255.255.0. • **gateway —** A string representing a valid gateway address. For example, 192.168.0.1.
`-d`	Enables DHCP for the specified server. **NOTE:** 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 -m 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.

Dell Feature Cards may contain more than one feature.

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

NOTE: 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 2-8. feature Subcommand Options

Option	Description
`-s`	Displays the status of active features.
`-c`	<*featurename*> must be one of the following: • flexaddress • flexaddressplus
`-d`	Deactivates the feature specified in the **-c** option.

Example

- `racadm feature -d -c flexaddress`

  ```
  The feature FlexAddress is deactivated on the
  chassis successfully
  ```

- `racadm feature -s`

  ```
  Feature Name = FlexAddress

  Date/time Activated = 26 Apr 2010 - 10:16:48

  Feature installed from SD-card serial number =
  TEST01234567890123456789

  Feature Name = FlexAddressPlus

  Date/time Activated = 26 Apr 2010 - 10:16:48

  Feature installed from SD-card serial number =
  TEST01234567890123456789
  ```

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 2-9 lists the status messages returned by the command.

Table 2-9. 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 *racadm racreset* until the CMC module with the feature card installed becomes active.

Usage

```
racadm featurecard -s
```

Options

Table 2-10. 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 =
TEST01234567890123456789
```

fwupdate

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

Description

Updates the firmware on the iKVM, active 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. There can only be a single update operation in progress at any time. In addition, the fwupdate subcommand may only update one or more devices of a single kind at a time.

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

Usage

For local RACADM:

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

racadm fwupdate -f <ftp server ip address or FQDN>
<username> <password> -d <path> [-m <module>]

racadm fwupdate -u -m iominf-<n>

racadm fwupdate -s [-m <module>]

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

For remote RACADM:

```
racadm fwupdate -p -u -d <firmware image>
```

Options

Table 2-11. fwupdate Subcommand Options

Option	Description
`-d` <*path*>	Specifies the source path where the firmware image resides. **Default:** designated TFTP default directory on that host for the file if **-g** option is absent. If **-g** is used, 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 or FQDN*>	Specifies the TFTP server IP address or FQDN used for the firmware image (used with **-g**).
`-f` <*ftp server ip address or FQDN*> <*username*> <*password*>	Specifies the FTP server IP address or FQDN used for the firmware image, along with the username and password. Can only be used with CMC, iKVM, and server iDRAC modules.

Table 2-11. fwupdate Subcommand Options *(continued)*

Option	Description
`-m <module>`	Specifies the module or device to be updated. <*module*> is one of the following values: • `cmc-active` (default) • `cmc-standby` • `kvm` • `server-n` where *n* = 1–16 • `server-generation` where generation = iDRAC or iDRAC6 • `iominf-n` where *n* = 1–6 **NOTE:** CMC version 3.00 accepts IPv4, IPv6, or fully qualified domain names (FQDN) for both FTP and TFTP servers. **NOTE:** You can specify the `cmc-active` and `cmc-standby` modules at the same time along with one or more `server-n` modules. This enables the devices to be updated together. **NOTE:** See "Updating the IOM Infrastructure Device Firmware" section of the "Using the CMC Web Interface" chapter of the *Dell Chassis Management Controller User Guide* for additional information on the IOM infrastructure device firmware update process. **NOTE:** When you use the `server-generation` option, the CMC updates all iDRACs of that particular generation that can be updated. **NOTE:** Verify that the update applied to servers for a particular generation has been validated for all impacted server models.
`-s`	Displays the current status of the firmware update. **NOTE:** Use `-m` to display the status of the module update. Omit `-m` to display the status of the active CMC update. **NOTE:** The `all` module value, used with the -m parameter, may be used to obtain the status of all targets that can be updated.
`-c`	Cancels the current firmware update of a module.
`-p`	Uploads the firmware image from the client. Can be used only with remote RACADM.

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 servers of iDRAC6 generation

```
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 targets that can be updated in the chassis.

  ```
  racadm fwupdate -s -m all
  ```

- Query the current status of the firmware update process for servers 1 and 3.

  ```
  racadm fwupdate -s -m server-1 -m server-3
  ```

- Cancel a firmware update of the active CMC in progress.

  ```
  racadm fwupdate -c -m cmc-active
  ```

- Upload a firmware image from the client and start the firmware update.

  ```
  racadm fwupdate -p -u -d firmimg.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 2-12. getassettag Subcommand Options

Option	Description
`-m <module>`	Specifies the module whose asset tag you want to view. **Legal value:** `chassis` Because there is only one legal value, you can obtain the same output if you do not include this option. **NOTE:** <assettag> is a maximum of 64 non-extended ASCII characters.

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 2-13. getconfig Subcommand Options

Option	Description
`-g <group>`	Specifies the configuration group to display. Table 2-14 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 `server-n`, 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 117, provides details about these property groups. See also "config" on page 25.

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

Table 2-14 lists the property groups that can be specified with the **getconfig** subcommand **-g** option.

Table 2-14. Property Groups for the getconfig Subcommand

Property Group	Description
idRacInfo (read only)	Displays version, build number, and product information for the CMC
cfgLanNetworking	Configures network related properties
cfgIPv6LanNetworking	Displays information for and configures IPv6 network-related properties
cfgCurrentLanNetworking (read only)	Displays the current CMC NIC properties
cfgCurrentIPv6LanNetworking (read only)	Displays the current CMC IPv6 properties.
cfgRemoteHosts	Enables/disables and configures firmware updates and SMTP email alerting
cfgUserAdmin	Configures CMC users
cfgEmailAlert	Configures SMTP email alerts
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	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)
cfgActiveDirectory	Configures Microsoft Active Directory properties
cfgStandardSchema	Configures the Standard Schema settings for Active Directory
cfgChassisPower	Configures power for the chassis

Table 2-14. 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 119):

  ```
  racadm getconfig -g cfgLanNetworking
  ```

- Display the server slot name; the slot name can have a maximum of 15 characters (see "cfgServerName" on page 167):

  ```
  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 particular server:

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

- Display information about the remote syslog for a particular 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
```

Options

Table 2-15. getdcinfo Subcommand Options

Option	Description
-n	Displays the model names for the daughter cards in servers.

Example

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

```
racadm getdcinfo
Group A I/O Type : Gigabit Ethernet
Group B I/O Type : Gigabit Ethernet
Group C I/O Type : Gigabit Ethernet
```

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

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

```
server-15   Not Present   None            N/A       None            N/A
server-16   Not Present   None            N/A       None            N/A
```

```
getdcinfo -n
```

```
<Server#>   <Presence>    <DC1 Model Name>   <DC2 Model Name>
server-1    Present       None               None
server-2    Not Present   None               None
server-3    Not Present   None               None
server-4    Present       None               Broadcom M5708t
server-5    Not Present   None               None
server-6    Not Present   None               None
server-7    Not Present   None               None
server-8    Present       LPe1105-M4         None
server-9    Extension(1)  None               None
server-10   Not Present   None               None
server-11   Not Present   None               None
server-12   Not Present   None               None
server-13   Not Present   None               None
server-14   Not Present   None               None
server-15   Not Present   None               None
server-16   Not Present   None               None
```

getflexaddr

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 2-16. getflexaddr Subcommand Options

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

Example

- Display current flex address 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 flex address 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      00:1C:23:CD:AC:D2 00:1E:C9:FF:E3:21
          Ethernet     (active)

          iSCSI        00:1C:23:CD:AC:D3 00:1E:C9:FF:E3:22
                       (active)

slot1-A2  Gigabit      00:1C:23:CD:AC:D4 00:1E:C9:FF:E3:23
          Ethernet     (active)

          iSCSI        00:1C:23:CD:AC:D5 00:1E:C9:FF:E3:24
                       (active)

slot1-B1  Gigabit      00:1D:09:71:B3:60 00:1E:C9:FF:E3:25(active)
          Ethernet

          iSCSI        00:1D:09:71:B3:61 00:1E:C9:FF:E3:26(active)

slot1-B2  Gigabit      00:1D:09:71:B3:62 00:1E:C9:FF:E3:27(active)
          Ethernet

          iSCSI        00:1D:09:71:B3:63 00:1E:C9:FF:E3:28(active)

slot1-C1  Fiber        10:00:00:00:C9:63 20:01:00:1E:C9:FF:E3:29(active)
          Channel 4    :51:0E

slot1-C2  Fiber        10:00:00:00:C9:63 20:02:00:1E:C9:FF:E3:29(active)
          Channel 4    :51:0D
```

getioinfo

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>	<Role>
switch-1	Dell Ethernet Passthrough	Gigabit Ethernet	Present	OK	ON	Master
switch-2	N/A	None	Not Present	N/A	N/A	N/A
switch-3	Brocade 4424	Fibre Channel 4	Present	OK	ON	Master
switch-4	N/A	None	Not Present	N/A	N/A	N/A
switch-5	N/A	None	Not Present	N/A	N/A	N/A
switch-6	N/A	None	Not Present	N/A	N/A	N/A

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 2-17. getled Subcommand Options

Option	Description
-m <*module*>	Specifies the module whose LED settings you want to view. <*module*> can be one of the following: • `server-`*n* where *n*=1–16 • `switch-`*n* where *n*=1–6 • `chassis` • `cmc-active`

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] [-x]

racadm getmacaddress [-a]
```

Options

Table 2-18. getmacaddress Subcommand Options

Option	Description
`-m` <*module*>	Specifies the module whose MAC address you want to view. <*module*> may be one of the following: • `chassis` • `server-`*n* where *n*=1–16 • `switch-`*n* where *n*=1–6
`-t`	Displays the iSCSI MAC addresses for all servers or the specified server if used with **-m** option.
-x	Displays the extra MACs (Ethernet or iSCSI) for servers with additional LOM MACs and must be used with -m option.
`-a`	Displays the Ethernet and iSCSI MAC/WWN addresses for all iDRAC/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 extra iSCSI MACs for server-1 (if available)

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

- 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 extra MACs for server-1 (if available)

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

<Name>	<Presence>	<BMC MAC Address>	<NIC1 MAC Address>	<NIC2 MAC Address>
server-1	Present	00:11:43:FD:B7:2A	00:11:43:FD:B7:2A	00:11:43:FD:B7:2B
			00:11:43:FD:B7:2C	00:11:43:FD:B7:2D

```
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-  Gigabit    Present                  Not Installed  Not
B          Ethernet                                         Installed

           iSCSI      Present                  Not Installed  Not
                                                             Installed

Server-1-  Fibre      Present                  Not Installed  Not
C          Channel 4                                         Installed

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

           iSCSI      Present                  N/A            N/A

Server-2-  Gigabit    Present                  Not Installed  Not
B          Ethernet                                         Installed

           iSCSI      Present                  Not Installed  Not
                                                             Installed

Server-2-  Fibre      Present                  Not Installed  Not
C          Channel 4                                         Installed

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

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

           iSCSI      Present                  00:18:8B:FF:A 00:18:8B:FF
                                                A:03          :AA:05

Server-4-  Gigabit    Not Present              Not Installed  Not
B          Ethernet                                         Installed

           iSCSI      Present                  Not Installed  Not
                                                             Installed

Server-4-  Fibre      Present                  Not Installed  Not
C          Channel 4                                         Installed

Server-5-  Gigabit    Present      00:19:B9:FF: 00:19:B9:FF:F 00:19:B9:FF
A          Ethernet                FE:E2        C:0C          :FC:0E

           iSCSI      Present                  00:19:B9:FF:F 00:19:B9:FF
                                                C:0D          :FC:0F

Server-5-  Gigabit    Present                  Not Installed  Not
B          Ethernet                                         Installed

           iSCSI      Present                  Not Installed  Not
                                                             Installed

Server-5-  Fibre      Present                  Not Installed  Not
C          Channel 4                                         Installed

Server-6-  Gigabit    Present      00:22:19:D2: N/A            N/A
A          Ethernet                1D:D4

           iSCSI      Present                  N/A            N/A

Server-6-  Gigabit    Present                  Not Installed  Not
B          Ethernet                                         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:F0:B0	00:1E:4F:FF:F0:B2
	iSCSI	Present		00:1E:4F:FF:F0: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	N/A
Switch-2	None	Present	N/A	00:00:00:00:00:00	N/A
Switch-3	None	Present	N/A	00:00:00:00:00:00	N/A
Switch-4	None	Present	N/A	00:00:00:00:00:00	N/A
Switch-5	None	Present	N/A	00:05:1E:08:EB: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, power supply unit, KVM, or I2C cable) in the chassis.

Usage

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

Options

Table 2-19. getmodinfo Subcommand Options

Option	Description
-m <*module*>	Specifies the module whose configuration and status information you want to view. The default command (no options) displays information about all major components in the chassis. <*module*> may be any of the following values: • `server-n` where *n*=1–6 • `switch-n` where *n*=1–6 • `CMC-n` where *n*=1–2 • `fan-n` where *n*=1–9 • `ps-n` where *n*=1–6 • chassis • `kvm` • `io-cable` • `fpc-cable`
-A	Suppresses headers and labels in the output.

Example

- `racadm getmodinfo -m switch-1`

```
<module>      <presence>    <pwrState>    <health>       <svcTag>
Switch-1        Present           ON           OK         CG09074
```

- `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
IO-Cable        Present       ON            OK           ABC1234
FPC-Cable         Present         ON             OK       ABC1234
```

NOTE: For CMC (only) a power state of "Primary" denotes Active CMC.

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 2-20. getniccfg Subcommand Options

Option	Description
-m <*module*>	Specifies the module whose network settings you want to view. <*module*> may be any of the following: • `chassis` • `server-`*n* where *n*=1–16 • `switch-`*n* where *n*=1–6 **Default**: `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
```

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

- 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 2-21. 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.
`-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 **more** 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 **more** 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
  ```

getractime

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

Options

Table 2-22. getractime Subcommand Options

Option	Description
(None)	Displays the date and time using a format similar to the UNIX 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: `racadm setractime -z *`
-n	Displays the NTP peer information.

Examples

- `racadm getractime`

  ```
  Wed, 22 Jul 2009 03:46:49 PM
  ```

- `racadm getractime -z`

  ```
  Wed, 22 Jul 2009 03:47:10 PM, timezone: CST6CDT
  ```

- `racadm getractime -d`

  ```
  20090722154740
  ```

- `racadm getractime -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 l 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 2-23. getsel Subcommand Options

Option	Description
`-s <start record>`	Specifies the starting record used for the display
`-c <count>`	Provides the maximum number of records to display.
`-i`	Displays the number of total records available.
`-m`	Displays one screen of information at a time and prompts the user to continue to next screen (similar to the UNIX **more** 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 **more** 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 system 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

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

getslotname

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

Description

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

Usage

```
racadm getslotname

racadm getslotname -i <slot ID>

racadm getslotname -h
```

Options

Table 2-24. 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. **Legal values:** 1–16

Table 2-24. getslotname Subcommand Options

Option	Description
-h	Specifies whether to use the slot name or the hostname (if available). 1=use hostnames, 0=use slotnames

Example

- `racadm getslotname`

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

- `racadm getslotname -i 1`

```
Webserver-1
```

getssninfo

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

Description

Displays information about an active user session, including session ID, 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 2-25. getssninfo Subcommand Options

Option	Description
-u <*username***>** -u *	Limits the printed output to detailed session records for the specified user. 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`

```
SSNID    Type     User    IP Address     Login Date/Time
56367    SSH      root    10.9.72.252    11/28/2007 23:13:32
1234     KVM      root    169.254.31.30  11/28/2007 18:44:51
18573    SSH      root    10.9.72.252    11/28/2007 23:22:37
```

- `racadm getssninfo -A`

  `\12435\Telnet\root\143.166.174.19\05/01/2007 02:13:59`

- `racadm getssninfo -A -u *`

  `\1234\KVM\root\169.254.31.30\11/28/2007 18:44:51`
  `\56367\SSH\root\10.9.72.252\11/28/2007 23:22:37`

- `racadm getssninfo`

SSNID	Type	User	IP Address	Login Date/Time
56367	SSH	root	10.9.72.252	11/28/2007 23:13:32
1234	KVM	root	169.254.31.30	11/28/2007 18:44:51
18573	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 2-26. getsvctag Subcommand Options

Option	Description
(none)	Displays service tags for all modules on the chassis (including the chassis).

Table 2-26. getsvctag Subcommand Options *(continued)*

Option	Description
-m <*module*>	Displays the service tag for the specified module. <*module*> may be one of the following: • `server-`*n* where *n*=1–16 • `switch-`*n* where *n*=1–6 • `chassis`

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 2-27. getsysinfo Subcommand Options

Option	Description
-d	Displays CMC information.
-c	Displays chassis information.
-A	Suppresses headers and labels in the output.
-4	Displays the CMC IPv4 information.
-6	Displays the CMC IPv6 information.

Example

- `racadm getsysinfo -c`

```
CMC Information:
CMC Date/Time                = Mon, 02 May 2010 02:33:47
Active CMC Location          = CMC-1
Active CMC Version           = 3.0
Standby CMC Version          = 3.0
Last Firmware Update         = Mon, 02 May 2010 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:"

"Sun Dec 20 2009 01:00"

"CMC-1"

"3.00"

"N/A"

"Thu Dec 17 2009 20:58"

"A01"
```

```
"CMC Network Information:"
"1"
"00:1E:4F:1F:37:82"
"0"
"cmc-7G2WXF1"
"fwad.lab"
"1"
"0"
"0"
"CMC IPv4 Information:"
"1"
"192.168.0.120"
"192.168.0.1"
"255.255.255.0"
"0"
"0.0.0.0"
"0.0.0.0"
"1"
"CMC IPv6 Information:"
"1"
"1"
"fe80::21e:4fff:fe1f:3782/64"
"2009:123::1a9d:1532:4903:529c/64"
"fd88:2::21e:4fff:fe1f:3782/64"
"fd88:1::21e:4fff:fe1f:3782/64"
"fe80::21c:23ff:fe77:6215"
"2009:123::1"
"::"
"1"
"Chassis Information:"
"PowerEdge M1000e              "
"00000"
"7G2WXF1"
"CMC-7G2WXF1"
"[UNDEFINED]"
```

```
"1.0"
"ON"
```

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 2-28. 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.

Table 2-28. gettracelog Subcommand Options

Option	Description
-m	Displays one screen of information at a time and prompts you to continue to the next screen (similar to the UNIX **more** 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 **more** 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 2-29. getversion Subcommand Options

Option	Description
(none)	Displays the version information for all targets or devices.
-m <*module*>	Specifies the module or device for which you want to retrieve the version information. <*module*> is one of the following: • server-*n* where *n* = 1–16. For example, server-1. • cmc-*n* where n= 1 or 2. For example, cmc-2.
-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 2-30. 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
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
Active CMC Version      = X08
Standby CMC Version     = N/A
Last Firmware Update    = Wed Nov 21 21:37:56 2007
Hardware Version        = 2
Current IP Address      = 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 or RAC. For the CMC, the reset event is written into the CMC log.

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

Usage

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

Options

Table 2-31. racreset Subcommand Options

Option	Description
-m <*module*>	<*module*> must be server-*n* where n=1 - 16 **NOTE:** You can specify multiple modules, such as `-m <module 1> -m <module 2>` and so on.

Example

- Executes a reset sequence on the CMC

  ```
  racadm racreset
  ```

- Reset server 1

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

- Reset servers 1 and 3

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

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 2-32. racresetcfg Subcommand Options

Option	Description
-m <*module*>	Specifies the module whose database properties you want to reset. <*module*> may be any of the following: • `chassis` • `kvm` • server-*n* where n=1 - 16 **Default:** `chassis`

Example

```
racadm racresetcfg -m kvm
```

```
The configuration has initiated restoration to factory
defaults.
```

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

- racadm racresetcfg -m server-9

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

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 2-33. remoteimage Subcommand Options

Option	Description
-action	Only one of the following actions is allowed: • -c — Connects a remote image • -d — Disconnects a remote image • -e — Deploys a remote image • -s — Displays connection status
-servers	Only one of the following actions is allowed: • -m <server-*n*> — Where *n* is 1 to 16 • -a — For slots of all present servers

Table 2-33. remoteimage Subcommand Options

Option	Description
<options>	Only apply to connect and deploy actions: • -u — user name • -p — password • -l — image path, must be a quoted string. For details, see "Guidelines to Quote Strings Containing Special Characters When Using RACADM Commands" on page 17. The image path can be on a Windows SMB mounted drive or a Linux/Unix NFS mounted drive. SMB mounted path: //*<ipaddress* **or** *domain name>/<share_name>/<path_to_image>* NFS mounted path: *<ipaddress>:/<path_to_image>* The extension of *<path_to_image>* must be either **.iso** or **.img**.

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 2-34. serveraction Subcommand Options

Option	Description
-m server-*n*	Specifies the server by its slot number (1–16) in the chassis. For example, server-2.
-a	The specified power action is performed on all servers
<*action*>	Specifies the action. <*action*> may be one of the following: • powerdown — Powers down the server. • powerup — Powers up the server. • powercycle — Issues a power-cycle operation on the server. • hardreset — Performs a reset (reboot) operation on the server. • graceshutdown — Shuts down the server gracefully. • powerstatus — Displays current power status (Online, Off) of the server. • reseat — Performs a virtual reseat of the server. **NOTE:** The reseat action requires the -f option to force the action. **NOTE:** You cannot use the powerstatus action with the -a option.

Example

- ```
  racadm serveraction -m server-1 powerup
  Server power operation successful.
  ```

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

- ```
  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 2-35. setassettag Subcommand Options

Option	Command
-m <*module*>	Specifies the module whose asset tag you want to set. **Legal value:** `chassis` **NOTE:** Because there is only one legal value, you can obtain the same output if you do not include this option. **NOTE:** <assettag> is a maximum of 64 non-extended ASCII characters.

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>
```

NOTE: Chassisname is a maximum of 64 non-extended ASCII characters

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 2-36. setflexaddr Subcommand Options

Option	Description
`-i` <*slot#*> <*state*>	Enables/disables FlexAddress for the specified slot.
`-f` <*fabricName*> <*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 2-37. setled Subcommand Options

Option	Description
-m <*module*>	Specifies the module whose LED you want to configure. <*module*> can be one of the following: • `server-`*n* where *n*=1–16 • `switch-`*n* where *n*=1–6 • `cmc-active` • `chassis`
-l <*ledstate*>	Specifies whether the LED should blink. <*ledstate*> can be one of the following: • `0` — no blinking • `1` — blinking

Example

- ```
  racadm setled -m server-1 -1 1
  LED state was set successfully.
  ```

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

- ```
  racadm setled -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>] -p [-6]

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

Options

Table 2-38. setniccfg Subcommand Options

Option	Description
`-m <module>`	Specifies the module for which you want to set the IP configuration. <*module*> can be any of the following: • `server-n` where *n*=1–16 • `switch-n` where *n*=1–6 • `chassis` If the **-m** option is excluded, the module defaults to `chassis`.
`-d`	Enables DHCP for the Ethernet management port (default is DHCP enabled).
`-6`	Displays the IPv6 information.
`-s`	Enables static IP settings by specifying the IP address, subnet mask, and gateway. <*ipAddress*>, <*netmask*>, and <*gateway*> must be typed as dot-separated strings. If this option is not supplied, the existing static settings are used.

Table 2-38. setniccfg Subcommand Options *(continued)*

Option	Description
-v	Arguments: • <*vlan id*> = 1 to 4000 (1 and 4000 inclusive), 4021 to 4094 (4021 and 4094 inclusive) • <vlan priority> = 0 to 7 (0 and 7 inclusive). The highest VLAN priority (7) is intended for network-critical traffic such as Routing Information Protocol (RIP) and Open Shortest Path First (OSPF) table updates. The lowest priority value (0) is the default. (RIP) and Open Shortest Path First (OSPF) table updates. The lowest priority value (0) is the default. • (no value supplied): Remove the vlan tag
-o	Disables the Ethernet management port completely.
-p	Disables IPv4/IPv6 protocol.
-k	Specifies the speed and duplex for the NIC. Arguments: • <*speed*> = 10, 100 • <*duplex*>= half, full • (no value supplied): Autonegotiate

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.`

- racadm setniccfg -v l 7

```
Object value modified successfully
```

- racadm setniccfg -v

```
Object value modified successfully
```

- racadm setniccfg -m server-1 -v l 7

```
Object value modified successfully
```

- racadm setniccfg -m server-1 -v

```
Object value 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.mmmmmmsoff>
racadm setractime -l <yyyymmddhhmmss> [-z <zone>]
```

Options

Table 2-39. setractime Subcommand Options

Option	Description
-d	Sets the time in the string *yyyymmddhhmmss.mmmmmmsoff* where: • *yyyy* is a the year • *mm* is the month • *dd* is the day • *hh* is the hour • *mm* is the minutes • *ss* is the seconds • *mmmmmm* is the number of microseconds • *s* is a + (plus) sign or a – (minus) sign, which indicates the sign of the offset • *off* is the offset in minutes **NOTE:** The *off* is the offset in minutes from GMT and must be in 15-minute increments.
-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: • ? - lists the major timezone names/prefixes • * - lists every time zone index and name • prefix* - lists every time zone index and name that matches the prefix • index - sets the time zone to the given time zone index • name - sets the time zone to the given time zone name

Table 2-39. setractime Subcommand Options

Option	Description
-l	Sets the local date and time in the string *yyyymmddhhmmss* where: • *yyyy* is a the year • *mm* is the month • *dd* is the day • *hh* is the hour • *mm* is the minute • *ss* is the second **NOTE:** 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.

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

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

NOTE: The OMSA server agent must be present and running on the server to use the Display Hostname feature. If the agent is not running, the setting is ignored. For more information, see the *Dell OpenManage Server Administrator User's Guide* at **support.dell.com/manuals**.

Usage

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

racadm setslotname -h <enabled>
```

Options

Table 2-40. setslotname Subcommand Options

Option	Description
<*slotID*>	Displays the location of the slot in the chassis. **Legal values:** 1–16
<*slotname*>	The new name to assign to the slot.
<enabled>	Sets whether the server's hostname is used for display purposes. 1 = enabled. Legal values: 0, 1

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 2-41. setsysinfo Subcommand Options

Option	Description
<*string*>	Indicates a maximum of 64 non-extended ASCII chassis name or location.
-c	Sets the chassis name or location.

Example

```
racadm setsysinfo -c chassisname "Dell Rack System"
The chassis name was set successfully.
```

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 and 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 2-42. 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. **NOTE:** 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 `svcacct`.
`-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 0xfff -t ""
  ```

- Specify the file containing the key text to upload

  ```
  racadm sshpkauth -i svcacct -k 1 -p 0xfff -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 2-43. sslcertdownload Subcommand Options

Option	Description
-t	Specifies the type of certificate you want to download: 1 — server certificate 2 — Microsoft Active Directory or Generic LDAP 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 2-44. sslcertupload Subcommand Options

Option	Description
`-t` <*type*>	Specifies the type of certificate to upload: 1 — Server certificate 2 — Active Directory or Generic LDAP certificate 5 — Kerberos Keytab 6 — Server certificate and key
`-f` <*filename*>	Specifies the file name on the local file system from which to upload.
`-k`	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 2-45. 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 2-46. sslcsrgen Subcommand Options

Option	Description
`-g`	Generates a new CSR. The **-g** option cannot be used with the **-s** option.
`-s`	Returns the status of a CSR generation process: • CSR was generated successfully. • CSR does not exist. • CSR generation in progress. 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 2-47. testemail Subcommand Options

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

Example

```
racadm testemail -i 1
Test email sent successfully.
```

testfeature

Description

Generic test command consisting of several sub-commands that allow you to verify the configuration and operation of specific features.

Options

Table 2-48. testfeature Subcommand Options

Option	Description
-f <*feature*>	Specifies the feature name. **testfeature** supports the following features: • ad — Tests Active Directory configuration using simple authentication (user name and password) • adkrb — Tests Active Directory configuration using Kerberos authentication • ldap — Tests LDAP configuration and operation (requires user name and password)
-u <*username*>	The user name specified in an appropriate format for the selected authentication method. That is, Active Directory users are specified as user_name@domain_name.
-p <*password*>	The password for the indicated user account.
-d <*bitmask*>	A bitmask (specified as a hexadecimal value) to select various diagnostic messaging levels. This option is optional. **NOTE:** -d option is not supported with the remote racadm interface.

Examples

- `testfeature –f ad –u user@domain –p secret`

  `SUCCESSFUL: User permissions are xxxxxppp`

  NOTE: The last three digits are the user's permissions.

- `testfeature –f adkrb –u user_name@domain_name`

  `SUCCESSFUL: User permissions are 80000fff`

- `testfeature -f ldap -u harold -p barrel`

  `SUCCESSFUL: User permissions are 0x00000fff`

Subcommands

testfeature -f ad

Usage

```
testfeature -f ad -u <username> -p <password> [-d
<diagnostic-message-level>]
```

This subcommand tests Active Directory configuration using simple authentication (user name and password). Use the optional `-d` switch to obtain additional diagnostic information, as needed.

This subcommand when executed performs the following:

- Checks command syntax
- Verifies whether the required system resources are available
- Validates Active Directory configuration
- Verifies the SSL certificate and if the certificate signing request (key) exists
- Acquires LDAP and Global Catalog Service records from DNS
- Acquires user privileges from the Active Directory server
- Checks the time to acquire user privileges with the allotted time to login

NOTE: In the event of an error, the command displays the test that failed and all the the tests performed earlier to the test that failed, including all the error messages.

testfeature -f adkrb

Usage

```
testfeature -f adkrb -u <username> [-d <diagnostic-
message-level>]
```

This subcommand tests the Active Directory configuration using Kerberos authentication (single sign-on or Smart Card login). Use the optional **-d** switch to obtain additional diagnostic information, as needed. This subcommand when executed performs the following:

- Checks command syntax
- Verifies if the required system resources are available
- Validates Active Directory configuration
- Verifies if the SSL certificate and certificate signing request (key) exists
- Acquires LDAP and Global Catalog Service records from DNS
- Verifies if the CMC can acquire CMC, LDAP and Global Catalog servers FQDN through reverse IP lookups
- Verifies that the CMC principal name matches the principal name in the uploaded Keytab file
- Verifies that the CMC acquires a Kerberos TGT.
- Acquires user privileges from the Active Directory server.
- Checks the time to acquire user privileges with the allotted time to login

NOTE: In the event of an error, the command outputs all tests performed up to and including the test that failed, as well as all error messages.

testfeature -f ldap

Usage

```
testfeature -f ldap -u <username> -p <password> [-d
<diagnostic-message-level>]
```

This subcommand tests LDAP configuration and operation, and reports success as each stage of the authentication process proceeds.On successful completion, this command prints the CMC privileges assumed by the specified <username>.

If a failure occurs, the command terminates with an error message that displays the required corrective action. Use the optional **-d** switch to obtain additional diagnostic information, as needed.

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 2-49. 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
```

3

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 25) and **getconfig** (see "getconfig" on page 40) 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:

```
abcdefghijklmnopqrstuvwxwz

ABCDEFGHIJKLMNOPQRSTUVWXYZ

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

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

Examples:

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

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

cfgNicVLanId

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

- **Legal values:** 1 – 4000, and 4021 – 4094
- **Default:** 1

Example:

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

cfgNicVLanPriority

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

Example:

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

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 of 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 these 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.

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

NOTE: The CMC uses its MAC address for its DUID (DUID-LL) when communicating with a DHCPv6 server.

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 only valid 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 only valid 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 is 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.

cfgRhostsSmtpServerIpAddr

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 and 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 and 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 and 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

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

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=
cfgRhostsSmtpServerIpAddr=localhost.localdomain
cfgRhostsNtpEnable=0
cfgRhostsNtpServer1=
cfgRhostsNtpServer2=
cfgRhostsNtpServer3=
cfgRhostsNtpMaxDist=16
cfgRhostsSyslogEnable=0
cfgRhostsSyslogPort=514
```

```
cfgRhostsSyslogServer1=
cfgRhostsSyslogServer2=zz
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. For more details see "Guidelines for quoting strings containing special characters."

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

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

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

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

NOTE: If 0 (no timeout), the network connection will not send keep alive packets to probe the client. Otherwise, keep alive packets are sent to guarantee that the client is responding.

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

NOTE: If 0 (no timeout), the network connection will not send keep alive packets to probe the client. Otherwise, keep alive packets are sent to guarantee that the client is responding.

cfgSsnMgtRacadmTimeout

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

- **Configuration range:** 10 – 1920 seconds
- **Default:** 60 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 character that aborts the serial text console connect (or racadm connect) command.

NOTE: The CTRL key is represented by using the ^ (carat) character.

NOTE: The CTRL key does not generate a character by itself, but must be struck simultaneously with another key to generate a character.

For example, striking both the CTRL key and the \ key simultaneously (rather than sequentially) is denoted as ^\.

Configuration options: The value must start with the ^ character, and be followed by one of the characters:

- a-z
- A-Z
- [
-]
- \

Default: ^\

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 maximum 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
```

cfgOobSnmp

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.

cfgOobSnmpAgentEnable

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 or 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

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

cfgRacTuneHttpsPort

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

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

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

cfgRacTuneTelnetPort

Specifies the port number used for the CMC telnet interface.

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

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

cfgRacTuneSshPort

Specifies the port number used for the CMC SSH interface.

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

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

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. **cfgRacTuneIpRanbeMask** 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. **cfgRacTuneIpRanbeMask** 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 number of seconds, from the Coordinated Universal Time (UTC)/Greenwich Mean Time (GMT). This value is negative if the 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=-18000
# cfgRacTuneDaylightOffset=3600
```

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 108.

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=
```

cfgLDAP

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 Generic LDAP properties.

cfgLDAPEnable

Enables or disables Generic LDAP user authentication on the CMC. If this property is disabled, local CMC authentication is used for user logins.

NOTE: Enabling this option turns off **cfgADEnable**.

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

cfgLDAPServer

Specifies the Fully Qualified Domain Name or IP address of the server. IPv4 and IPv6 are supported.

NOTE: You can specify multiple servers by separating each server with a comma.

For example, example.com, sub1.example.com

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

cfgLDAPPort

Specifies the SSL port to use.

- **Configuration range:** 1– 65535
- **Default:** 636

cfgLDAPBaseDN

Specifies a BaseDN from which to start searches.

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

cmfgLDAPUserAttribute

Use this attribute to match user ID.

- **Configuration options:** String of up to 254 characters
- **Default:** uid

cfgLDAPGroupAttribute

Use this attribute to match groups.

- **Configuration options:** String of up to 254 characters
- **Default:** [null] uses uniqueMember and member by default

cfgLDAPGroupAttributeIsDN

If enabled, the CMC performs DN matching, otherwise the CMC uses the user name provided at login for matching.

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

cfgLDAPBindDN

Specifies the distinguishing name of a user in the directory to bind to the server to search for a user.

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

NOTE: If **cfgLDAPBindDN** is [null] and **cfgLDAPBindPassword** is [null], then the CMC attempts an anonymous bind.

cfgLDAPBindPassword

Specifies the password corresponding to the user configured in the **cfgLDAPBindDN** property.

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

NOTE: If **cfgLDAPBindDN** is [null] and **cfgLDAPBindPassword** is [null], then the CMC attempts an anonymous bind.

cfgLDAPSearchFilter

If the user attribute cannot uniquely identify the login user within the chosen baseDN, then this command can be used to filter out other results. If not provided, defaults to (objectClass=*), which searches for all objects in the tree. The search filter only applies to user DN search, not the group membership search.

- **Configuration options:** String of up to 1024 characters
- **Default:** [null]

cfgLDAPCertValidationEnable

Enables or disables the SSL certificate check.

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

cfgLDAPNetworkTimeout

Configures the network timeout in seconds.

- **Configuration options:** positive integer
- **Default:** 30 seconds

cfgLDAPSearchTimeout

Configures the search timeout in seconds.

- **Configuration options:** positive integer
- **Default:** 120 seconds

cfgLDAPSRVLookupEnable

Configures the CMC to query a DNS server for SRV records.

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

cfgLDAPSRVLookupDomainName

Configures the domain name to be used in the SRV lookup.

- **Configuration options:** String of up to 254 alphanumeric characters and hyphens. The string must begin with a letter.
- **Default:** [null]

cfgLDAPSRVLookupServiceName

Configures the service name to be used in the SRV lookup.

- **Configuration options:** String of up to 254 characters
- **Default:** ldap

cfgLDAPRoleGroup

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 Generic LDAP Role group definitions. This object defines the CMC privileges that LDAP-authenticated users are granted.

cfgLDAPRoleGroup is indexed, containing instances numbered from 1 to 5. Each object instance consists of a pair of properties:

- cfgLDAPRoleGroupDN: an LDAP distinguished name (DN)
- cfgLDAPRoleGroupPrivilege: a CMC privilege map

Each LDAP-authenticated user assumes the total set of CMC privileges assigned to the matching LDAP distinguished names that the user belongs to.

That is, if the user belongs to multiple role group DNs, the user receives all associated privileges for those DNs.

cfgLDAPRoleGroupDN

Configures the LDAP distinguished name (DN) for the role group instance.

Example

```
racadm getconfig -g cfgLDAPRoleGroup -o
cfgLDAPRoleGroupDN -i 1 cn=everyone,ou=groups,dc=
openldap,dc=com
```

cfgLDAPRoleGroupPrivilege

Configures the CMC privilege mask (see cfgUserAdminPrivilege) for the role group instance.

Example

```
racadm getconfig -g cfgLDAPRoleGroup -o
cfgLDAPRoleGroupPrivilege -i 1 0x0
```

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

cfgADRacDomain

Specifies the Active Directory domain on which the CMC resides.

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

cfgADRootDomain

Specifies the root domain of the domain forest.

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

cfgADRacName

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]

cfgADAuthTimeout

Specifies the number of seconds to wait for Active Directory authentication requests to complete before timing out.

- **Configuration range:** 15–300
- **Default:** 120

cfgADType

Indicates the schema type (extended or standard) to use with Active Directory.

- **Configuration options:** 1 (extended), 2 (standard)
- **Default:** 1 (extended)

cfgADSpecifyServerEnable

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:** 0x00000000–0x00000fff
- **Default:** [null]

Example

```
racadm getconfig -g cfgStandardSchema

# cfgSSADRoleGroupIndex=1
cfgSSADRoleGroupName=blsys-1
cfgSSADRoleGroupDomain=
cfgSSADRolGroupPrivilege=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 input 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 input 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 server throttling is necessary to achieve the power goal based on the value for this setting.

- **Configuration range:** 2715–11637 watts
- **Default:** 11637 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 server throttling is required. This command generates an error if the value for this setting is lower than the minimum power required for the chassis configuration.

- **Configuration range:** 2715–11637 watts
- **Default:** 11637 watts

cfgChassisPowerCapBTU

Indicates the maximum power consumption limit (in BTU/hr) for the entire chassis. The command generates an error if server throttling is necessary to achieve the power goal based on the value for this setting.

- **Configuration range:** 9264 – 39707 BTU/hr
- **Default:** 39707 BTU/hr

cfgChassisPowerCapFBTU

Indicates the maximum power consumption limit (in BTU/hr) for the entire chassis. Use **cfgChassisCapFBTU** when power consumption is to be changed regardless of whether server throttling is required. The command generates an error if the value for this setting is lower than the minimum power required for the chassis configuration.

- **Configuration range:** 9264 – 39707 BTU/hr
- **Default:** 39707 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 server throttling is necessary to achieve the power goal based on the value for this setting.

- **Configuration range:** 23 –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 server throttling is required.

- **Configuration range:** 23-100
- **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)

cfgChassisAllow110VACOperation

Enables or disables normal chassis power allocations when any power supply unit is connected to 110V AC service. If disabled and 110V power supplies are detected, all subsequent server power allocation requests are denied. In this mode additional servers cannot be powered on, regardless of server priority.

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

cfgChassisMaxPowerConservationMode

Enables or disables max power conservation mode. When enabled, all servers are immediately reduced to their minimum power levels, and all subsequent server power allocation requests are denied. In this mode performance of powered on servers may be degraded, and additional servers cannot be powered on, regardless of server priority.

- **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. There is no default as this parameter is very specific to the particular customer configuration.

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=11637 W
cfgChassisPowerCapF=11637 W
cfgChassisPowerCapBTU=39707 BTU/hr
cfgChassisPowerCapFBTU=39707 BTU/hr
cfgChassisPowerCapPercent =100%
cfgChassisPowerCapFPercent =100%
cfgChassisRedundancyPolicy=0
cfgChassisDynamicPSUEngagementEnable=0
# cfgChassisInMaxPowerCapacity=0 W
# cfgChassisInRedundancyReserve=0 W
# cfgChassisInPowerServerAllocation=0 W
# cfgChassisInfrastructureInPowerAllocation=51 W
# cfgChassisTotalInPowerAvailable=0 W
# cfgChassisStandbyInPowerCapacity=0 W
# cfgChassisPowerClear=******** (Write-Only)
# cfgChassisPowerClearTimestamp=18:00:00
12/31/1969
cfgChassisPowerButtonEnable=1
cfgChassisAllow110VACOperation=0

cfgChassisMaxPowerConservationMode=0

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:** Maximum of 15 non-extended ASCII characters, (ASCII codes 32 through 126). For more information, see "Guidelines to Quote Strings Containing Special Characters When Using RACADM Commands" on page 17.
- for quoting strings containing special 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 holds 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 first 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=3.0

# 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 – 0x01ffffff. 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 1`
- `racadm config -g cfgAlerting -o cfgAlertingEnable 1`

  `Object value modified successfully.`

4

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 an 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 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 for server errors, use the iDRAC Web interface or command line interface to clear the server's System Event Log (SEL) to remove the server errors form the LCD.

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
		Back. Highlight and press the center button to return to the previous screen.
		Accept/Yes. Highlight and press the center button to accept a change and return to the previous screen.
		Skip/Next. Highlight and press the center button to skip any changes and go to the next screen.
		No. Highlight and press the center button to answer "No" to a question and go to the next screen.
		Rotate. Highlight and press the center button to switch between the front and rear graphical views of the chassis.
or		**NOTE:** The amber background indicates that the opposite view has errors.
		Component Identify. Blinks the blue LED on a component. **NOTE:** 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
- Yellow — server has one or more non-critical errors
- Red — server has one or more critical 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
- Yellow — module has one or more non-critical errors
- Red — server has one or more critical errors
- Black — module is not present

A blinking light blue rectangle around a module icon indicates that the module is highlighted.

To view the Gra**phical 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 194 and "LCD Error Messages" on page 183 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 183 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.

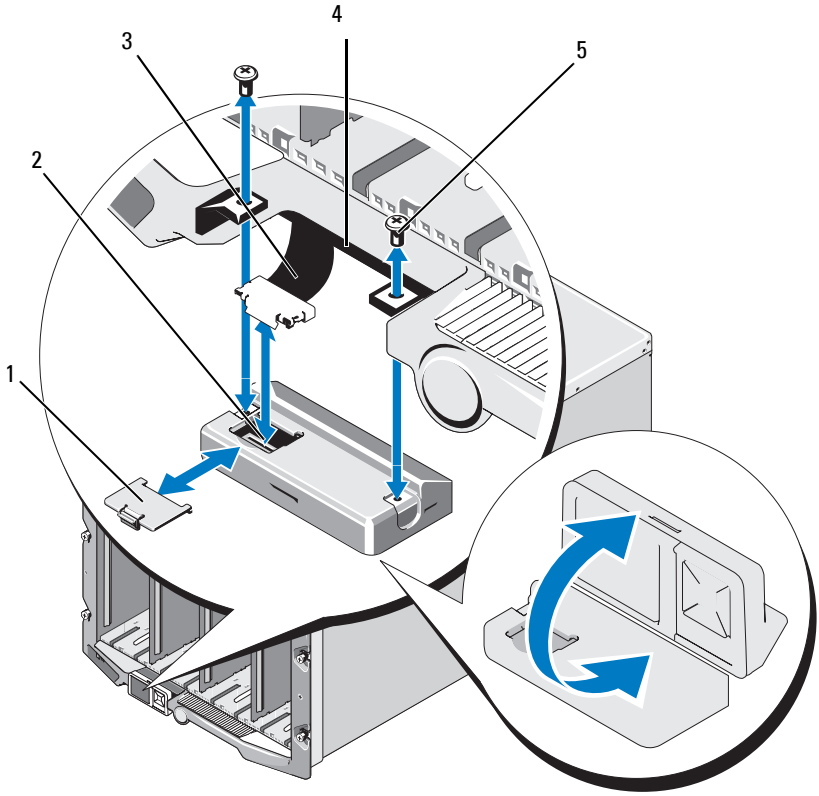
By following the blinking amber icons down through the LCD menu system, you can display the status screen and error messages for the item that has the problem.

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)		

Symptom	Issue	Recovery Action
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.	Review the hardware log using the GUI or RACADM commands. Look for messages that state:
		`Control Panel FPC Cable: Cable sensor for Control Panel, configuration error was asserted`
		`Control Panel I/O Cable: Cable sensor for Control Panel, configuration error was asserted`
		Check that the cables are connected properly.

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

Severity	Message	Cause
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 functionally 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 functionally or features due to incompatible software versions.
Warning	Chassis FW Mismatch: Version Change sensor for Chassis, firmware or software incompatibility (CMC 1 with CMC 2) was asserted.	Loss of CMC redundancy functionally or features due to software versions.

Table 4-3. Enclosure/Chassis Status Screen

Severity	Message	Cause
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.

Table 4-3. Enclosure/Chassis Status Screen *(continued)*

Severity	Message	Cause
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.
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. **NOTE:** 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

Severity	Message	Cause
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

Severity	Message	Cause
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

Severity	Message	Cause
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

Severity	Message	Cause
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

Severity	Message	Cause
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

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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.
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.

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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.
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.

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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.
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.

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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.
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.

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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.
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

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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
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
Critical	Hdwar version err: Version Change sensor, hardware incompatibility was asserted	Incompatible hardware was detected

Table 4-8. Server Status Screen *(continued)*

Severity	Message	Cause
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
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

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 <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
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

Table 4-9. CMC Status *(continued)*

Item	Description
No Errors	If no error occurs then “No Errors” is displayed, else lists error messages.
Firmware Version	Only displays on an active CMC. Displays **Standby** 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.
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 **No Errors** 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

Table 4-10. Chassis/Enclosure Status *(continued)*

Item	Description
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.
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

Item	Description
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

Item	Description
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

Table 4-13. IOM Status

Item	Description
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

Item	Description
Name	iKVM
No Error	If there are no errors, then **No Errors** is displayed; otherwise error messages are listed. The critical errors are listed first, and then the warnings. For more information see "LCD Error Messages"
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	iKVM firmware version
Hardware Version	iKVM hardware version

NOTE: This information is dynamically updated

Table 4-15. Server Status

Item	Description
Example: Server 1, Server 2, etc.	Name/Location
No Errors	If there are no errors, then **No Errors** is displayed; otherwise error messages are listed. The critical errors are listed first, and then the warnings. For more information see "LCD Error Messages"

Table 4-15. Server Status *(continued)*

Item	Description
Slot Name	Chassis slot name. For example, SLOT-01. **NOTE:** You can set this table through the CMC CLI or Web GUI.
Name	Name of the server, which the user can set through Dell OpenManage. The name is displayed only if iDRAC has finished booting, and the server supports this feature, else iDRAC booting messages are displayed.
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 server BIOS POST code messages string.
iDRAC Firmware Version	Displays if iDRAC finished booting. **NOTE:** 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.
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 and IPv6 is enabled.
IP6 Global Address: <address>	Only displays if iDRAC supports IPv6 and 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. For more information on this feature, see "*Server User Guide*"

Index

C

cfgAlerting, 172

CMC
  feature sets, 15

F

feature sets of CMC, 15

P

property database groups
  cfgActiveDirectory, 152, 157
  cfgAlerting, 172
  cfgChassisPower, 161
  cfgCurrentIPv6LanNetworking, 128
  cfgCurrentLanNetworking, 127
  cfgEmailAlert, 136
  cfgIPv6LanNetworking, 124, 128
  cfgKVMInfo, 171
  cfgLanNetworking, 119
  cfgLDAPRoleGroup, 156
  cfgNetTuning, 142
  cfgOobSnmp, 144
  cfgRacSecurity, 150
  cfgRacTuning, 146
  cfgRemoteHosts, 130
  cfgSerial, 139
  cfgServerInfo, 167
  cfgSessionManagement, 138
  cfgStandardSchema, 159
  cfgTraps, 145
  cfgUserAdmin, 134
  displayable characters, 117
  idRacInfo, 117

R

RACADM subcommands
  ?, 18
  arp, 20
  chassisaction, 20
  closessn, 21
  clrraclog, 23
  clrsel, 23
  cmcchangeover, 24
  config, 25
  connect, 29
  deploy, 29
  feature, 32
  featurecard, 33
  fwupdate, 35
  getassettag, 39
  getchassisname, 40
  getconfig, 40
  getdcinfo, 44
  getflexaddr, 46
  getioinfo, 48
  getkvminfo, 49
  getled, 50

getmacaddress, 51
getmodinfo, 56
getniccfg, 58
getpbinfo, 61
getpminfo, 63
getraclog, 64
getractime, 65
getredundancymode, 67
getsel, 67
getsensorinfo, 69
getslotname, 70
getssninfo, 71
getsvctag, 73
getsysinfo, 75
gettracelog, 78
getversion, 79
help, 81
ifconfig, 82
krbkeytabupload, 83
netstat, 83
ping, 84
ping6, 84
racdump, 85
racreset, 88
racresetcfg, 89
remoteimage, 90
serveraction, 91
setassettag, 93
setchassisname, 94
setflexaddr, 94
setled, 95
setniccfg, 96
setractime, 99
setslotname, 101
setsysinfo, 102
sshpkauth, 103
sslcertdownload, 105
sslcertupload, 106
sslcertview, 107
sslcsrgen, 108
sslresetcfg, 109
testemail, 110
testfeature, 111
testtrap, 114
traceroute, 114
traceroute6, 115
racadm utility
subcommands, 17

S

slot names
setting with RACADM, 101
sslcertdownload, 105

W

WS-Management, 15