iDRAC10 RACADM

CLI Reference Guide

1.10.xx Series

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DELL Technologies

Notes, cautions, and warnings

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

CAUTION: A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

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

Contents

1

Introduction

This document provides information about the RACADM subcommands, supported RACADM interfaces, and property database groups and object definitions for iDRAC for the Dell servers.

Topics:

New features added

NOTE: For new attributes added, see the Attribute Registry guide available at dell.com/support

NOTE: For information about the previous releases, to determine the most recent release for your platform, or for the latest documentation, see the KB Article: Integrated Dell Remote Access Controller 10 Versions and Release Notes.

This section provides the list of new features that are added in the following releases:

- Firmware version 1.10.05.00

Firmware version 1.10.05.00

The following features were added or updated in this release:

- The `traceroute6` command is deprecated and replaced by `tracepath6`.

NOTE: The iDRAC10 version supports only a limited set of features in the iDRAC interfaces. For a list of features not supported in iDRAC10 firmware version 1.10.05.00, see the iDRAC10 User's Guide available on the support site.

Using autocomplete feature

Use the autocomplete feature in firmware RACADM to:

- Display all the available RACADM commands in the alphabetical order by pressing the tab key at the `racadm>>` prompt.
- View the complete list, by entering the starting letter of the command at the `racadm>>` prompt and press tab key.

  NOTE:
  - Commands that are displayed or suggested by the shell are case insensitive.
  - If an attribute group does not include any attributes, autocomplete does not display this group at all.

- Navigate the cursor within a command, by pressing:
  - Home key: Directs to the starting of the command.
  - End key: Directs to the end of the command.
- View the history of the commands that were run in the current session by pressing the the Up and Down arrow keys.

- If an attribute value starts with double quotes but does not end with them, the value is still considered and the command runs successfully.
- Exit the Autocomplete mode by entering `Quit` or `Exit`

For example:

- Example 1: `racadm>> <press tab>`

```
ackdriveremoval
arp
autoupdatescheduler
bezelfilter
bioscert
biosscan
cd
clearasrscreen
clearpending
closessn
clrsel
cmreset
coredump
coredumpdelete
coredumpexport
debug
diagnostics
driverpack
eventfilters
exit
exposeisminstallertohost
fcstatistics
FrontPanelError
fwupdate
get
getfanboardinfo
gethostnetworkinterfaces
getled
getmetrics
getniccfg
getraclog
getractime
getremoteservicesstatus
getsel
getsensorinfo
getssninfo
getsvctag
getsysinfo
gettracelog
getversion
heatermanager
help
httpsbootcert
hwinventory
idmconfig
ifconfig
ilkm
infinibandstatistics
inlettemphistory
jobqueue
lclog
license
netstat
networktransceiverstatistics
nicstatistics
pcieslotview
ping
ping6
plugin
quit
racdump
racreset
racresetcfg
recover
remoteimage
```

```
remoteimage2
rollback
sekm
sensorsettings
serialcapture
serveraction
set
setled
setniccfg
spdm
sshpkauth
sslcertdelete
sslcertview
sslcsrgen
sslresetcfg
storage
supportassist
swinventory
switchconnection
systemerase
systemperfstatistics
testalert
testemail
testtrap
tracepath6
traceroute
update
usercertview
vmdisconnect
witnessnodepoweraction
```

- Example 2: `racadm>> get <press tab>`

```
get
getled
getniccfg
getraclog
getractime
getsel
getsensorinfo
getssninfo
getsvctag
getsysinfo
gettracelog
getversion
```

- Example 3:

```
racadm>> getl<press tab>
```

```
racadm>> getled <press enter> or <racadm getled>
LEDState: Not-Blinking
```

- Example 4:

```
racadm>> get bios.uefiBootSettings
BIOS.UefiBootSettings
BIOS.UefiBootSettings.UefiBootSeq
BIOS.UefiBootSettings.UefiPxeIpVersion
```

NOTE:

- In the RACADM autocomplete mode, type the commands directly without giving racadm as prefix.
- NIC/FC/InfiniBand FQDDs are configuration-dependent. To find FQDDs present in the system, run the RACADM command `racadm hwinventory NIC/FC/InfiniBand`

Supported RACADM Interfaces

The RACADM command-line utility provides a scriptable interface that allows you to locally or remotely configure your iDRAC. The utility runs on the management station and the managed system. The RACADM utility is available on the Dell Support page.

The RACADM utility supports the following interfaces:

- Local—Supports running RACADM commands from the managed server's operating system. To run local RACADM commands, install the OpenManage software on the managed server. Only one instance of Local RACADM can be executed on a system at a time. If you try to open another instance, an error message is displayed and the second instance of Local RACADM closes immediately. To download the local RACADM tool from Dell Support page, select **Drivers and Downloads**, select a server, and then select **Systems Management** > **Dell Toolkit**.

  NOTE: Local RACADM and local RACADM proxy runs with root user privilege.

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

  NOTE:
  - You must have administrator privileges to run RACADM commands using Remote RACADM.
  - An ESXi operating system allows up to 1020 characters in a RACADM command. This is limited to local and remote RACADM interfaces.

  NOTE: Remote and Local RACADM, which are part of RACADM CLI, are unavailable in iDRAC10 1.10.05.00 version. However, you can use RACADM CLI through the iDRAC SSH interface.

  For more information about the options, see RACADM subcommand parameters and options. To download the local RACADM tool, go to PowerEdge Manuals, select the wanted server, and then click **Drivers & downloads**.

RACADM Syntax Usage

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

Proxy parameters

Some commands do not support setting the proxy parameters if the share location (-l) is HTTP/HTTPS. To perform the operation with HTTP or HTTPS through a proxy, the proxy parameters must be first configured using the lifecyclecontroller.lcattributes. Once these proxy parameters are configured, they become the part of default configuration; the proxy attributes should be cleared to end use of the HTTP/HTTPS proxy.

The valid lifecyclecontroller.lcattributes HTTP/HTTPS proxy parameters are:

- `UserProxyUserName`
- `UserProxyPassword`
- `UserProxyServer`
- `UserProxyPort`
- `UserProxyType`

To view the list of proxy attributes, use `racadm get lifecycleController.lcAttributes`.

Supported Storage Controller cards

The following table lists the supported Storage Controller cards:

PERC 12	PERC H965i Front DC-MHS, PERC H965i Adapter, and PERC H965e Adapter
BOSS Cards cards	BOSS N1

Other Documents You May Need

In addition to this guide, you can access the following guides available on the Dell Support website at iDRAC Manuals. To access the documents, click the appropriate product link.

- The Integrated Dell Remote Access Controller User's Guide provides information about configuring and using an iDRAC to remotely manage and monitor your system and its shared resources through a network.
- The iDRAC10 Attribute Registry provides information about all attributes to perform get and set operations using RACADM interface.
- Documentation specific to your third-party management console application.
- The Dell OpenManage Server Administrator's User's Guide provides information about installing and using Dell OpenManage Server Administrator.
- The Dell Update Packages User's Guide provides information about obtaining and using Dell Update Packages as part of your system update strategy.
- The Glossary provides information about the terms used in this document.

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

- The Hardware Owner's Manual provides information about system features and describes how to troubleshoot the system and install or replace system components.
- Documentation for any components you purchased separately provides information to configure and install the options.
- Release notes or readme files may be included to provide last-minute updates to the system or documentation or advanced technical reference material intended for experienced users or technicians.

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

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

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

Accessing documents from the Dell support site

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

- Using the following links:
  - For all Enterprise Systems Management documents—ESM Manuals
  - For OpenManage documents—OpenManage Manuals
  - For iDRAC and Lifecycle Controller documents—iDRAC Manuals
  - For OpenManage Connections Enterprise Systems Management documents—OM Connections Enterprise Systems Management Manuals
  - For Serviceability Tools documents—Software Serviceability Tools
  - For Client Command Suite Systems Management documents—Client System Management Manuals
- From the Dell Support site:
  1. Go to the Dell Support site.
  2. Under **Browse all products** section, click **Software**.
  3. In the **Software** group box, click the required link from the following:
     - **Enterprise Systems Management**
     - **Client Systems Management**
     - **Serviceability Tools**
  4. To view a document, click the required product version.
- Using search engines:
  - Type the name and version of the document in the search box.

Contacting Dell

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

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

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

2

Running Get and Set

This section provides more information about the RACADM Get and Set subcommands including the syntax and valid entries.

For more information about all attributes to perform the `get` and `set` operations, see the Integrated Dell Remote Access Controller Attribute Registry available on the iDRAC Manuals page.

Topics:

get

Table 1. get command parameters and options

get	
Description	Displays the value of one or more objects. The `get` subcommand has two forms. • Displays the value of a single object. • Exports the value of multiple objects to a file. It supports multiple object value exports in the below file format: • Server Configuration Profile(SCP) XML and JSON format—XML and JSON format files can be imported from a local file, from an NFS, CIFS, HTTP, HTTPS, FTP, and TFTP network share. **NOTE:** You need admin user privilege to perform import and export SCP operations. **NOTE:** • Some objects may have a pending value if a `Set` operation is performed on the object through a reboot job. To complete the pending operation, schedule the job using a `jobqueue` command, and then check for completion of the job using the returned Job ID. For more information, see jobqueue. • For more information about the `get` subcommand, run the RACADM command `racadm help get` • For HddSeq, BootSeq and UefiBootSeq attributes, a maximum of 32 device list is supported. For Unique FQDDs, use the iDRAC Redfish interface.

Synopsis	Single-object Get
	`racadm get <FQDD Alias>.<group>`
	`racadm get <FQDD Alias>.<group>.<object>`
	`racadm get <FQDD Alias>.<group>.[<index>].<object>`
	`racadm get <FQDD Alias>.<index>.<group>.<index>.<object>`

Table 1. get command parameters and options (continued)

get	

	Multi-object Get
	`racadm get -f <filename> -t xml -l <NFS share> [--clone | --replace ] [--includeph]`
	`racadm get -f <filename> -t xml -l <NFS share> -c <FQDD>[,<FQDD>*]`
	`racadm get -f <filename> -t xml -u <username> -p <password> -l <FTP share> -c <FQDD>`
	`racadm get -f <filename> -t xml -l <TFTP share> -c <FQDD>`
	`racadm get -f <filename> -t xml -u <username> -p <password> -l <CIFS share> [--clone | --replace ] [--includeph]`
	`racadm get -f <filename> -t xml -u <username> -p <password> -l <CIFS share> -c <FQDD>[,<FQDD>*]`
	`racadm get -f <filename> -t xml -u <username> -p <password> -l <HTTP share> -port <port number> -c <FQDD>`
	`racadm get -f <filename> -t xml -u <username> -p <password> -l <HTTPS share> -port <port number> -c <FQDD>`
	`racadm get -f <filename> -t xml --customdefaults`
	`racadm get -f -t xml -l <NFS share>  [--clone | --replace ] [--includeph]  [--includeCustomTelemetry]`
	`racadm get -f -t xml -u -p -l <CIFS share> [--clone | --replace ] [--includeph] [--includeCustomTelemetry]`

Input	• `<FQDD Alias>`
	  ○ Examples for FQDDs
	  ▪ `System.Power.Supply`
	  ▪ `System.Location`
	  ▪ `LifecycleController.LCAttributes`
	  ▪ `System.LCD`
	  ▪ `iDRAC.Serial`
	For the list of supported groups and objects under the get command, see Database objects with get and set commands.
	• `<group>`—Specifies the group containing the object that must be read.
	• `<object>`—Specifies the object name of the value that must be read.
	• `<index>`—Specifies where FQDD Aliases or Groups must be indexed.
	• `-f <filename>`—This option enables you to export multiple object values to a file. This option is not supported in the Firmware RACADM interface.
	• `-u`—Specifies user name of the remote CIFS share to which the file must be exported.
	• `-p`—Specifies password for the remote CIFS share to which the file must be exported.
	• `-l`—Specifies network share location to which the file is exported.
	• `-port`—Specifies the port number.
	NOTE: This is an optional parameter. If this option is not specified, the default port number is used.

Table 1. get command parameters and options (continued)

get	

	• `-t`—Specifies the file type to be exported. The valid values are:
	  ○ `JSON`—It exports the SCP JSON file to a network share file.
	  ○ `xml`—It exports the SCP xml format file, either to a local or network share file.
	• `--clone`—Gets the configuration `.xml` files without system-related details such as service tag. The XML file that is received does not have any virtual disk creation option.
	• `--replace`—Gets the configuration `.xml` files with the system-related details such as service tag.
	• `-c`—Specifies the FQDD or list of FQDDs separated by ',' of the components for which the configurations should be exported. If this option is not specified, the configuration that is related to all the components are exported.
	• `--includeph`—Specifies that the output of the passwords in the exported configuration XML file are in the hashed format.
	NOTE: if --includeph is not used, the output of the passwords is in the .xml file in clear text.
	• `--customdefaults`—Exports custom default configuration to the file. Supports only with XML file type and local share.
	• `--includeCustomTelemetry`—Includes Telemetry Custom Metric Report Definitions (MRDs) in the configuration XML file.
	NOTE:
	• For `--clone` and `--replace` options, only `.xml` file template is received. These options `--clone` and `--replace` cannot be used in the same command.
	• `--customdefaults` and `--includeCustomTelemetry` cannot be used in the same command.
	This command does not support proxy parameters. To perform the operation with http and https, the proxy parameters have to be configured in the lifecyclecontroller.lcattributes. Once these proxy parameters are configured, they become the part of the default configuration. They have to be removed to ignore the proxy parameters.
	This command does not support setting the proxy parameters if the share location (-l) is HTTP/HTTPS. To perform the operation with HTTP or HTTPS through a proxy, the proxy parameters must be first configured using the lifecyclecontroller.lcattributes. Once these proxy parameters are configured, they become the part of the default configuration; the proxy attributes should be cleared to end use of the HTTP/HTTPS proxy. The valid lifecyclecontroller.lcattributes HTTP/HTTPS proxy parameters are:
	• `UserProxyUserName`
	• `UserProxyPassword`
	• `UserProxyServer`
	• `UserProxyPort`
	• `UserProxyType`
	To view the list of proxy attributes, use `racadm get lifecycleController.lcAttributes`.

Examples	• Get system LCD information.
	`racadm get system.lcdLCDUserString`
	• Display an entire group, in this case the topology configuration.
	`racadm get system.location`
	• Display a single object from a particular group.
	`racadm get system.location.rack.name`
	• Export the xml configuration to a CIFS share.
	`racadm get -f file -t xml -u myuser -p xxx -l //192.168.0.130/share`
	• Export the xml configuration to an NFS share.
	`racadm get -f file -t xml -l 192.168.0.130:/myshare`

Table 1. get command parameters and options (continued)

get	

	• Export a “cloned” xml configuration to a CIFS share
	`racadm get -f xyz_temp_clone -t xml -u Administrator -p xxx -l // 192.168.0.130/xyz --clone`
	• Export a “replace” xml configuration to a CIFS share
	`racadm get -f xyz_temp_replace -t xml -u Administrator -p xxx -l // 192.168.0.130/xyz --replace`
	• Export the xml configuration of the iDRAC component to FTP share.
	`racadm get -f file -t xml -u username -p password -l ftp:// 192.168.0.130/`
	• Export the JSON configuration of the iDRAC component to FTP share.
	`racadm get -f file -t json -u username -p password -l ftp:// 192.168.0.130/`
	• Export the xml configuration of the iDRAC component to TFTP share.
	`racadm get -f file -t xml -l tftp://192.168.0.130/`
	• Export the JSON configuration of the iDRAC component to TFTP share.
	`racadm get -f file -t json -l ftp://192.168.0.130/`
	• Export the xml configuration of the iDRAC component to a CIFS share.
	`racadm get -f file -t xml -u myuser -p xxx -l //192.168.0.130/share -c iDRAC.Embedded.1`
	• Export the xml configuration of the iDRAC component to NFS share.
	`racadm get -f file -t xml -l 192.168.0.130:/myshare`
	• Export the xml configuration of the iDRAC component to HTTP share.
	`racadm get -f file -t xml -u httpuser -p httppwd -l http://test.com/ myshare -port 8080`
	• Export the xml configuration of the iDRAC component to HTTPS share.
	`racadm get -f file -t xml -u httpuser -p httppwd -l https://test.com/ myshare -port 8080`
	• Export the JSON configuration of the iDRAC component to HTTP share.
	`racadm get -f file -t json -u httpuser -p httppwd -l http://test.com/ myshare -port 8080`
	• Export the JSON configuration of the iDRAC component to HTTPS share.
	`racadm get -f file -t json -u httpuser -p httppwd -l https://test.com/ myshare -port 8080`
	• Export the custom default xml configuration to a local share.
	`racadm get -f file -t xml --customdefaults`
	• Include Telemetry Custom Metric Report Definitions in the configuration .xml file.
	`racadm get -f <filename> -t xml -l <NFS or CIFS share> -u <username> -p <password> --includeCustomTelemetry`

Table 1. get command parameters and options (continued)

get	

	• Include the password hash in the configuration `.xml` file.
	`racadm get -f<filename> -t xml -l<NFS or CIFS share> -u<username> -p<password> -t xml --includeph`
	• Configure proxy parameters.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername admin1`
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername`
	• View the list of proxy attributes.
	`racadm get lifecycleController.lcAttributes`
	• To display InfiniBand related groups.
	`racadm get InfiniBand`

set

Table 2. set command parameters and options

set	
Description	Modifies the value of configuration objects on a component. The `Set` sub-command has two forms: • The modification of a single object to a new value specified in the command line. • The modification of multiple objects to new values using a configuration file. It supports multi-object value import from the below configuration file format: ○ Server Configuration Profile (SCP) XML and JSON format—XML and JSON format files can be imported from a local file, from an NFS, CIFS, HTTP, HTTPS, FTP and TFTP network share. **NOTE:** You need admin user privilege to perform import and export SCP operations. Depending on the type of configuration object being modified, the new values could be applied immediately (in "real-time") or require staging and a reboot of the system to apply the new values. The following components support either real-time or staged application of new values: ○ iDRAC with Lifecycle Controller ○ PowerEdge RAID Controller (PERC) The following components require staging and system reboot for application of new values: • BIOS • Other PowerEdge RAID controllers—For software RAID configuration • Networking devices—Ethernet and Fibre Channel **NOTE:** • To modify the value of staged objects such as BIOS or NIC, commit and reboot job creation must be used to apply the pending values. When single object `Set`operations are used to stage value modification, use the jobqueue command to schedule a job to reboot the server and apply the new values. For staged multi-object `Set` operations using xml configuration files, a job will automatically be created by the `Set` command; use the –b, -w, and -s options to specify how the staged reboot will be performed. For more information, see jobqueue. • For more information on the `set` subcommand, run the RACADM command `racadm help set`.
Synopsis	Single-object Set • `racadm set <FQDD Alias>.<group> <value>`

Table 2. set command parameters and options (continued)

set	
	• `racadm set <FQDD Alias>.<group>.<object> <value>` • `racadm set <FQDD Alias>.<group>.[<index>].<object> <value>` • `racadm set <FQDD Alias>.<index>.<group>.<index>.<object> <value>`

	Multi-object Set
	• `racadm set -f <filename> -t xml -l <NFS share> [--preview] [--continue]`
	• `racadm set -f <filename> -t xml -l <NFS share> -c <FQDD>[,<FQDD>*]`
	• `racadm set -f <filename> -t xml -u <username> -p <password> -l <CIFS share> [--preview] [--continue]`
	• `racadm set -f <filename> -t xml -u <username> -p <password> -l <CIFS share> -c <FQDD>[,<FQDD>*]`
	• `racadm set -f <filename> -t <file_type> -u <user> -p <pass> -l <location> \ [-s <state>] [-c <component_FQDD>] [--preview] [--customdefaults]`
	• `racadm set --savecustomdefaults`
	• Configure a RAC from an XML configuration file located on a remote NFS share
	`racadm set -f <filename> -t xml -l <NFS> 192.168.0.130:/myshare`
	• Configure a RAC from an XML configuration file located on a remote HTTP share.
	`racadm set -f <filename> -t xml -u <httpuser> -p <httppwd> -l <HTTP> http://test.com/myshare -port <port number>`
	• Configure a RAC from an XML configuration file located on a remote HTTPS share.
	`racadm set -f <filename> -t xml -u <httpsuser> -p <httpspwd> -l <HTTPS> https://test.com/myshare -port <port number>`
	• Configure a RAC from an XML configuration file located on a remote FTP share
	`racadm set -f <filename> -t xml -u <username> -p <password> -l <FTP share> -c <FQDD>`
	• Configure a RAC from an XML configuration file located on a remote TFTP share.
	`racadm set -f <filename> -t xml -l <TFTP share> -c <FQDD>`
	• To modify the value of InfiniBand attribute
	`racadm set <InfiniBand Attribute> <value>`

Input	• `<FQDD Alias>` Examples for FQDDs: ○ System.Power ○ System.Power.Supply ○ System.Location ○ LifecycleController.LCAttributes ○ System.LCD ○ iDRAC.Serial • `<group>` — Specifies the group containing the object that must be written. • `<object>` — Specifies the object name of the value that must be written. • `<index>` — This option is specified where FQDD Aliases or Groups must be indexed.

Table 2. set command parameters and options (continued)

set	

	• `-f <filename>` — Enables set to configure the device from a specified file. This option is not supported in the Firmware RACADM interface.
	• `-u` — Specifies user name of the CIFS remote share from which the file must be imported
	• `-p` — Specifies password for the remote CIFS share from which the file must be imported.
	• `-l` — Specifies network share location from where the file must be imported.
	• `-port` — Specifies the port number.
	
	NOTE: This is an optional parameter. If this option is not specified, the default port number is used.
	
	• `-t` — Specifies the file type to be imported. The valid values are:
	  ○ `xml`—Imports the Server Configuration Profile in XML format either from a local or network share file.
	  ○ `JSON`—Specifies a JSON file.
	Staging and reboot control options. The following options control when and how system reboots are performed when using the –f option. As noted above, some `FQDD`s require a system reboot to apply the new values; other `FQDD`s optionally support immediate application of new values. If the imported file contains ONLY immediate application-capable `FQDD`s such as iDRAC, do NOT use the –b option and the Set command will schedule a real-time job to immediately apply the new values.
	NOTE: The –b, -w, –s, and --preview options are applicable only with –f option.
	
	• `-b`—Specifies the host shutdown type to run scheduled import job. The parameters are `Graceful`, `Forced`, and `NoReboot` for graceful shutdown, forced shutdown, and no reboot respectively. If -b is not specified, graceful shutdown is taken as the default except as noted above for files containing new values for immediate application-capable <FQDD>s.
	
	NOTE: If the operating system is in use, then the `graceful` shutdown option may time out within 300 seconds. If this operation is unsuccessful, then retry with the `force` option.
	
	• `-w`—Maximum time to wait for the graceful shutdown to occur. The value must be entered in seconds. Minimum accepted value is 300 seconds and the maximum accepted value is 3600 seconds. The default value is 1800 seconds.
	• `-s`—Power state of the host when the import operation completes. The parameters are "On" for powered ON and "Off" for powered OFF. If this parameter is not specified, power ON is taken as default.
	• `--preview`—Validates the configuration `.xml` file and view the status. The `--preview` option provides the **Job ID** to verify the status of the file preview operation. The **Job ID** can be tracked by running the `racadm jobqueue view -I <JID>` command.
	
	NOTE:
	  ○ The `--preview` option does not restart the system.
	  ○ The`-b`,`-w` options cannot be included with the `--preview` option.
	  ○ A scheduled job or pending configuration should not be running while using the `--preview` option.
	
	• `-c`—Specifies the FQDD or list of FQDDs separated by ',' of the components for which the configurations should be imported. If this option is not specified, configuration related to all the components are imported.
	NOTE:
	• To use the `-c` or `--preview` option, the minimum Lifecycle Controller version required is 1.2.
	• On certain devices, importing the server configuration profile requires two imports to apply the configuration to all the devices. The first import of the profile enables hidden devices which are then configured with a second import. The devices that require two imports are as follows:
	  ○ BIOS and PCIe device: enabling PCIe slots in the system that are disabled and configuring the PCIe device
	  ○ BIOS: enabling processor trusted execution (TXT) when server has Trusted Platform Module (TPM) 2.0 installed

Table 2. set command parameters and options (continued)

set	
	○ BIOS: if SCP contains only a BIOS section that includes switching boot mode to UEFI and configuration of UEFI PXE network settings ○ BIOS: if SCP contains only a BIOS section that includes switching boot mode to legacy BIOS or UEFI along with changes to the boot order sequence using changes to BootSeq, HddSeq, or UefiBootSeq attributes. ○ BIOS: changing TPM 2.0 cryptographic support from the default of SHA-1 **NOTE:** Boot mode and boot order sequence can be changed with a single SCP import if the SetBootOrderFqddN and SetLegacyHddOrderFqddN attributes are used. ● `--savecustomdefaults`—Saves current configuration as custom default configuration. ● `--customdefaults`—Performs the upload of custom default configuration file. This option should not be combined with `--preview`. Supports XML file type only. This command does not support setting the proxy parameters if the share location (-l) is HTTP/HTTPS. For more information, see Proxy parameters section.

Example	Single-object Set of real-time objects
	● Configure LCD String.
	`racadm set system.lcd.LCDUserString test`
	● ○ Configure iDRAC name.
	`racadm set iDRAC.Info.Name idrac-server100`
	Single-object Set of staged objects
	● Configure several BIOS settings, create a job to initiate application of new values, reboot the system, then wait for the job to complete.
	`racadm set BIOS.SysProfileSettings.ProcTurboMode Disabled`
	`racadm set BIOS.ProcSettings.ProcVirtualization Enabled`
	`racadm set BIOS.ProcSettings.ControlledTurbo Enabled`
	`racadm jobqueue create BIOS.Setup.1-1 -r Graceful`
	○ Note of the Job ID output by the jobqueue command
	○ After reboot, wait for the job to complete by checking the job status
	`racadm jobqueue view -i <Job ID>`
	Multi-object Set of real-time objects
	● Configure the iDRAC using a local Server Configuration Profile XML file containing only iDRAC settings.
	`racadm set -f myidrac.xml -t xml`
	● Configure the iDRAC using a Server Configuration Profile XML file stored on an NFS share containing only iDRAC settings.
	`racadm set -f myidrac.xml -t xml -l 192.168.0.130:/myshare`
	● Import a Server Configuration Profile from a CIFS share, using only the iDRAC component.
	`racadm set -f file -t xml -u myuser -p mypassword -l //192.168.0/share -c iDRAC.Embedded.1`
	Multi-object Set of staged objects
	● Configure a systems using a local Server Configuration Profile XML file containing a mix of real-time and staged objects; reboot the server gracefully with a wait time of ten minutes, leaving the server powered on after the reboot.
	`racadm set -f myfile.xml -t xml -b "graceful" -w 600 -s "on"`
	○ Make note of the Job ID output by the Set command.
	○ After reboot, wait for the job to complete by checking the job status.
	`racadm jobqueue view -i <Job ID>`

Table 2. set command parameters and options (continued)

set	

	• Configure a systems using a local Server Configuration Profile XML file containing a mix of real-time and staged objects; postpone reboot until other operations have been completed.
	`racadm set -f myfile.xml -t xml -b NoReboot`
	○ Make note of the Job ID output by the Set command; because of the NoReboot option, the job will be pending until the server is rebooted
	○ Complete other operations, then perform a reboot
	○ After reboot, wait for the job to complete by checking the job status
	`racadm jobqueue view –i <Job ID>`
	• Verify the Server Configuration Profile XML file content located in a remote CIFS share.
	`racadm set -f temp_Configuration_file -t xml -u Administrator -p Password -l //192.168.0.130/xyz –preview`
	• Configure a RAC from an XML configuration file located on a remote FTP share.
	`racadm set -f myfile.xml -t xml -u username -p password -l ftp://192.168.0.130/`
	• Configure a RAC from a JSON configuration file located on a remote FTP share.
	`racadm set -f myfile.xml -t json -u httpsuser -p httpspwd -l ftp://192.168.0.130/`
	• Configure a RAC from an XML configuration file located on a remote TFTP share.
	`racadm set -f myfile.xml -t xml -l tftp://192.168.0.130/`
	• Configure a RAC from a JSON configuration file located on a remote TFTP share.
	`racadm set -f myfile.xml -t json -l tftp://192.168.0.130/`
	• Configure a RAC from an XML configuration file located on a remote HTTP share.
	`racadm set -f myfile.xml -t xml -u httpuser -p httppwd -l http://test.com/myshare -port 8080`
	• Configure a RAC from an XML configuration file located on a remote HTTPS share.
	`racadm set -f myfile.xml -t xml -u httpsuser -p httpspwd -l https://test.com/myshare -port 8080`
	• Configure a RAC from a JSON configuration file located on a remote HTTPS share.
	`racadm set -f myfile.xml -t json -u httpsuser -p httpspwd -l https://test.com/myshare -port 8080`
	• Configure the proxy parameter.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername admin1`
	• Remove the proxy parameter.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername`
	• Upload the custom default XML configuration file located on NFS share to RAC.
	`racadm set -f myfile.xml -t xml -l share_ip:/PATH --customdefaults`
	• Save current configuration as custom default configuration.
	`racadm set --savecustomdefaults`

3

RACADM subcommand parameters and options

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

Topics:

- infinibandstatistics
- inlettemphistory
- jobqueue
- krbkeytabupload
- lclog
- license
- netstat
- networktransceiverstatistics
- nicstatistics
- pcieslotview
- ping
- ping6
- plugin
- racadm proxy
- racdump
- racreset
- racresetcfg
- recover
- remoteimage
- remoteimage2
- rollback
- sekm
- serialcapture
- sensorsettings
- serveraction
- setled
- setniccfg
- spdm
- sshpkauth
- sslcertdelete
- sslcertdownload
- sslcertupload
- sslcertview
- sslcsrgen
- sslkeyupload
- sslresetcfg
- storage
- supportassist
- swinventory
- switchconnection
- systemerase
- systemperfstatistics
- testalert
- testemail
- testrsyslogconnection
- testtrap
- traceroute
- tracepath6
- update
- usercertupload
- usercertview
- vmdisconnect
- witnessnodepoweraction

Guidelines to quote strings containing special characters when using RACADM commands

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

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

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

There are different escaping rules for double quotation marks.

For using double quotation marks:

The following characters must be escaped by preceding with a backward slash:

- $ (dollar sign)
- " (double quotation marks)
- ` (back quotation marks)
- ' (single quotation marks)

help and help subcommand

Table 3. help and help subcommand

Help and help subcommand	
Description	Lists all the subcommands available for use with RACADM and provides a short description about each subcommand. You may also type a subcommand, group, object, or Fully Qualified Descriptor (FQDD) name after `help`.
Synopsis	• `racadm help` • `racadm help <subcommand>`
Input	• `<subcommand>` — specifies the subcommand for which you need the help information. • `<device name>` — specifies the device name such as iDRAC, BIOS, NIC, LifecycleController, FC, system, or Storage. • `<group>` — specifies the group name that is supported by the corresponding device. • `<attribute>` — specifies the attribute for the entered group.
Output	• The `help` command displays a complete list of subcommands. • The `racadm help <subcommand>` command displays information for the specified subcommand only. • The `racadm help <device name>.<Group>` command displays information for the specified group. • The `racadm help <device name>.<Group>.<attribute>` command displays information for the specified attribute. **NOTE:** `help` for NIC/FC/Infiniband vendor implementation-specific attributes are fetched from the respective vendors and may not be complete for few attributes.

Table 3. help and help subcommand (continued)

Help and help subcommand	
Example	To display the help information about InfiniBand FQDD: `racadm help <InfiniBand FQDD>`

arp

Table 4. arp command parameters and options

arp	
Description	• Displays the contents of the Address Resolution Protocol (ARP) table. ARP table entries cannot be added or deleted. • To use this command, you must have Debug privilege.
Synopsis	`racadm arp`
Input	N/A
Example	`racadm arp`

Output

Table 5. Details of output

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

ackdriveremoval

Table 6. ackdriveremoval command parameters and options

ackdriveremoval	
Description	The plug-in subcommand acknowledges drive removal and clears the amber state of the chassis LED to healthy state.
Synopsis	• racadm ackdriveremoval -d <drive_id> -b <bay_id> • racadm ackdriveremoval --all
Input	• --all—Acknowledge all the drive removal. • -d—Drive ID to acknowledge drive removal. • -b—Bay ID to acknowledge drive removal.

Example	To acknowledge all the drive removal:
	`racadm ackdriveremoval --all`
	To acknowledge the drive removal for a given drive and bay id:
	`racadm ackdriveremoval -d 2 -b 0`

autoupdatescheduler

Table 7. autoupdatescheduler command parameters and options

autoupdatescheduler	
Description	You can automatically update the firmware of the devices on the server. To run this subcommand, you must have the Server Control privilege. **NOTE:** • The `autoupdatescheduler` subcommand can be enabled or disabled. • Lifecycle Controller and CSIOR may not be enabled to run this subcommand. • The autoupdatescheduler can be enabled or disabled. • The minimum Lifecycle Controller version required is Lifecycle Controller 1.3. • When a job is already scheduled and the `clear` command is run, the scheduling parameters are cleared. • If the network share is not accessible or the catalog file is missing when the job is scheduled, then the job is unsuccessful.

Synopsis	• To create the AutoUpdateScheduler, run the command.
	`racadm autoupdatescheduler create -u <user> -p <password> -l <location> -f <filename> -time <time> -dom <DayOfMonth> -wom <WeekOfMonth> -dow <DayofWeek> -rp <repeat> -a <applyreboot> -ph <proxyHost> -pu <proxyUser> -pp <proxyPassword> -po <proxyPort> -pt <proxyType>`
	• To view the AutoUpdateScheduler parameter, run the command.
	`racadm autoupdatescheduler view`
	• To clear and display AutoUpdateScheduler parameter, run the command.
	`racadm autoupdatescheduler clear`
	NOTE: After the parameters are cleared, the AutoUpdateScheduler is disabled. To schedule the update again, enable the AutoUpdateScheduler.

Input	Valid options: • `-u` — Specifies the username of the remote share that stores the catalog file. **NOTE:** For CIFS, enter the domain name as domain or username. • `-p` — Specifies the password of the remote share that stores the catalog file. • `-l` — Specifies the network share (NFS, CIFS, FTP, TFTP, HTTP, or HTTPS) location of the catalog file. IPv4 and IPv6 addresses are supported. • `-f` — Specifies the catalog location and the filename. If the filename is not specified, then the default file used is `catalog.xml`. **NOTE:** If the file is in a subfolder within the share location, then enter the network share location in the `-l` option and enter the subfolder location and the filename in the `-f` option. • `-ph` — Specifies the FTP/HTTP proxy hostname. • `-pu` — Specifies the FTP/HTTP proxy username. • `-pp` — Specifies the FTP/HTTP proxy password. • `-po` — Specifies the FTP/HTTP proxy port. • `-pt` — Specifies the FTP/HTTP proxy type. • `-time` — Specifies the time to schedule an autoupdate in the HH:MM format. This option must be specified. • `-dom` — Specifies the day of month to schedule an autoupdate. Valid values are 1–28, L (Last day) or '*' (default—any day).

Table 7. autoupdatescheduler command parameters and options (continued)

autoupdatescheduler	

	• -wom — Specifies the week of month to schedule an autoupdate. Valid values are 1–4, L (Last week) or '*' (default—any week).
	• -dow — Specifies the day of week to schedule an autoupdate. Valid values are sun, mon, tue, wed, thu, fri, sat, or '*' (default—any day).
	NOTE: The -dom, -wom, or -dow option must be included in the command for the autoupdate schedule. The * value for the options must be included within ' ' (single quotation mark).
	  • If the -dom option is specified, then the -wom and -dow options are not required.
	  • If the-wom option is specified, then the-dow is required and -dom is not required.
	  • If the-dom option is non-'*', then the schedule repeats by month.
	  • If the-wom option is non-'*', then the schedule repeats by month.
	  • If the-dom and -wom options are '*' and the -dow option is non-'*', then the schedule repeats by week.
	  • If all the three -dom, -wom and -dow options are '*', then the schedule repeats by day.
	• -rp — Specifies the repeat parameter. This parameter must be specified.
	  ○ If the-dom option is specified, then the valid values for -rp are 1–12.
	  ○ If the-wom option is specified, then the valid values for -rp are 1–52.
	  ○ If the-dow option is specified, then the valid values for -rp are 1–366.
	• -a — Applies reboot (1—Yes, 0—No). This option must be specified.

Example	Usage examples:
	• To configure autoupdate feature settings.
	  ○ For CIFS, run the command:
	`racadm autoupdatescheduler create -u domain/admin -p xxx -l // 192.168.0.130/share -f cat.xml -time 14:30 -wom 1 -dow sun -rp 1 -a 1`
	  ○ For NFS, run the command:
	`racadm autoupdatescheduler create -u nfsadmin -p nfspwd -l 192.168.0.130/share -f cat.xml -time 14:30 -dom 1 -rp 5 -a 1`
	  ○ For FTP, run the command:
	`racadm autoupdatescheduler create -u ftpuser -p ftppwd -l` **`ftp.test.com`** `-f cat.xml.gz -ph 192.168.0.130 -pu padmin -pp ppwd -po 8080 -pt http -time 14:30 -dom 1 -rp 5 -a 1`
	  ○ For HTTP, run the command:
	`racadm autoupdatescheduler create -u httpuser -p httppwd -l http://test.com -f cat.xml -ph 192.168.0.130 -pu padmin -pp ppwd -po 8080 -pt http -time 14:30 -dom 1 -rp 5 -a 1`
	  ○ For TFTP, run the command:
	`racadm autoupdatescheduler create -l tftp://192.168.0.130 -f cat.xml.gz -time 14:30 -dom 1 -rp 5 -a 1`
	  ○ To view AutoUpdateScheduler parameter:
	`racadm autoupdatescheduler view`
	`hostname = 192.168.0.120`
	`sharename = nfs`
	`sharetype = nfs`
	`catalogname = Catlog.xml`
	`time = 14:30dayofmonth =1`
	`repeat = 5`

Table 7. autoupdatescheduler command parameters and options (continued)

autoupdatescheduler	
	applyreboot = 1 idracuser = racuser ○ To clear and display AutoUpdateScheduler parameter: racadm autoupdatescheduler clear RAC1047: Successfully cleared the Automatic Update (autoupdate) feature settings

bezelfilter

Table 8. bezelfilter command parameters and options

bezelfilter	
Description	Using this command, you can perform bezel filter operations.
Synopsis	To perform a bezel filter life reset operation: racadm bezelfilter resetfilterlife
Example	bezelfilter resetfilterlife Bezel Filter Life has reset successfully.

bioscert

Table 9. bioscert command parameters and options

bioscert	
Description	Allows you to ● View the installed Secure Boot Certificates. To view, you must have the Login privilege. ● Export the Secure Boot Certificate to a remote share or local system. To export, you must have the Login privilege. ● Import the Secure Boot Certificate from a remote share or local system. To import, you must have login and system control privilege. ● Delete the installed Secure Boot Certificate. To delete, you must have login and system control privilege. ● Restore the installed Secure Boot Certificate Sections. To restore, you must have login and system control privilege.
Synopsis	● To view the installed Secure Boot Certificates racadm bioscert view -all ● To export the Secure Boot Certificate to a remote share or local system. racadm bioscert view -t <keyType> -k <KeySubType> -v <HashValue or ThumbPrintValue> ● racadm bioscert export -t <keyType> -k <KeySubType> -v <HashValue or ThumbPrintValue> -f <filename> -l <CIFS/NFS/HTTP/HTTPS share> -u <username> -p <password> ● racadm bioscert import -t <keyType> -k <KeySubType> -f <filename> -l <CIFS/NFS/HTTP/HTTPS share> -u <username> -p <password>

Table 9. bioscert command parameters and options (continued)

bioscert	
	• `racadm bioscert delete –all` • `racadm bioscert delete -t <keyType> -k <KeySubType> -v <HashValue or ThumbPrintValue>` • `racadm bioscert restore –all` • `racadm bioscert restore -t <keyType>`

Input	• `-t`— Specifies the key type of the Secure Boot Certificate to be exported.
	  ○ 0—Specifies the PK (Platform Key)
	  ○ 1—Specifies the KEK (Key Exchange Key)
	  ○ 2—Specifies the DB (Signature Database)
	  ○ 3—Specifies the DBX (Forbidden signatures Database)
	• `-k` — Specifies the Certificate type or the Hash type of the Secure Boot Certificate file to be exported.
	  ○ 0—Specifies the Certificate type
	  ○ 1—Specifies the Hash type (SHA - 256)
	  ○ 2—Specifies the Hash type (SHA - 384)
	  ○ 3—Specifies the Hash type (SHA - 512)
	• `-v`— Specifies the Thumbprint value or the Hash value of the Secure Boot Certificate file to be exported.
	• `-f`—Specifies the file name of the exported Secure Boot Certificate.
	• `-l`—Specifies the network location to where the Secure Boot Certificate file must be exported.
	• `-u`—Specifies the username for the remote share to where the Secure Boot Certificate file must be exported.
	• `-p`—Specifies the password for the remote share to where the Secure Boot Certificate file must be exported.

Example	• To view the installed Secure boot Certificates.
	`racadm bioscert view –all`
	• To view an installed PK Certificate
	`racadm bioscert view -t 0 -k 0 -v AB:A8:F8:BD:17:1E:35:12:90:67:CD:0E:69:66:79:9B:BE:64:52:0E`
	• To view an installed DBX certificate of HASH type SHA-256.
	`racadm bioscert view -t 3 -k 1 -v 416e3e4a6722a534afba9040b6d6a69cc313f1e48e7959f57bf248d543d00245`
	• Export the KEK certificate to a remote CIFS share.
	`racadm bioscert export -t 1 -k 0 -v AB:A8:F8:BD:17:1E:35:12:90:67:CD:0E:69:66:79:9B:BE:64:52:0E -f kek_cert.der -l //192.168.0.130/share -u admin -p mypass`
	• Export the DBX (Hash Type SHA-256) to a remote NFS share.
	`racadm bioscert export -t 3 -k 1 -v 416e3e4a6722a534afba9040b6d6a69cc313f1e48e7959f57bf248d543d00245 -f kek_cert.der -l 192.168.0.130:/share`
	• Export the KEK certificate to a local share using the local racadm.
	`racadm bioscert export -t 1 -k 0 -v AB:A8:F8:BD:17:1E:35:12:90:67:CD:0E:69:66:79:9B:BE:64:52:0E -f kek_cert.der`

Table 9. bioscert command parameters and options (continued)

bioscert	

	• Export the KEK certificate to a local share using remote racadm.
	`racadm -r 192.168.0.130 -u root -p calvin bioscert export -t 1 -k 0 -v AB:A8:F8:BD:17:1E:35:12:90:67:CD:0E:69:66:79:9B:BE:64:52:0E -f kek_cert.der`
	• Import the KEK certificate from the CIFS share to the embedded iDRAC.
	`racadm bioscert import -t 1 -k 0 -f kek_cert.der -l //192.168.0.130/share -u admin -p mypass`
	• Import KEK (Hash Type SHA-256) from a CIFS share to the embedded iDRAC
	`racadm bioscert import -t 1 -k 1 -f kek_cert.der -l //192.168.0.130/licshare -u admin -p passwd`
	• Import a KEK certificate from a NFS share to the embedded iDRAC.
	`racadm bioscert import -t 1 -k 0 -f kek_cert.der -l 192.168.0.130:/share`
	• Import a KEK certificate from a local share using Local RACADM.
	`racadm bioscert import -t 1 -k 0 -f kek_cert.der`
	• Import a KEK certificate from a local share using remote RACADM.
	`racadm -r 192.168.0.130 -u root -p calvin bioscert import -t 1 -k 0 -f kek_cert.der`
	• To delete an installed KEK Secure Boot Certificate
	`racadm bioscert delete -t 3 -k 0 -v 416e3e4a6722a534afba9040b6d6a69cc313f1e48e7959f57bf248d543d00245`
	• To delete an installed DBX Secure Boot Certificate of HASH type SHA-256.
	`racadm bioscert delete -t 3 -k 1 -v 416e3e4a6722a534afba9040b6d6a69cc313f1e48e7959f57bf248d543d00245`
	• To delete all the installed KEK Secure Boot Certificates
	`racadm bioscert delete --all`
	• To restore the installed KEK Secure Boot Certificates
	`racadm bioscert restore -t 1`
	• To restore all the installed Secure Boot Certificates
	`racadm bioscert restore --all`

biosscan

Table 10. biosscan command parameters and options

biosscan	
Description	Allows iDRAC to scan the BIOS on scheduled intervals or as requested by the user.
Synopsis	To schedule BIOS scanning `racadm biosscan -s <Frequency Type>`

Table 10. biosscan command parameters and options (continued)

biosscan	
	or `racadm biosscan -s <frequency> -t <start-time> -d <start-date>`

Input	• `-s`—Specifies the type of schedule for BIOS scan.
	  ○ 0—Never schedule for BIOS scan and deletes existing schedules
	  ○ 1—Schedule now
	  ○ 2—Schedule daily
	  ○ 3—Schedule weekly
	  ○ 4—Schedule monthly
	  ○ 5—Schedule yearly
	• `-t<HH:00>`—Schedule start time in a 24-hour format. Specifying minute is not supported, therefore the minute value must be set as 00. The default time is set to 23:00 if time is not specified.
	• `-d<YYYY-MM-DD>`—Schedule start date. The default date is set to the current date when the date is not specified.
	NOTE: -t and -d inputs must be specified together and are not applicable for -s 0 and -s 1.
	NOTE: In modular systems, the scheduled start time (minutes) may vary based on the server slot number.

Example	• To perform the BIOS Scan immediately:
	`racadm biosscan -s 1`
	• To perform the BIOS Scan daily:
	`racadm biosscan -s 2`
	• To perform BIOS scan weekly at 2100 Hrs from November 20, 2024:
	`racadm biosscan -s 3 -t 21:00 -d 2024-11-20`
	• To perform BIOS scan weekly from today at default time 23:00:
	`racadm biosscan -s 3`

cd

Table 11. cd command parameters and options

cd	
Description	To change the current working object, use this command.
Synopsis	`racadm>> cd <object>`
Input	`racadm>> cd <object>`
Output	Displays the new prompt.

Example	• Example 1: To navigate to the system device type directory:
	`racadm>>cd system`
	`racadm/system>`

Table 11. cd command parameters and options (continued)

cd	

	• Example 2: To run all the power-related `get` or `set` commands:
	`racadm/system>cd power`
	`racadm/Power>`

NOTE: To go back to the previous directory, use the `cd..` command.

clearasrscreen

Table 12. clearasrscreen command parameters and options

clearasrscreen	
Description	Clears the last crash (ASR) screen that is in memory. For more information, see "Enabling Last Crash Screen" section in Integrated Dell Remote Access Controller User's Guide. **NOTE:** To run this subcommand, you must have the Clear Logs permission.
Synopsis	`racadm clearasrscreen`
Input	None
Output	Clears the last crash screen buffer.
Example	`racadm clearasrscreen`

clearpending

Table 13. clearpending command parameters and options

clearpending	
Description	Deletes the pending values of all the attributes (objects) in the device (NIC, BIOS, FC, and Storage). **NOTE:** If any attribute is not modified or a job is already scheduled for the same device, then the pending state is not cleared or deleted.
Synopsis	`racadm clearpending <FQDD>`
Input	`<FQDD>` — The values are: • BIOS FQDD • NIC FQDD • InfiniBand FQDD • FC FQDD • Storage controller FQDD
Output	A message is displayed indicating that the pending state is cleared or deleted.

Example	• To clear the pending state of NIC device
	`racadm clearpending NIC.Integrated.1-1`
	• To clear the pending state of InfiniBand device
	`racadm clearpending <InfiniBand FQDD>`

closessn

Table 14. closessn command parameters and options

closessn	
Description	Closes a communication session on the device. Use `getssninfo` to view a list of sessions that can be closed using this command. To run this subcommand, you must have the Administrator permission. **NOTE:** This subcommand ends all the sessions other than the current session.
Synopsis	• `racadm closessn –i <session_ID>` • `racadm closessn -a` • `racadm closessn -u <username>`
Input	• `–i <session_ID>` — The session ID of the session to close, which can be retrieved using RACADM `getssninfo` subcommand. Session running this command cannot be closed. • `–a` — Closes all sessions. • `–u <username>` — Closes all sessions for a particular user name.
Output	Successful or error message is displayed.

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

clrsel

Table 15. clrsel command parameters and options

clrsel	
Description	• Removes all the existing records from the System Event Log (SEL). • To use this subcommand, you must have **Clear Logs** permission.
Synopsis	`racadm clrsel`
Example	• `racadm clrsel` The SEL was cleared successfully

cmreset

Table 16. cmreset command parameters and options

cmreset	
Description	This command is used to perform a chassis manager reset operation.

Table 16. cmreset command parameters and options (continued)

cmreset	
Synopsis	**NOTE:** This command is only supported on DCS systems. • `racadm cmreset`
Example	• To perform the chassis manager reset operation. `racadm cmreset`

connect

Table 17. connect command parameters and options

connect	
Description	Allows you to connect to the switch or blade serial console. **NOTE:** This subcommand is only supported on the firmware interface.
Synopsis	• `racadm connect [-b] -m <module>`
Input	• `-b`—binary mode. **NOTE:** If -b is used, CMC must be reset to terminate connect. • `-m`—module, and can be one of the following values: ○ `server-<n>`—where n = 1 to 16 ○ `server-<nx>`—where n = 1 to 8 and x = a to d ○ `switch-n`—where n = 1 to 6 or <a1 | a2 | b1 | b2 | c1 | c2>

Examples	• To connect to I/O Module 1 serial console:
	`racadm connect -m switch-1`
	• To connect to server 1 serial console:
	`racadm connect -m server-1`

coredump

Table 18. coredump command parameters and options

coredump	
Description	Displays the list of RAC coredump files. If available, the coredump information is persistent across iDRAC power cycles and remains available until either of the following conditions occur: The coredump information is deleted using the coredumpdelete subcommand. For more information about clearing the `coredump`, see coredumpdelete section in this CLI Guide. **NOTE:** To use this subcommand, you must have the **Execute Debug** privilege.
Synopsis	`racadm coredump`
Example	• `racadm coredump` `There is no coredump currently available.`

Table 18. coredump command parameters and options (continued)

coredump	

	• `racadm coredump`
	`<size>  <date & time>  <name>`
	`863  Feb  8 05:56  corefile1.gz`
	`31  Feb  8 05:56  corefile2.gz`
	`322  Feb  8 05:56  corefile3.gz`
	NOTE: The output displays the file size in KB.

coredumpdelete

Table 19. coredumpdelete command parameters and options

coredumpdelete	
Description	Deletes any currently available coredump data stored in the RAC. To use this subcommand, you must have **Execute Debug** Command permission. **NOTE:** If a `coredumpdelete` command is issued and a `coredump` is not currently stored in the RAC, the command displays a success message. This behavior is expected. See the `coredump` subcommand for more information about viewing a coredump.
Synopsis	`racadm coredumpdelete [-f <coreFileName>][--all]`
Output	Coredump is deleted.
Input	• `-f <coreFileName>`— Specifies the name of the core file to be deleted. • `--all`— Deletes all core files.

Example	• To delete a specific core file
	`racadm coredumpdelete -f corefile.gz`
	• To delete all core files
	`racadm coredumpdelete --all`

coredumpexport

Table 20. coredumpexport command parameters and options

coredumpexport	
Description	Exports the RAC coredump files.
Synopsis	`racadm coredumpexport -f <filename> -l <NFS or CIFS share> -u <username> -p <password>`
Output	Coredump files exported successfully
Input	• `-u <username>`—Username of the remote share to where the file must be exported. • `-p <password>`—Password for the remote share to where the file must be exported. • `-l <location>` —NFS/CIFS Network share location to where the file must be exported. • `-f <filename>`—Core file to be exported.

Table 20. coredumpexport command parameters and options (continued)

coredumpexport	

Example	• Export a particular coredump file to a remote CIFS share:
	`racadm coredumpexport -f corefile.gz -u admin -p mypass -l // 192.168.0.130/share`
	• Export a particular coredump file to a remote NFS share:
	`racadm coredumpexport -f corefile.gz -u admin -p mypass -l 192.168.0.130/share`

driverpack

Table 21. driverpack command parameters and options

driverpack	
Description	Installs the driver pack for the operating system.

Synopsis	To get information about the available driver packs
	`racadm driverpack getinfo`
	To attach the driver pack that matches the operating system
	`Racadm driverpack attach -i <index> -t <expose duration>`
	To detach the driver pack
	`Racadm driverpack detach`

Input	• `-i`—index of the operating system • `-t`—exposed time duration in seconds. It is an optional parameter and the default value is 64800 seconds.

Output	• `racadm driverpack getinfo`—<OS name>
	• `Racadm driverpack attach`—Job Id details
	• `Racadm driverpack detach`—detach successful
	`racadm driverpack getinfo–<OS name>`
	`Racadm driverpack attach–Job Id details`
	`Racadm driverpack detach–detach successful`

Example	• To attach the driver pack with operating system index and exposed time
	`racadm driverpack attach -i <OS Index> [-t <exposed time>]`
	• To check the job status
	`racadm jobqueue view -i JID_000000000000`
	• To detach the operating system
	`racadm driverpack detach`

NOTE: In the local RACADM interface, if a driver pack is attached, some of the export operation commands may not work as expected. Ensure that the driver pack is detached before using commands like serialcapture export, hwinventory, swinventory, hwinventory export, and inlettemphistory export.

diagnostics

Table 22. diagnostics command parameters and options

diagnostics	
Description	Collects and exports remote diagnostics report from iDRAC. The results of the latest successfully run remote diagnostics are available and retrievable remotely through an NFS, CIFS, HTTP, or HTTPS) share.

Synopsis	To run a remote diagnostic report:
	`racadm diagnostics run -m <mode> -r <reboot type> -s <start time> -e <expiration time>`
	To export a remote diagnostic report:
	`racadm diagnostics export -f <file name> -l <NFS,CIFS,HTTP,or HTTPS share location> -u <username> -p <password>`

Input	• –m <mode>—Specifies the type of diagnostic mode. The types are:
	  ○ Collect and export remote diagnostics report from the iDRAC. The results of the latest successfully executed remote Diagnostics will be available and retrievable remotely through the NFS, CIFS, HTTP, and HTTPS share.
	  ○ 0(Express)—The express mode executes a subset of diagnostic tests.
	  ○ 1(Extended)—The extended mode executes all available diagnostics tests.
	  ○ 2(Both)—Runs express and extended tests serially in sequence.
	• -f <filename>—Specifies the name of the configuration file.
	• -l—Specifies the location of the network share (NFS, CIFS, HTTP, and HTTPS).
	• -u <username>—Specifies the user name of the remote share to import the file.
	• -p <password>—Specifies the password of the remote share to import the file.
	• -r <reboot type>—Specifies the reboot type. The type can be one of the following:
	  ○ pwrcycle—Power cycle
	  ○ Graceful —Graceful reboot without forced shutdown
	  ○ Forced—Graceful reboot with forced shutdown
	• -s <start time>—Specifies the start time for the scheduled job in yyyymmddhhmmss format. The default value TIME_NOW starts the job immediately.
	• -e <expiration time>—Specifies the expiry time for the scheduled job in yyyymmddhhmmss format. The default value TIME_NA does not apply the waiting time.
	NOTE: For the diagnostic report run operation, the time difference between the -s and -e options must be more than five minutes.

Output	Provides the Job ID for the diagnostic operation.

Examples	• To initiate the remote diagnostic operation:
	`racadm diagnostics run -m 1 -r forced -s 20121215101010 -e TIME_NA`
	• To export a remote diagnostics report to CIFS share:
	`racadm diagnostics export -f diagnostics -l //192.168.0.130/cifs -u administrator -p xxx`
	• To export a remote diagnostics report to NFS share:
	`racadm diagnostics export -f diagnostics -l 192.168.0.130/nfs -u administrator -p xxx`

Table 22. diagnostics command parameters and options (continued)

diagnostics	

	• To export a remote diagnostics report to the HTTP share:
	`racadm diagnostics export -f diags.txt -u httpuser -p httppwd -l http://test.com`
	• To export a remote diagnostics report to the HTTPS share:
	`racadm diagnostics export -f diags.txt -u httpsuser -p httpspwd -l https://test.com`
	• To export a remote diagnostics report to a local share:
	`racadm diagnostics export -f diags.txt`

eventfilters

Table 23. eventfilters command parameters and options

eventfilters	
Description	Displays the list of event filter settings. To use this subcommand with the `set` and `test` option, you must have the **Administrator** privilege.

Synopsis	`racadm eventfilters <eventfilters command type>`
	`racadm eventfilters get -c <alert category>`
	`racadm eventfilters set -c <alert category> -a <action> -n <notifications>`
	`racadm eventfilters set -c <alert category> -a <action> -r <recurrence>`
	`racadm eventfilters test -i <Message ID to test>`
	NOTE: The general format of an alert category:
	`idrac.alert.category.[subcategory].[severity]`
	where category is mandatory, but subcategory and severity are optional. A severity cannot precede a subcategory.
	Valid Category values are:
	• `All`
	• `System`
	• `Storage`
	• `Updates`
	• `Audit`
	• `Config`
	• `Worknotes`
	Definitions of the values are:
	• System Health—System Health category represents all the alerts that are related to hardware within the system chassis. Examples include temperature errors, voltage errors, and device errors.
	• Storage Health—Storage Health category represents alerts that are related to the storage subsystem. Examples include, controller errors, physical disk errors, and virtual disk errors.
	• Updates—Update category represents alerts that are generated when firmware/drivers are upgraded or downgraded.

Table 23. eventfilters command parameters and options (continued)

eventfilters	
	NOTE: This does not represent firmware inventory. • Audit—Audit category represents the audit log. Examples include, user login/logout information, password authentication failures, session info, and power states. • Configuration—Configuration category represents alerts that are related to hardware, firmware, and software configuration changes. Examples include, PCIe card added/removed, RAID configuration changed, iDRAC license changed. • Work notes—Work notes represents an entry in the Lifecycle log. You can add a work note to the Lifecycle Log to record comments for your reference. You can enter comments such as scheduled downtime or changes that are made by administrators who work in different shifts for the later reference. **NOTE:** `idrac.all.all` is not a valid sub category. Valid Severity values are: • `Critical` • `Warning` • `Info` Valid examples of alert queries are: • `idrac.alert.all` • `idrac.alert.audit` • `idrac.alert.audit.lic` • `idrac.alert.audit.warning` • `idrac.alert.audit.lic.critical` This command does not support setting the proxy parameters if the share location (-l) is HTTP/HTTPS. For more information, see Proxy parameters section.
Input	• `get`—Displays the list of eventfilter settings • `set`—Configures the actions and notifications for a given eventfilter configuration • `-i`—Message ID for which the simulation is needed • `-c`—Alert category of the specific event filter • `-a`—The action that must be invoked when the event occurs. Valid values are `none`, `powercycle`, `power off`, or `systemreset` • `-n`—The notification is sent when the event occurs. Valid values are `all`, `snmp`, `ipmi`, `redfish-events`, `oslog`, `email`, `remotesyslog`, or `none`. You can append multiple notifications that are separated by a comma. You cannot enter the values `all` or `none` with other notifications. If an incorrect notification is specified along with other valid notifications, the valid and invalid notification set is failed. • `-r`—Event generation interval. This option is applicable only to the temperature statistics subcategory `tmps`. You can use this option as a stand-alone or with `-n` and `-a`. **NOTE:** If both **event generation interval** and **notifications** are configured and there is an error while configuring the notifications, the event generation interval is not set. The valid values are 0–365. 0 disables the event generation.

Example	• Display all available event filter configurations.
	`racadm eventfilters get -c idrac.alert.all`
	• Display eventfilter configurations for a specific category. For example, audit
	`racadm eventfilters get -c idrac.alert.audit`
	• Display eventfilter configurations for a specific subcategory. For example, licensing under the audit category
	`racadm eventfilters get -c idrac.alert.audit.lic`

Table 23. eventfilters command parameters and options (continued)

eventfilters	

	• Display eventfilter configurations for a specific severity. For example, warning under the audit category
	`racadm eventfilters get -c idrac.alert.audit.warning`
	• Display eventfilter configurations for a specific severity and subcategory. For example, a severity of warning in the subcategory licensing under audit category
	`racadm eventfilters get -c idrac.alert.audit.lic.warning`
	• Clear all available alert settings.
	`racadm eventfilters set -c idrac.alert.all -a none -n none`
	• Configure using severity as a parameter. For example, all informational events in the storage category are assigned power off as action, and email and SNMP as notifications.
	`racadm eventfilters set -c idrac.alert.storage.info -a poweroff -n email,snmp`
	• Configure using subcategory as a parameter. For example, all configurations under the licensing subcategory in the audit category are assigned power off as action and all notifications are enabled.
	`racadm eventfilters set -c idrac.alert.audit.lic -a poweroff -n all`
	• Configure using subcategory and severity as parameters. For example, all information events under the licensing subcategory in the audit category are assigned power off as action and all notifications are disabled:
	`racadm eventfilters set -c idrac.alert.audit.lic.info -a poweroff -n none`
	• Configure the event generation interval for temperature statistics.
	`racadm eventfilters set -c idrac.alert.system.tmps.warning -r 10`
	• Configure the event generation interval and notifications for temperature statistics.
	`racadm eventfilters set -c idrac.alert.system.tmps -r 5 -a none -n snmp`
	• Send a test alert for the fan event.
	`racadm eventfilters test -i FAN0001`
	• To configure the proxy parameter.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername admin1`
	• To remove the proxy parameter.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername`
	• To view the list of proxy attributes.
	`racadm get lifecycleController.lcAttributes`

exposeismininstallertohost

Table 24. exposeismininstallertohost command parameters and options

exposeismininstallertohost	
Description	Exposes the ISM installer to host OS
Synopsis	`racadm exposeismininstallertohost`

Table 24. exposeisminstallertohost command parameters and options (continued)

exposeisminstallertohost	
Input	Not Applicable
Example	Not Applicable

fcstatistics

Table 25. fcstatistics command parameters and options

fcstatistics	
Description	Displays a list of FCs (FQDDs), managed server for which statistics is available.
Synopsis	`racadm fcstatistics <FC fqdd>`
Input	`<FC fqdd>` — Specify the FQDD of the target FC device.
Example	`racadm fcstatistics <FC fqdd>`

frontpanelerror

Table 26. command parameters and options

frontpanelerror	
Description	Enables or disables the live-feed of the errors currently being displayed on the LCD screen. For error acknowledge use `hide`, and error assert use `show`.
Synopsis	`racadm frontpanelerror show` `racadm frontpanelerror hide`
Input	• `show` — to view the errors currently being displayed on the LCD screen. • `hide` — to hide the errors currently being displayed on the LCD screen.

Example	• `racadm frontpanelerror show`
	`Front Panel Error—Show Enabled.`
	• `racadm frontpanelerror hide`
	`Front Panel Error—Hide Enabled.`

update/rollback

Table 27. fwupdate parameters and options

fwupdate	
Description	Allows you to update or roll back the firmware version. You can: • Check the firmware update process status. • Update iDRAC firmware from an FTP or TFTP server by providing an IP address and optional path. • Update iDRAC firmware from the local file system using Local and Remote RACADM. • Roll back to the standby firmware. To use this subcommand, you must have Configure iDRAC permission.

Table 27. fwupdate parameters and options (continued)

fwupdate	
	NOTE: This command is only for iDRAC firmware update. For any other firmware update like BIOS or DUPs, use the **Update** subcommand. **NOTE:** If iSM is exposed on the host server, the `Firmware update operation is already in progress` message may be displayed.

Synopsis	`racadm update/rollback -s`
	`racadm update/rollback -g -u -a <TFTP_Server_IP_Address> [-d <path> [--clearcfg]`
	`racadm -r <iDRAC IP_Address> -u <username> -p <password> fwupdate -f <ftpserver ip> <ftpserver username> <ftpserver password> -d <path> where path is the location on the ftp server where firmimgFIT.d9 is stored.`
	`racadm update/rollback -r`
	`racadm update/rollback -p -u [-d <path>]`
	NOTE: When attempting to run the firmware update task, if the firmware image file path length is greater than 256 characters, remote RACADM client displays the error message "`ERROR: Specified path is too long`".

Input	• —u—The update option performs a checksum of the firmware update file and starts the update process. This option may be used along with the —g or —p options. At the end of the update, iDRAC performs a soft reset. • —s—This option returns the status of the update process. • `-a`—The `-a` option specifies TFTP server IP address that is used for firmware image. This option must be used with the `-g` option. • `--clearcfg`—The `-clearcfg` option removes the previous iDRAC configuration after firmware update. • `-g`—The get option instructs the firmware to get the firmware update file from the TFTP server. Specify the `-a -u`, and —d options. In the absence of the —a option, the defaults are read from properties in the group `cfgRemoteHosts`, usingproperties s `cfgRhostsFwUpdateIpAddr` and `cfgRhostsFwUpdatePath`. • `-p`—The `-p`, or put, option is used to update the firmware file from the managed system to iDRAC. The `-u` option must be used with the `-p` option. • `Default`: Designated TFTP default directory on that host for the file if `-g` option is absent. If `-g` is used, it defaults to a directory configured on the TFTP server. **NOTE:** The `-p` option is supported on local and remote RACADM and is not supported with the `serial/ssh` console and on the Linux operating systems. **NOTE:** The `-p` option is applicable for both remote and local RACADM proxy commands. However, this option is not supported for local RACADM running on Linux operating systems. **NOTE:** The filename for firmware update file must be firmimgFIT.d9. • `-r`—The rollback option is used to roll back to the standby firmware.
Output	Displays a message indicating the operation that is being performed.
Example	• Uploads a firmware image from the client and start firmware update: `racadm update/rollback -p -u -d /tmp/images`

Table 27. fwupdate parameters and options (continued)

fwupdate	

	• Upload firmware image from FTP server and start firmware update:
	`racadm update/rollback -f 192.168.0.10 test test -d firmimgFIT.d9`
	• Upload firmware image from TFTP server and start firmware update:
	`racadm update/rollback -g -u -a 192.168.0.100 -d /tmp/images`
	• Query the status of the firmware update process:
	`racadm update/rollback -s`
	• Roll back to the standby firmware:
	`racadm update/rollback -r`
	• Upload firmware image from TFTP server, start firmware update. After the firmware update is complete, delete previous iDRAC configuration:
	`racadm update/rollback -g -u -a 192.168.0.120 -d /tmp/images --clearcfg`
	NOTE: Firmware update from local RACADM (using `-p -u -d` options) is not supportedon then Linux operating system.

The following table describes the firmware update method that is supported for each interface:

Table 28. Information about update/rollback methods

FW Update Method	iDRAC on Blade Servers	iDRAC on Rack and Tower Servers
Local RACADM	Yes	Yes
Local RACADM-TFTP	Yes	Yes
Local RACADM-FTP	Yes	Yes
Remote RACADM	Yes	Yes
Remote RACADM-TFTP	Yes	Yes
Remote RACADM-FTP	Yes	Yes
Firmware RACADM-TFTP	Yes	Yes
Firmware RACADM-FTP	Yes	Yes

getfanboardinfo

Table 29. getfanboardinfo command parameters and options

getfanboardinfo	
Description	Displays information about all the fan controllers.
Synopsis	To view information about a fan controller: `racadm getfanboardinfo`
Example	`<Name>` `Cooling controller 1`

gethostnetworkinterfaces

Table 30. gethostnetworkinterfaces command parameters and options

gethostnetworkinterfaces	
Description	Displays host network interface details. **NOTE:** To run this subcommand, you must have the iDRAC Service Module that is installed on the server operating system.

Synopsis	`racadm gethostnetworkinterfaces`
	
	`racadm gethostnetworkinterfaces <NIC FQDD>`

Examples	• To display the details of all the network interfaces on the server. • To display the details of a particular NIC on the server.

```
racadm gethostnetworkinterfaces

Local Area Connection 12
Description               : iDRAC Virtual NIC USB Device #8
Status                    : Up
Interface Type            : Ethernet
DHCP                      : Enabled
DHCPServerV4              : 169.254.0.1
MAC Address               : 00-25-64-F9-7A-E7
IPv4 Address              : 192.168.0.120
Subnet Mask               : 255.255.255.0
IPv6 Address              : fe80::1cce:a0a7:f30e:54fc
Prefix Length             : 64
IPv6 DNSServer Address  0: fec0:0:0:ffff::1
IPv6 DNSServer Address  1: fec0:0:0:ffff::2
IPv6 DNSServer Address  2: fec0:0:0:ffff::3
```

```
racadm gethostnetworkinterfaces NIC.Integrated.1-1-1

Local Area Connection
Description               : Broadcom NetXtreme Gigabit Ethernet
Status                    : Up
Interface Type            : Ethernet
DHCP                      : Enabled
DHCPServerV4              : 10.94.224.25
MAC Address               : 14-FE-B5-FF-B1-9C
FQDD                      : NIC.Integrated.1-1-1
IPv4 Address              : 192.168.0.120
Subnet Mask               : 255.255.255.128
IPv6 Address              : fe80::7c5f:a114:84d4:17f6
Prefix Length             : 64
IPv4 Gateway Address      : 10.94.225.129
IPv4 DNSServer Address  0: 10.116.2.250
IPv4 DNSServer Address  1: 10.116.2.251
```

getled

Table 31. getled command parameters and options

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

Table 31. getled command parameters and options (continued)

getled	
Output	• LED is blinking • LED is not-blinking

Example	`racadm getled`
	`LED State : Blinking`
	`racadm getled`
	`LED State : Not-Blinking`

getmetrics

Table 32. getmetrics command parameters and options

getmetrics	
Description	• The `racadm getmetrics accelerator` command is used to display the GPU and proaccelerator devices. • The `racadm getmetrics <GPU_FQDD>` command is used to display utilization of GPU devices such as GPU Utilization, Memory Utilization, Graphics clock frequency, and Memory clock frequency.
Synopsis	`racadm getmetrics accelerator` `racadm getmetrics <GPU_FQDD>`
Input	• `<GPU_FQDD>`— FQDD of GPU device

Example	To display the GPU and proaccelerator devices:
	`racadm getmetrics accelerator`
	To display the utilization of the particular GPU device:
	`racadm getmetrics Video.Slot.1-1`

getniccfg

Table 33. getniccfg command parameters and options

getniccfg	
Description	Displays the current and static NIC settings for iDRAC.
Synopsis	`racadm getniccfg`

Output	The `getniccfg` subcommand displays an appropriate error message if the operation is not successful. Otherwise, the output is displayed in the following format: The following provides the details of IPV4 settings:
	`IPv4 settings:`
	`NIC Enabled =1`
	`IPv4 Enabled =1`
	`DHCP Enabled =0`
	`IP Address =192.168.0.120`
	`Subnet Mask =255.255.255.0`
	`Gateway =10.94.227.1`
	`IPv6 settings:`

Table 33. getniccfg command parameters and options (continued)

getniccfg	
	IPv6 Enabled =Enabled DHCP6 Enabled =Enabled IP Address 1 =:: Gateway =:: Link Local Address =:: IP Address 2 =:: IP Address 3 =:: IP Address 4 =:: IP Address 5 =:: IP Address 6 =:: IP Address 7 =:: IP Address 8 =:: IP Address 9 =:: IP Address 10 =:: IP Address 11 =:: IP Address 12 =:: IP Address 13 =:: IP Address 14 =:: IP Address 15 =:: LOM Status: NIC Selection =dedicated Link Detected =Yes Speed =1Gb/s Duplex Mode =Full Duplex Active NIC =Dedicated Static IPv4 settings: Static IP Address =192.168.0.120 Static Subnet Mask =255.255.255.0 Static Gateway =10.94.227.1 Static IPv6 settings: Static IP Address 1 =:: Static Prefix Length =64 Static Gateway =:: **NOTE:** IPv6 information is displayed only if IPv6 is enabled in iDRAC. **NOTE:** IPv6 Address 1 field indicates static IP and IPv6 Address 2 field indicates dynamic IP. **NOTE:** LOM Status is displayed only for iDRAC on Rack and Tower servers and is not displayed for iDRAC Enterprise on Blade servers.
Example	• Display iDRAC network settings in server slot 1 `racadm getniccfg`

getraclog

Table 34. getraclog command parameters and options

getraclog	
Description	The `getraclog` command displays RAC log entries.
Synopsis	• `racadm getraclog [-i]` • `racadm getraclog [-s <start>] [-c <count>]` `racadm getraclog [-c <count>] [-s <start-record>]`

Table 34. getraclog command parameters and options (continued)

getraclog	
	NOTE: If options are not provided, the entire log is displayed.
Input	• `-c` — Specifies the number of records to display. **NOTE:** On Local RACADM, the number of logs are restricted to 100 by default. • `-s` — Specifies the starting record used for the display. **NOTE:** When Enhanced Chassis Logging and Events feature is enabled, then -i and --more options are not displayed.

Output	`SeqNumber = 7889`
	`Message ID = USR0030`
	`Category = Audit`
	`AgentID = RACLOG`
	`Severity = Information`
	`Timestamp = 2024-11-02 05:01:31`
	`Message = Successfully logged in using root, from 10.107.28.83 and SSH.`
	`Message Arg 1 = root`
	`Message Arg 2 = 10.107.28.83`
	`Message Arg 3 = SSH`
	`FQDD = iDRAC.Embedded.1`

Example	Display the recent 2 records for RAC log
	`racadm getraclog -c 2`
	
	`SeqNumber = 7888`
	`Message ID = USR0032`
	`Category = Audit`
	`AgentID = RACLOG`
	`Severity = Information`
	`Timestamp = 2024-11-02 05:01:07`
	`Message = The session for root from 10.107.28.83 using SSH is logged off.`
	`Message Arg 1 = root`
	`Message Arg 2 = 10.107.28.83`
	`Message Arg 3 = SSH`
	`FQDD = iDRAC.Embedded.1`
	`----------`
	`SeqNumber = 7887`
	`Message ID = USR0030`
	`Category = Audit`
	`AgentID = RACLOG`
	`Severity = Information`
	`Timestamp = 2024-11-02 04:58:37`
	`Message = Successfully logged in using root, from 10.107.28.83 and SSH.`
	`Message Arg 1 = root`
	`Message Arg 2 = 10.107.28.83`
	`Message Arg 3 = SSH`
	`FQDD = iDRAC.Embedded.1`

getractime

Table 35. getractime command parameters and options

getractime	
Description	Displays the current iDRAC time.

Table 35. getractime command parameters and options (continued)

getractime	
Synopsis	• `racadm getractime [-d]`
Input	• `-d`—Displays the time in the format, YYYYMMDDhhmmss.
Output	The current iDRAC time is displayed.

Example	• `racadm getractime`
	`Sat Nov  2 05:05:27 2024`
	• `racadm getractime -d`
	`20241102051319`

getremoteservicesstatus

Table 36. getremoteservicesstatus command parameters and options

getremoteservicesstatus	
Description	Displays the status of a system.
Synopsis	`racadm getremoteservicesstatus`
Input	`racadm getremoteservicesstatus` Possible values for the host system status • Powered Off • In POST • Out of POST • Collecting System Inventory • Automated Task Execution • Lifecycle Controller Unified Server Configurator • Server has halted at F1/F2 error prompt because of a POST error. • Server has halted at F1/F2/F11 prompt because there are no bootable devices available. • Server has entered F2 setup menu. • Server has entered F11 Boot Manager menu. Possible values for the for Lifecycle controller status • Ready • Not Initialized • Reloading data • Disabled • In Recovery • In Use Possible values for the real time status • Ready • Not ready • Not Applicable **NOTE:** If there are no real time capable controllers present on the system, the real-time status is displayed as **Not Applicable**. Possible values for the overall status • Ready • Not ready Possible values for the Telemetry status • Ready • Not ready

Table 36. getremoteservicesstatus command parameters and options (continued)

getremoteservicesstatus	

Example	• `racadm getremoteservicesstatus`
	
	`Server status: In POST`
	`LC status : In Use`
	`RT status : Ready`
	`Status : Not Ready`
	`TS status : Not Ready`
	`SEKM status : Ready`

getsel

Table 37. getsel command parameters and options

getsel	
Description	Displays all System Event Log (SEL) entries in iDRAC.
Synopsis	• `racadm getsel [-i]` • `racadm getsel [-s <start>][-c <count>]` **NOTE:** If no arguments are specified, the entire log is displayed.
Input	• `–i` — Displays the number of entries in the SEL. • `-s` — Displays the starting record number. • `-c` — Specifies the number of records to display. • `--more` — Displays a screen. **NOTE:** Press Q to exit from the screen. • `-A` — Does not display headers or labels. • `-o` — Displays each record on a single line.. • `-E` — Displays RAW SEL data along with the other data. • `-R` — Displays only the RAW SEL data for each record

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

getsensorinfo

Table 38. getsensorinfo command parameters and options

getsensorinfo	
Description	Displays the status for system sensors. **NOTE:** For the Dell PowerEdge FX2 chassis with the FM120x4 server, the power-related information is not displayed.
Synopsis	• `racadm getsensorinfo` • `racadm getsensorinfo -c`

Table 38. getsensorinfo command parameters and options (continued)

getsensorinfo	
Input	-c—Compact output format.

NOTE: The chassis Controller is supported only on PowerEdge FX2 server. **Example**

```
racadm getsensorinfo
Sensor Type : TEMPERATURE
<Sensor Name>            <Status>    <Reading>  <lc> <uc>  <lnc>[R/W]  <unc>[R/W]
[Key = iDRAC.Embedded.1#CPU0Temp]
CPU0 Temp                Ok          37C     3C    104C   NA [N]      NA [N]
[Key = iDRAC.Embedded.1#CPU1Temp]
CPU1 Temp                Ok          35C     3C    104C   NA [N]      NA [N]
[Key = iDRAC.Embedded.1#SystemBoardExhaustTemp]
System Board Exhaust Temp    Ok          28C     3C    75C    8C [N]      70C [N]
[Key = iDRAC.Embedded.1#SystemBoardInletTemp]
System Board Inlet Temp      Ok          23C     -7C   47C    3C [Y]      43C [Y]

Sensor Type : VOLTAGE
<Sensor Name>                <Status>    <Reading>          <lc>        <uc>
System Board FLOP 1 PG       Ok          Good               NA          NA
System Board FLOP 2 PG       Unknown     NA                 NA          NA
CPU0 PG                      Ok          Good               NA          NA
CPU1 PG                      Ok          Good               NA          NA
PICPWR PG                    Ok          Good               NA          NA
System Board PS1 PG FAIL     Ok          Good               NA          NA
System Board PS2 PG FAIL     Ok          Good               NA          NA
System Board Pfault Fail Safe Ok         Good               NA          NA
System Board PG              Ok          Good               NA          NA
CPU0 VCCIN VR                Ok          1.81V              NA          NA
CPU1 VCCD1 VR                Ok          1.12V              NA          NA
CPU0 VCCFA VR                Ok          1.80V              NA          NA
CPU0 VCCINF VR               Ok          0.74V              NA          NA
CPU0 VCCD0 VR                Ok          1.11V              NA          NA
CPU0 VCCD1 VR                Ok          1.12V              NA          NA
CPU1 VCCIN VR                Ok          1.81V              NA          NA
CPU1 VCCFA VR                Ok          1.80V              NA          NA
CPU1 VCCINF VR               Ok          0.74V              NA          NA
CPU1 VCCD0 VR                Ok          1.11V              NA          NA
PS1 Voltage 1                Ok          208.00V            NA          NA
PS2 Voltage 2                Ok          119.75V            NA          NA

Sensor Type : CURRENT
<Sensor Name>            <Status>    <Reading>  <lc> <uc>  <lnc>[R/W]  <unc>[R/W]
[Key = iDRAC.Embedded.1#PS1Current1]
PS1 Current 1                Ok          0.9Amps NA    NA     0Amps [N]      0Amps [N]
[Key = iDRAC.Embedded.1#PS2Current2]
PS2 Current 2                Ok          1.6Amps NA    NA     0Amps [N]      0Amps [N]
[Key = iDRAC.Embedded.1#SystemBoardPwrConsumption]
System Board Pwr Consumption Ok          383WattsNA    2071Watts 0Watts [N]
1882Watts [Y]

Sensor Type : PROCESSOR
<Sensor Name>                <Status>    <State>           <lc>      <uc>
CPU0 Status                  Ok          Presence_Detected NA        NA
CPU1 Status                  Ok          Presence_Detected NA        NA

Sensor Type : BATTERY
<Sensor Name>                <Status>    <Reading>          <lc>        <uc>
System Board CMOS Battery    Ok          Present            NA          NA
PERC1 ROMB Battery           Ok          Present            NA          NA

Sensor Type : PERFORMANCE
<Sensor Name>                <Status>    <State>           <lc>      <uc>
System Board Power Optimized Ok          Not Degraded      NA        NA

Sensor Type : MEMORY
<Sensor Name>                <Status>    <State>
<lc>    <uc>
DIMM A1                      Ok          Presence_Detected                        NA
```

```
     NA
DIMM A10                        N/A         Absent                                      NA
     NA
DIMM A11                        N/A         Absent                                      NA
     NA
DIMM A12                        N/A         Absent                                      NA
     NA
DIMM A13                        N/A         Absent                                      NA
     NA
DIMM A14                        N/A         Absent                                      NA
     NA
DIMM A15                        N/A         Absent                                      NA
     NA
DIMM A16                        N/A         Absent                                      NA
     NA
DIMM A2                         N/A         Absent                                      NA
     NA
DIMM A3                         N/A         Absent                                      NA
     NA
DIMM A4                         N/A         Absent                                      NA
     NA
DIMM A5                         N/A         Absent                                      NA
     NA
DIMM A6                         N/A         Absent                                      NA
     NA
DIMM A7                         N/A         Absent                                      NA
     NA
DIMM A8                         N/A         Absent                                      NA
     NA
DIMM A9                         N/A         Absent                                      NA
     NA
DIMM B1                         Ok          Presence_Detected                           NA
     NA
DIMM B10                        N/A         Absent                                      NA
     NA
DIMM B11                        N/A         Absent                                      NA
     NA
DIMM B12                        N/A         Absent                                      NA
     NA
DIMM B13                        N/A         Absent                                      NA
     NA
DIMM B14                        N/A         Absent                                      NA
     NA
DIMM B15                        N/A         Absent                                      NA
     NA
DIMM B16                        N/A         Absent                                      NA
     NA
DIMM B2                         N/A         Absent                                      NA
     NA
DIMM B3                         N/A         Absent                                      NA
     NA
DIMM B4                         N/A         Absent                                      NA
     NA
DIMM B5                         N/A         Absent                                      NA
     NA
DIMM B6                         N/A         Absent                                      NA
     NA
DIMM B7                         N/A         Absent                                      NA
     NA
DIMM B8                         N/A         Absent                                      NA
     NA
DIMM B9                         N/A         Absent                                      NA
     NA

Sensor Type : FAN
<Sensor Name>        <Fan Controller>      <Status> <Reading> <lc>     <uc>     <PWM %>
<Type>
Fan1_1               Cooling Controller 1  Ok       10260RPM  600RPM   NA       45.69%
Gold
Fan1_2               Cooling Controller 1  Ok       8190RPM   600RPM   NA       45.69%
Gold
Fan2_1               Cooling Controller 1  Ok       10320RPM  600RPM   NA       45.69%
Gold
```

```
Fan2_2               Cooling Controller 1  Ok       8190RPM   600RPM   NA       45.69%
Gold
Fan3_1               Cooling Controller 1  Ok       10170RPM  600RPM   NA       45.69%
Gold
Fan3_2               Cooling Controller 1  Ok       8190RPM   600RPM   NA       45.69%
Gold
Fan4_1               Cooling Controller 1  Ok       10410RPM  600RPM   NA       45.69%
Gold
Fan4_2               Cooling Controller 1  Ok       8310RPM   600RPM   NA       45.69%
Gold
Fan5_1               Cooling Controller 1  Ok       10320RPM  600RPM   NA       45.69%
Gold
Fan5_2               Cooling Controller 1  Ok       8220RPM   600RPM   NA       45.69%
Gold
Fan6_1               Cooling Controller 1  Ok       10470RPM  600RPM   NA       45.69%
Gold
Fan6_2               Cooling Controller 1  Ok       8280RPM   600RPM   NA       45.69%
Gold

Sensor Type : INTRUSION
<Sensor Name>                 <Intrusion>    <Status>
System Board Intrusion        Closed         Power ON


Sensor Type : POWER
<Sensor Name>                 <Status>              <Type>        <Input Power>
PS1 Status                    Present               ACorDC        189.000Watts
PS2 Status                    Present               ACorDC        194.250Watts

Sensor Type : REDUNDANCY
<Sensor Name>                 <Status>                 <Type>
System Board Fan Redundancy     Redundant                Fan

Sensor Type : MAX DIMM TEMPERATURE
<Sensor Name>                   <Reading>
Max DIMM Temperature            26.000
```

getssninfo

Table 39. getssninfo command parameters and options

getssninfo	
Description	Displays a list of users that are connected to iDRAC. The following information is displayed: • Session ID • Username • IP address (if applicable) • Session type • Login date and time in MM/DD/YYYY HH:MM:SS format **NOTE:** Based on the Session ID (SSNID) or the user name (User), the iDRAC administrator can close the respective sessions or all the sessions using the `closessn` subcommand. For more information, see closessn.
Synopsis	`racadm getssninfo [-u <username>] [-A]`
Input	• `-u`—Displays only sessions that are associated with a specific user. • `-A`—Does not display headers or labels.

Example

```
racadm getssninfo
```

Table 40. racadm getssninfo

SSNID	Type	User	IP Address	Login Date/Time
421690c0-33bf-495b-b014-0f754d318d1f	SSH	root	192.168.0.120	2024-11-02 05:05:19

Display the details of sessions without a header.

```
racadm getssninfo -A
```

```
"421690c0-33bf-495b-b014-0f754d318d1f" "SSH" "root" "192.168.0.120" "2024-11-02 05:05:19"
```

getsysinfo

Table 41. getsysinfo command parameters and options

getsysinfo	
Description	Displays information related to iDRAC, managed system, and watchdog configuration. **NOTE:** The hostname and OS Name fields in the `getsysinfo` output display accurate information only if the **OpenManage Server Administrator (OMSA)** is installed on the managed system. If OMSA is not installed these fields may be blank or inaccurate. An exception to this are the VMware and Windows operating system names, which are displayed even if OMSA is not installed on the managed system.
Synopsis	`racadm getsysinfo [-d] [-A] [-c] [-4] [-6]`
Input	• `-4`—Displays IPv4 settings. • `-6`—Displays IPv6 settings. • `-c`—Displays common settings. • `-d`—Displays iDRAC information. • `-A`—Eliminates the printing of headers or labels.

Output

```
RAC Information:
RAC Date/Time           = Wed Nov 13 21:41:16 2024

Firmware Version        = 1.10.17.00
Firmware Build          = 68
Last Firmware Update    = 11/13/2024 14:59:52
Hardware Version        = 0.01
MAC Address             = 1c:2c:3c:4c:5c:ae
SVC Tag                 = GQKB543

Common settings:
Register DNS RAC Name   = Disabled
DNS RAC Name            = idrac- GQKB543
Current DNS Domain      = local.dnsserver.net
Domain Name from DHCP   = Enabled

IPv4 settings:
Enabled                 = Enabled
Current IP Address      = 192.168.0.120
Current IP Gateway      = 192.168.0.254
Current IP Netmask      = 255.255.255.0
DHCP Enabled            = Enabled
Current DNS Server 1    = 192.168.0.130
Current DNS Server 2    = 192.168.0.140
Current DNS Server 3    = 0.0.0.0
DNS Servers from DHCP   = Enabled

IPv6 settings:
Enabled                 = Enabled
```

```
Current IP Address 1    = 2607:f2b1:f001:191:ba1:791f:91de:55a0/64
Current IP Gateway      = fe80::201:e8ff:fed8:f1b4
Autoconfig              = Enabled
Link Local IP Address   = fe80::dbad:cb50:733e:2568/64
Link Location Prefix Length = 64
Current IP Address 2    = ::
Current IP Address 3    = ::
Current IP Address 4    = ::
Current IP Address 5    = ::
Current IP Address 6    = ::
Current IP Address 7    = ::
Current IP Address 8    = ::
Current IP Address 9    = ::
Current IP Address 10   = ::
Current IP Address 11   = ::
Current IP Address 12   = ::
Current IP Address 13   = ::
Current IP Address 14   = ::
Current IP Address 15   = ::
DNS Servers from DHCPv6 = Enabled
Current DNS Server 1    = 2611:f2b1:f000::111/64
Current DNS Server 2    = ::
Current DNS Server 3    = ::

System Information:
System Model            = PowerEdge R770
System Revision         = I
System BIOS Version     = 1.1.3
Service Tag             = GQKB543
Express Svc Code        = 53996536229
Host Name               = WIN-9BNABC81123
OS Name                 = Windows Server 2022
OS Version              = 10.0
Power Status            = ON
Fresh Air Capable       = Yes
RollupStatus            = Ok
Watchdog Information:
Recovery Action         = None
Present countdown value =  seconds
Initial countdown value =  seconds

System Thermal Information:
EstimatedSystemAirflow  =  123 CFM
EstimatedExhaustTemperature =  28 Degrees Centigrade

Embedded NIC MAC Addresses:
```

Example

- Display system information

  ```
  racadm getsysinfo -c
  ```

- Display iDRAC information

  ```
  racadm getsysinfo -d
  ```

- Display IPv4 details without header

  ```
  racadm getsysinfo -A
  ```

  ```
  "RAC Information:" "Wed Nov 13 21:41:59 2024
  " "1.10.17.00" "68" "11/13/2024 14:59:52" "0.01" "6c:3c:8c:8c:6c:ae" "OT05605"
  "Common settings:" "Disabled" "idrac- GQKB543" "local.dnsserver.net" "Enabled"
  "IPv4 settings:" "Enabled" "192.168.0.120" "192.168.0.254" "255.255.255.0" "Enabled"
  "192.168.0.130" "192.168.0.140" "0.0.0.0" "Enabled" "IPv6 settings:" "Enabled"
  "2611:f2b1:a001:197:ba8:841f:91de44a0/64" "fe80::201:e8ff:fed8:f1b4" "Enabled"
  "fe80::dbad:cb50:733e:2568/64" "64" "::" "::" "::" "::" "::" "::" "::" "::" "::"
  "::" "::" "::" "::" "::" "Enabled" "2607:f2b1:f000::111/64" "::" "::" "System
  Information:" "PowerEdge R770" "I" "1.1.3" " GQKB543" "53996536229" "WIN-9BNABC81SN1"
  "Windows Server 2022" "10.0" "ON" "Yes" "Ok""Watchdog Information:" "None" " seconds"
  ```

```
" seconds" "System Thermal Information:" "123 CFM" "28 Degrees Centigrade" "Embedded
NIC MAC Addresses:"
```

- Display svctag information

```
racadm -r 192.168.0.120get getsysinfo -d
```

getsvctag

Table 42. getsvctag command parameters and options

getsvctag	
Description	Displays the service tag of the host system.
Synopsis	`racadm getsvctag`
Output	Any system tag as applicable.
Example	• Display the service tag of the host system. `racadm getsvctag`

getversion

Table 43. getversion command parameters and options

getversion	
Description	Displays the current software version, model and generation information, and whether the target device can be updated.
Synopsis	• `racadm getversion` • `racadm getversion [-b | -c | –i]` • `racadm getversion [-f <filter>]`

Input	• `-c`—Displays the current CPLD version of the server.
	• `-b`—Displays the current BIOS version of the server.
	• `-i`—Displays the current IDSDM version of the server.
	• `-f <filter>`—Filters the components and must be one of the following values:
	  ○ `bios`: BIOS
	  ○ `idrac`: iDRAC
	  ○ `lc`: Lifecycle Controller
	  ○ `idsdm`: SD card

```
racadm getversion
```

```
Bios Version              = 1.1.3
 iDRAC Version                    = 1.10.05.00
 Lifecycle Controller Version     = 1.10.05.00
```

```
racadm getversion -c
```

```
CPLD Version                     = 106.109.102
```

```
racadm getversion -b
```

```
 Bios Version                     = 1.1.3
```

heatermanager

Table 44. heatermanager command parameters and options

heatermanager	
Description	Displays information about heater managers.
Synopsis	To view information about a heater manager: `racadm heatermanager`

Example	<pre>Health Status : Warning
	Pre-Heat Duration : 0.00 mins
	Cumulative Heat Duration : 0.00 mins
	
	Heater Zone Information:
	
	Zone : NIC 1
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : CPU
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : NIC 2
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : BMC
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : DIMM A2
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : M2
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : RAID
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : NIC 3
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated
	
	Zone : DIMM A1
	Health Status : OK
	Current Heater Status : Off
	Previous Heater Status : Not Heated</pre>

httpsbootcert

Table 45. httpsbootcert command parameters and options

httpsbootcert	
Description	Allows you to manage BIOS https Boot Certificate Management operations.

Synopsis	• To import the bios https Boot Certificate from a remote share or local system
	`racadm httpsbootcert help import`
	• To export the bios https boot Certificate to a remote share or local system
	`racadm httpsbootcert help export`
	• To delete the bios https boot certificate
	`racadm httpsbootcert help delete`

Input	• `-i`—Index of the boot device 1–4. • `-f`—Filename of the bios https Boot Device Certificate. • `-l`—Network share location <CIFS/NFS/HTTP/HTTPS share> • `-u`—Username for the remote share • `-p`—Password for the remote share **NOTE:** The supported file formats are .cer,.der,.crt,.pem and .txt. **NOTE:** This command supports both IPV4 and IPV6 formats. IPV6 is applicable for CIFS, and NFS type remote shares.

Example	• To import the boot device cert with index 1 from a remote CIFS share:
	`racadm httpsbootcert import -i 1 -f httpsboot_cert.txt -l // 192.168.0.120/share -u admin -p mypass`
	• To import the boot device cert with index 2 from a remote NFS share:
	`racadm httpsbootcert import -i 2 -f httpsboot_cert.cer -l 192.168.0.120:/share`
	• To import the boot device cert with index 2 from a remote HTTP share:
	`racadm httpsbootcert import -i 2 -f httpsboot_cert.der -l http:// 192.168.0.120/share -u myuser -p mypass`
	• To import the boot device cert with index 2 from a remote HTTPS share:
	`racadm httpsbootcert import -i 2 -f httpsboot_cert.pem -l https:// 192.168.0.120/share -u myuser -p mypass`
	• To ilmport the boot device cert with index 3 from a local share using local racadm:
	`racadm httpsbootcert import -f httpsboot_cert.crt`
	• To import the boot device cert with index 4 from a local share using remote racadm:
	`racadm -r 192.168.0.120 -u root -p calvin httpsbootcert import -f httpsboot_cert.txt`
	• To export the boot device cert with index 1 to a remote CIFS share:
	`racadm httpsbootcert export -i 1 -f httpsboot_cert.txt -l // 192.168.0.120/share -u admin -p mypass`

Table 45. httpsbootcert command parameters and options (continued)

httpsbootcert	

	• To export the boot device cert with index 2 to a remote NFS share:
	`racadm httpsbootcert export -i 2 -f httpsboot_cert.cer -l 192.168.0.120:/share`
	• To export the boot device cert with index 2 to a remote HTTP share:
	`racadm httpsbootcert export -i 2 -f httpsboot_cert.der -l http://192.168.0.120/share -u myuser -p mypass`
	• To export the boot device cert with index 2 to a remote HTTPS share:
	`racadm httpsbootcert export -i 2 -f httpsboot_cert.crt -l https://192.168.0.120/share -u myuser -p mypass`
	• To export the boot device cert with index 3 to local share using local racadm:
	`racadm httpsbootcert export -f httpsboot_cert.pem`
	• To export the boot device cert with index 4 to a local share using remote racadm:
	`racadm -r 192.168.0.120 -u root -p calvin httpsbootcert export -f httpsboot_cert.txt`
	NOTE: These commands do not support setting the proxy parameters if the share location is HTTP/HTTPS. To perform the operation with HTTP or HTTPS by a proxy, the proxy parameters must be first configured using the `lifecyclecontroller.lcattributes` group. Once these proxy parameters are configured, they become the part of the default configuration. The proxy attributes should be cleared to end use of the HTTP/HTTPS proxy. The valid `lifecyclecontroller.lcattributes` HTTP/HTTPS proxy parameters are:
	• UserProxyUserName
	• UserProxyPassword
	• UserProxyServer
	• UserProxyPort
	• UserProxyType
	To view the list of proxy attributes, use `racadm get lifecycleController.lcAttributes`.
	• To delete the boot device cert with index 1:
	`racadm httpsbootcert delete -i 1`
	• To delete the boot device cert with index 2:
	`racadm httpsbootcert delete -i 2`

hwinventory

Table 46. hwinventory command parameters and options

hwinventory	
Description	Allows you to display or export current internal hardware inventory or shipped hardware inventory by device. **NOTE:** iDRAC supports a maximum of 12 parallel sessions of hardware inventory.
Synopsis	• `racadm hwinventory` • `racadm hwinventory networktransceiver` • `racadm hwinventory NIC|FC|Infiniband`

Table 46. hwinventory command parameters and options (continued)

hwinventory	
	• racadm hwinventory <FQDD> • racadm hwinventory export -f <filename> -u <username> -p <password> -l <CIFS or NFS share> • racadm hwinventory export -f <filename> -u <username> -p <password> -l <HTTP or HTTPS share> -port <port number>
Input	• <FQDD> — Specifies the FQDD of the target device. ○ FQDD — NIC.Slot.1–2 **NOTE:** The hwinventory subcommand supports NIC, Infiniband, and FC FQDDs only. • -f — Exported Hardware Inventory filename. • -u — Username of the remote share to where the file must be exported. Specify the user name in a domain as **domain/username**. • -p — Password for the remote share to where the file must be exported. • -l — Network share location to where the Hardware Inventory must be exported. • -port — Specifies the port number. **NOTE:** This is an optional parameter. If this option is not specified, the default port number is used.

Examples

- To get the hwinventory, run the following command:

```
-------------------------HARDWARE INVENTORY-----------------------

[InstanceID: Battery.Integrated.1:RAID.SL.3-1]
Device Type = ControllerBattery
DeviceDescription = Battery on RAID Controller in SL 3
FQDD = Battery.Integrated.1:RAID.SL.3-1
InstanceID = Battery.Integrated.1:RAID.SL.3-1
PrimaryStatus = OK
RAIDState = Ready
------------------------------------------------------------------

[InstanceID: RAID.SL.3-1]
Device Type = Controller
AlarmState = Alarm Not supported
AutoConfigBehavior = Off
Bus = AE
CPUAffinity = 0
CacheSizeInMB = 8361 MB
CachecadeCapability = Cachecade Virtual Disk not supported
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
ConnectorCount = 5
ControllerFirmwareVersion = 8.8.0.0.18-30
CurrentControllerMode = RAID
Device = 0
DeviceCardDataBusWidth = Unknown
DeviceCardManufacturer = DELL
DeviceCardSlotLength = Unknown
DeviceCardSlotType = Unknown
DeviceDescription = RAID Controller in SL 3
DriverVersion = 8.5.1.0.0
EncryptionCapability = Local Key Management and Secure Enterprise Key Manager Capable
EncryptionMode = Disabled
FQDD = RAID.SL.3-1
Function = 0
InstanceID = RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
MaxAvailablePCILinkSpeed = Not Applicable
```

```
MaxPossiblePCILinkSpeed = Not Applicable
PCIDeviceID = A5
PCISubDeviceID = 22CC
PCISubVendorID = 1028
PCIVendorID = 1000
PatrolReadState = Stopped
PersistentHotspare = Enabled
PrimaryStatus = OK
ProductName = PERC H965i Front
RealtimeCapability = Capable
RollupStatus = OK
SASAddress = 5F4EE0806EB89200
SecurityStatus = Encryption Capable
SharedSlotAssignmentAllowed = Not Applicable
SlicedVDCapability = Sliced Virtual Disk creation supported
SupportControllerBootMode = Supported
SupportEnhancedAutoForeignImport = Supported
SupportRAID10UnevenSpans = Not supported
SupportsLKMtoSEKMTransition = No
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
----------------------------------------------------------------------

[InstanceID: CPU.Socket.0]
Device Type = CPU
CPUFamily = Intel(R) Xeon(TM)
CPUStatus = CPU Enabled
Cache1Associativity = 8-way Set-Associative
Cache1ErrorMethodology = Parity
Cache1InstalledSize = 13824 KB
Cache1Level = L1
Cache1Location = Internal
Cache1PrimaryStatus = OK
Cache1SRAMType = Unknown
Cache1Size = 13824 KB
Cache1Type = Unified
Cache1WritePolicy = Write Back
Cache2Associativity = 16-way Set-Associative
Cache2ErrorMethodology = Single-bit ECC
Cache2InstalledSize = 147456 KB
Cache2Level = L2
Cache2Location = Internal
Cache2PrimaryStatus = OK
Cache2SRAMType = Unknown
Cache2Size = 147456 KB
Cache2Type = Unified
Cache2WritePolicy = Write Back
Cache3Associativity = 12-way Set-Associative
Cache3ErrorMethodology = Single-bit ECC
Cache3InstalledSize = 110592 KB
Cache3Level = L3
Cache3Location = Internal
Cache3PrimaryStatus = OK
Cache3SRAMType = Unknown
Cache3Size = 110592 KB
Cache3Type = Unified
Cache3WritePolicy = Write Back
Characteristics = 64-bit Capable
CurrentClockSpeed = 1900 MHz
DeviceDescription = CPU 0
ExecuteDisabledCapable = Yes
ExecuteDisabledEnabled = Yes
ExternalBusClockSpeed = 24000 MHz
FQDD = CPU.Socket.0
HyperThreadingCapable = No
HyperThreadingEnabled = No
InstanceID = CPU.Socket.0
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel
MaxClockSpeed = 4000 MHz
Model = Intel(R) Xeon(R) 6766E
```

```
NumberOfEnabledCores = 144
NumberOfEnabledThreads = 144
NumberOfProcessorCores = 144
PPIN = DD9BB956A346F58D
PackageMemoryInstalledSize = 0 GiB
PackageMemorySpeed = 0 MT/s
PackageMemoryType = 0
PrimaryStatus = OK
TurboModeCapable = Yes
TurboModeEnabled = Yes
VirtualizationTechnologyCapable = Yes
VirtualizationTechnologyEnabled = Yes
Voltage = 1.8 V
----------------------------------------------------------------------

[InstanceID: CPU.Socket.1]
Device Type = CPU
CPUFamily = Intel(R) Xeon(TM)
CPUStatus = CPU Enabled
Cache1Associativity = 8-way Set-Associative
Cache1ErrorMethodology = Parity
Cache1InstalledSize = 13824 KB
Cache1Level = L1
Cache1Location = Internal
Cache1PrimaryStatus = OK
Cache1SRAMType = Unknown
Cache1Size = 13824 KB
Cache1Type = Unified
Cache1WritePolicy = Write Back
Cache2Associativity = 16-way Set-Associative
Cache2ErrorMethodology = Single-bit ECC
Cache2InstalledSize = 147456 KB
Cache2Level = L2
Cache2Location = Internal
Cache2PrimaryStatus = OK
Cache2SRAMType = Unknown
Cache2Size = 147456 KB
Cache2Type = Unified
Cache2WritePolicy = Write Back
Cache3Associativity = 12-way Set-Associative
Cache3ErrorMethodology = Single-bit ECC
Cache3InstalledSize = 110592 KB
Cache3Level = L3
Cache3Location = Internal
Cache3PrimaryStatus = OK
Cache3SRAMType = Unknown
Cache3Size = 110592 KB
Cache3Type = Unified
Cache3WritePolicy = Write Back
Characteristics = 64-bit Capable
CurrentClockSpeed = 1900 MHz
DeviceDescription = CPU 1
ExecuteDisabledCapable = Yes
ExecuteDisabledEnabled = Yes
ExternalBusClockSpeed = 24000 MHz
FQDD = CPU.Socket.1
HyperThreadingCapable = No
HyperThreadingEnabled = No
InstanceID = CPU.Socket.1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel
MaxClockSpeed = 4000 MHz
Model = Intel(R) Xeon(R) 6766E
NumberOfEnabledCores = 144
NumberOfEnabledThreads = 144
NumberOfProcessorCores = 144
PPIN = DDAADF5661D5EEBC
PackageMemoryInstalledSize = 0 GiB
PackageMemorySpeed = 0 MT/s
PackageMemoryType = 0
PrimaryStatus = OK
TurboModeCapable = Yes
```

```
TurboModeEnabled = Yes
VirtualizationTechnologyCapable = Yes
VirtualizationTechnologyEnabled = Yes
Voltage = 1.8 V
-------------------------------------------------------------------------

[InstanceID: System.Embedded.1#FRU]
Device Type = DCSCM
DeviceDescription = PowerEdge R770
ElementName = PowerEdge R770
FQDD = System.Embedded.1#FRU
Manufacturer = DELL
ManufacturerDate = 2024-08-14 - 09:38:00
PackageType = SCM
PartNumber = 08YJ1G
SerialNumber = CNWS30048300Q1
Tag = System.Embedded.1#FRU
Version = X34
-------------------------------------------------------------------------

[InstanceID: Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = Enclosure
Connector = 0
DeviceDescription = Backplane 1 on Connector 0 of RAID Controller in SL 3
EMMCount = 0
FQDD = Enclosure.Internal.0-1:RAID.SL.3-1
FanCount = 0
InstanceID = Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
PSUCount = 0
PrimaryStatus = OK
ProductName = BP_PSV 0:1
RollupStatus = OK
SlotCount = 16
State = Ready
TempProbeCount = 0
Version = 1.66
WiredOrder = 1
-------------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan1_1]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 10320 RPM
DeviceDescription = Fan1_1
FQDD = iDRAC.Embedded.1#Fan1_1
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan1_1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:21:30
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
-------------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan2_1]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 10320 RPM
DeviceDescription = Fan2_1
FQDD = iDRAC.Embedded.1#Fan2_1
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan2_1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:15:59
PWM = 45 %
PrimaryStatus = OK
```

```
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan3_1]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 10290 RPM
DeviceDescription = Fan3_1
FQDD = iDRAC.Embedded.1#Fan3_1
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan3_1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:22:56
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan4_1]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 10440 RPM
DeviceDescription = Fan4_1
FQDD = iDRAC.Embedded.1#Fan4_1
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan4_1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:48:57
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan5_1]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 10380 RPM
DeviceDescription = Fan5_1
FQDD = iDRAC.Embedded.1#Fan5_1
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan5_1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:18:27
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan6_1]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 10470 RPM
DeviceDescription = Fan6_1
FQDD = iDRAC.Embedded.1#Fan6_1
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan6_1
LastSystemInventoryTime = 2024-11-01T21:40:19
```

```
LastUpdateTime = 2024-11-02T10:48:59
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
-------------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan1_2]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 8190 RPM
DeviceDescription = Fan1_2
FQDD = iDRAC.Embedded.1#Fan1_2
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan1_2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:15:58
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
-------------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan2_2]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 8190 RPM
DeviceDescription = Fan2_2
FQDD = iDRAC.Embedded.1#Fan2_2
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan2_2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:16:39
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
-------------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan3_2]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 8190 RPM
DeviceDescription = Fan3_2
FQDD = iDRAC.Embedded.1#Fan3_2
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan3_2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:16:05
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
-------------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan4_2]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 8310 RPM
DeviceDescription = Fan4_2
FQDD = iDRAC.Embedded.1#Fan4_2
```

```
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan4_2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:49:18
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan5_2]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 8220 RPM
DeviceDescription = Fan5_2
FQDD = iDRAC.Embedded.1#Fan5_2
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan5_2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:16:00
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1#Fan6_2]
Device Type = Fan
ActiveCooling = 1
BaseUnits = RPM
CurrentReading = 8280 RPM
DeviceDescription = Fan6_2
FQDD = iDRAC.Embedded.1#Fan6_2
FanType = Gold
InstanceID = iDRAC.Embedded.1#Fan6_2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:48:54
PWM = 45 %
PrimaryStatus = OK
RateUnits = None
RedundancyStatus = Other
UnitModifier = 0
VariableSpeed = 1
----------------------------------------------------------------------

[InstanceID: SystemHPM.Embedded.1#FRU]
Device Type = HPM
DeviceDescription = HPM
ElementName = HPM
FQDD = SystemHPM.Embedded.1#FRU
Manufacturer = DELL
ManufacturerDate = 2024-08-05 - 20:56:00
PackageType = HPM
PartNumber = 0R8XP6
SerialNumber = CNWS3004820016
Tag = SystemHPM.Embedded.1#FRU
Version = X32
----------------------------------------------------------------------

[InstanceID: iDRAC.Embedded.1-1#IDRACinfo]
Device Type = iDRACCard
DNSDomainName = ept.adc.delllabs.net
DNSRacName = idrac-OT05605
DeviceDescription = iDRAC
FQDD = iDRAC.Embedded.1-1
FirmwareVersion = 1.10.05.00
GUID = 44454c4c-5400-1030-8035-cfc04f363035
IPMIVersion = 2.0
```

```
InstanceID = iDRAC.Embedded.1-1#IDRACinfo
LANEnabledState = Enabled
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T10:49:12
Model = Datacenter
PermanentMACAddress = 6c:3c:8c:8c:6c:ae
ProductDescription = This system component provides a complete set of remote
management functions for PowerEdge servers
SOLEnabledState = Enabled
URLString = https://100.65.214.120:443
----------------------------------------------------------------------

[InstanceID: DIMM.Socket.A1]
Device Type = Memory
BankLabel = A
CPUAffinity = 0
CurrentOperatingSpeed = 6400 MT/s
DeviceDescription = DIMM A1
FQDD = DIMM.Socket.A1
InstanceID = DIMM.Socket.A1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
ManufactureDate = Mon Nov 20 06:00:00 2023 UTC
Manufacturer = Micron Technology
MemoryTechnology = DRAM
MemoryType = DDR5
MemoryTypeExtended = RDIMM
Model = DDR5 DIMM
PartNumber = MTC20F2085S1RC64BD1
PrimaryStatus = OK
Rank = Double Rank
SerialNumber = 4516CBDD
Size = 32768 MB
Speed = 6400 MHz
SystemEraseCapability = Not Supported
VolatileSize = 32768 MB
----------------------------------------------------------------------

[InstanceID: DIMM.Socket.B1]
Device Type = Memory
BankLabel = B
CPUAffinity = 1
CurrentOperatingSpeed = 6400 MT/s
DeviceDescription = DIMM B1
FQDD = DIMM.Socket.B1
InstanceID = DIMM.Socket.B1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
ManufactureDate = Mon Nov 20 06:00:00 2023 UTC
Manufacturer = Micron Technology
MemoryTechnology = DRAM
MemoryType = DDR5
MemoryTypeExtended = RDIMM
Model = DDR5 DIMM
PartNumber = MTC20F2085S1RC64BD1
PrimaryStatus = OK
Rank = Double Rank
SerialNumber = 4516DA7F
Size = 32768 MB
Speed = 6400 MHz
SystemEraseCapability = Not Supported
VolatileSize = 32768 MB
----------------------------------------------------------------------

[InstanceID: NetworkTransceiver.Integrated.1:NIC.Slot.10-1]
Device Type = NetworkTransceiver
DeviceDescription = Network Transceiver in NIC in Slot 10 Port 1
FQDD = NetworkTransceiver.Integrated.1:NIC.Slot.10-1
IdentifierType = SFP/SFP+/SFP28
InstanceID = NetworkTransceiver.Integrated.1:NIC.Slot.10-1
InterfaceType = Direct Attach Copper
PartNumber = 74752-9506
Revision =
```

```
SerialNumber = 216030711
VendorName = Molex Inc.
-----------------------------------------------------------------

[InstanceID: NIC.Slot.10-2-1]
Device Type = NIC
AutoNegotiation = Enabled
BusNumber = 135
CPUAffinity = 0
ControllerBIOSVersion = 229.2.62.0
CurrentMACAddress = 6C:92:CF:1D:8A:B1
DataBusWidth = 16x or x16
DeviceDescription = NIC in Slot 10 Port 2 Partition 1
DeviceNumber = 0
EFIVersion = 229.2.64.0
FCoEOffloadMode = Unknown
FQDD = NIC.Slot.10-2-1
FamilyVersion = 22.92.07.50
FunctionNumber = 1
InstanceID = NIC.Slot.10-2-1
LANDriverVersion = 1.10.3
LastSystemInventoryTime = 2024-10-28T14:38:39
LastUpdateTime = 2024-10-10T20:31:39
LinkDuplex = Unknown
LinkSpeed = Unknown
MaxBandwidth = 100
MediaType = SFF_CAGE
MinBandwidth = 0
NicMode = Enabled
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14e4
PCIVendorID = 14e4
PartNumber = 03Y64D
PermanentMACAddress = 6C:92:CF:1D:8A:B1
PrimaryStatus = OK
ProductName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B1
Protocol = NIC
ReceiveFlowControl = Off
SNAPIState = Disabled
SNAPISupport = Not Available
SerialNumber = VNFCBBA44S014F
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
TransmitFlowControl = Off
UpdateLockdownCapable = True
UpdateLockdownState = Disabled
VPISupport = Not Available
VendorName = Broadcom Corp
iScsiOffloadMode = Unknown
-----------------------------------------------------------------

[InstanceID: NIC.Slot.10-1-1]
Device Type = NIC
AutoNegotiation = Enabled
BusNumber = 135
CPUAffinity = 0
ControllerBIOSVersion = 229.2.62.0
CurrentMACAddress = 6C:92:CF:1D:8A:B0
DataBusWidth = 16x or x16
DeviceDescription = NIC in Slot 10 Port 1 Partition 1
DeviceNumber = 0
EFIVersion = 229.2.64.0
FCoEOffloadMode = Unknown
FQDD = NIC.Slot.10-1-1
FamilyVersion = 22.92.07.50
FunctionNumber = 0
InstanceID = NIC.Slot.10-1-1
LANDriverVersion = 1.10.3
LastSystemInventoryTime = 2024-10-28T14:38:39
LastUpdateTime = 2024-10-10T20:31:39
LinkDuplex = Full Duplex
LinkSpeed = 10 Gbps
```

```
MaxBandwidth = 100
MediaType = SFF_CAGE
MinBandwidth = 0
NicMode = Disabled
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14e4
PCIVendorID = 14e4
PartNumber = 03Y64D
PermanentMACAddress = 6C:92:CF:1D:8A:B0
PrimaryStatus = OK
ProductName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B0
Protocol = NIC,RDMA
ReceiveFlowControl = On
SNAPIState = Disabled
SNAPISupport = Not Available
SerialNumber = VNFCBBA44S014F
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
TransmitFlowControl = On
UpdateLockdownCapable = True
UpdateLockdownState = Disabled
VPISupport = Not Available
VendorName = Broadcom Corp
iScsiOffloadMode = Unknown
----------------------------------------------------------------------

[InstanceID: NIC.Slot.10-3-1]
Device Type = NIC
AutoNegotiation = Enabled
BusNumber = 135
CPUAffinity = 0
ControllerBIOSVersion = 229.2.62.0
CurrentMACAddress = 6C:92:CF:1D:8A:B2
DataBusWidth = 16x or x16
DeviceDescription = NIC in Slot 10 Port 3 Partition 1
DeviceNumber = 0
EFIVersion = 229.2.64.0
FCoEOffloadMode = Unknown
FQDD = NIC.Slot.10-3-1
FamilyVersion = 22.92.07.50
FunctionNumber = 2
InstanceID = NIC.Slot.10-3-1
LANDriverVersion = 1.10.3
LastSystemInventoryTime = 2024-10-28T14:38:39
LastUpdateTime = 2024-10-10T20:31:39
LinkDuplex = Unknown
LinkSpeed = Unknown
MaxBandwidth = 100
MediaType = SFF_CAGE
MinBandwidth = 0
NicMode = Enabled
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14e4
PCIVendorID = 14e4
PartNumber = 03Y64D
PermanentMACAddress = 6C:92:CF:1D:8A:B2
PrimaryStatus = OK
ProductName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B2
Protocol = NIC
ReceiveFlowControl = Off
SNAPIState = Disabled
SNAPISupport = Not Available
SerialNumber = VNFCBBA44S014F
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
TransmitFlowControl = Off
UpdateLockdownCapable = True
UpdateLockdownState = Disabled
VPISupport = Not Available
VendorName = Broadcom Corp
iScsiOffloadMode = Unknown
```

```
-----------------------------------------------------------------

[InstanceID: NIC.Slot.10-4-1]
Device Type = NIC
AutoNegotiation = Enabled
BusNumber = 135
CPUAffinity = 0
ControllerBIOSVersion = 229.2.62.0
CurrentMACAddress = 6C:92:CF:1D:8A:B3
DataBusWidth = 16x or x16
DeviceDescription = NIC in Slot 10 Port 4 Partition 1
DeviceNumber = 0
EFIVersion = 229.2.64.0
FCoEOffloadMode = Unknown
FQDD = NIC.Slot.10-4-1
FamilyVersion = 22.92.07.50
FunctionNumber = 3
InstanceID = NIC.Slot.10-4-1
LANDriverVersion = 1.10.3
LastSystemInventoryTime = 2024-10-28T14:38:39
LastUpdateTime = 2024-10-10T20:31:39
LinkDuplex = Unknown
LinkSpeed = Unknown
MaxBandwidth = 100
MediaType = SFF_CAGE
MinBandwidth = 0
NicMode = Enabled
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14e4
PCIVendorID = 14e4
PartNumber = 03Y64D
PermanentMACAddress = 6C:92:CF:1D:8A:B3
PrimaryStatus = OK
ProductName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B3
Protocol = NIC
ReceiveFlowControl = Off
SNAPIState = Disabled
SNAPISupport = Not Available
SerialNumber = VNFCBBA44S014F
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
TransmitFlowControl = Off
UpdateLockdownCapable = True
UpdateLockdownState = Disabled
VPISupport = Not Available
VendorName = Broadcom Corp
iScsiOffloadMode = Unknown
-----------------------------------------------------------------

[InstanceID: NIC.Slot.4-2-1]
Device Type = NIC
AutoNegotiation = Enabled
BusNumber = 135
CPUAffinity = 1
CurrentMACAddress = E8:EB:D3:F7:CB:99
DataBusWidth = 16x or x16
DeviceDescription = NIC in Slot 4 Port 2 Partition 1
DeviceNumber = 0
EFIVersion = 14.25.18
FCoEOffloadMode = Unknown
FQDD = NIC.Slot.4-2-1
FamilyVersion = 26.32.20.04
FunctionNumber = 1
InstanceID = NIC.Slot.4-2-1
LANDriverVersion = 6.4.0
LastSystemInventoryTime = 2024-10-28T14:38:39
LastUpdateTime = 2024-10-09T00:37:03
LinkDuplex = Unknown
LinkSpeed = Unknown
MaxBandwidth = 0
MediaType = SFF_CAGE
MinBandwidth = 0
```

```
NicMode = Enabled
PCIDeviceID = 101f
PCISubDeviceID = 0019
PCISubVendorID = 15b3
PCIVendorID = 15b3
PartNumber = 0DN78C
PermanentMACAddress = E8:EB:D3:F7:CB:99
PrimaryStatus = OK
ProductName = NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF - E8:EB:D3:F7:CB:99
Protocol = NIC,RDMA
ReceiveFlowControl = Off
SNAPIState = Disabled
SNAPISupport = Not Available
SerialNumber = IL740312840000
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
TransmitFlowControl = Off
UpdateLockdownCapable = True
UpdateLockdownState = Disabled
VPISupport = Not Available
VendorName = Mellanox Technologies, Inc.
iScsiOffloadMode = Unknown
----------------------------------------------------------------------

[InstanceID: NIC.Slot.4-1-1]
Device Type = NIC
AutoNegotiation = Enabled
BusNumber = 135
CPUAffinity = 1
CurrentMACAddress = E8:EB:D3:F7:CB:98
DataBusWidth = 16x or x16
DeviceDescription = NIC in Slot 4 Port 1 Partition 1
DeviceNumber = 0
EFIVersion = 14.25.18
FCoEOffloadMode = Unknown
FQDD = NIC.Slot.4-1-1
FamilyVersion = 26.32.20.04
FunctionNumber = 0
InstanceID = NIC.Slot.4-1-1
LANDriverVersion = 6.4.0
LastSystemInventoryTime = 2024-10-28T14:38:39
LastUpdateTime = 2024-10-09T00:37:03
LinkDuplex = Unknown
LinkSpeed = Unknown
MaxBandwidth = 0
MediaType = SFF_CAGE
MinBandwidth = 0
NicMode = Enabled
PCIDeviceID = 101f
PCISubDeviceID = 0019
PCISubVendorID = 15b3
PCIVendorID = 15b3
PartNumber = 0DN78C
PermanentMACAddress = E8:EB:D3:F7:CB:98
PrimaryStatus = OK
ProductName = NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF - E8:EB:D3:F7:CB:98
Protocol = NIC,RDMA
ReceiveFlowControl = Off
SNAPIState = Disabled
SNAPISupport = Not Available
SerialNumber = IL740312840000
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
TransmitFlowControl = Off
UpdateLockdownCapable = True
UpdateLockdownState = Disabled
VPISupport = Not Available
VendorName = Mellanox Technologies, Inc.
iScsiOffloadMode = Unknown
----------------------------------------------------------------------

[InstanceID: NIC.Slot.10-2-1]
Device Type = PCIDevice
```

```
BusNumber = 135
CPUAffinity = 0
DataBusWidth = 16x or x16
Description = NetXtreme-E BCM57504 4x25G OCP3.0
DeviceDescription = NIC in Slot 10 Port 2 Partition 1
DeviceNumber = 0
FQDD = NIC.Slot.10-2-1
FunctionNumber = 1
InstanceID = NIC.Slot.10-2-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-11T02:31:39
Manufacturer = Broadcom Inc. and subsidiaries
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14E4
PCIVendorID = 14E4
SegmentNumber = 0
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
----------------------------------------------------------------------

[InstanceID: NIC.Slot.10-1-1]
Device Type = PCIDevice
BusNumber = 135
CPUAffinity = 0
DataBusWidth = 16x or x16
Description = NetXtreme-E BCM57504 4x25G OCP3.0
DeviceDescription = NIC in Slot 10 Port 1 Partition 1
DeviceNumber = 0
FQDD = NIC.Slot.10-1-1
FunctionNumber = 0
InstanceID = NIC.Slot.10-1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-11T02:31:39
Manufacturer = Broadcom Inc. and subsidiaries
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14E4
PCIVendorID = 14E4
SegmentNumber = 0
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
----------------------------------------------------------------------

[InstanceID: NIC.Slot.10-3-1]
Device Type = PCIDevice
BusNumber = 135
CPUAffinity = 0
DataBusWidth = 16x or x16
Description = NetXtreme-E BCM57504 4x25G OCP3.0
DeviceDescription = NIC in Slot 10 Port 3 Partition 1
DeviceNumber = 0
FQDD = NIC.Slot.10-3-1
FunctionNumber = 2
InstanceID = NIC.Slot.10-3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-11T02:31:39
Manufacturer = Broadcom Inc. and subsidiaries
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14E4
PCIVendorID = 14E4
SegmentNumber = 0
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
----------------------------------------------------------------------

[InstanceID: NIC.Slot.10-4-1]
Device Type = PCIDevice
BusNumber = 135
CPUAffinity = 0
DataBusWidth = 16x or x16
Description = NetXtreme-E BCM57504 4x25G OCP3.0
```

```
DeviceDescription = NIC in Slot 10 Port 4 Partition 1
DeviceNumber = 0
FQDD = NIC.Slot.10-4-1
FunctionNumber = 3
InstanceID = NIC.Slot.10-4-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-11T02:31:39
Manufacturer = Broadcom Inc. and subsidiaries
PCIDeviceID = 1751
PCISubDeviceID = 5045
PCISubVendorID = 14E4
PCIVendorID = 14E4
SegmentNumber = 0
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
----------------------------------------------------------------------

[InstanceID: HostBridge.Embedded.6-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 6-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.6-1
FunctionNumber = 6
InstanceID = HostBridge.Embedded.6-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
----------------------------------------------------------------------

[InstanceID: NIC.Slot.4-2-1]
Device Type = PCIDevice
BusNumber = 135
CPUAffinity = 1
DataBusWidth = 16x or x16
Description = MT2894 Family [ConnectX-6 Lx]
DeviceDescription = NIC in Slot 4 Port 2 Partition 1
DeviceNumber = 0
FQDD = NIC.Slot.4-2-1
FunctionNumber = 1
InstanceID = NIC.Slot.4-2-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-09T06:37:03
Manufacturer = Mellanox Technologies
PCIDeviceID = 101F
PCISubDeviceID = 0019
PCISubVendorID = 15B3
PCIVendorID = 15B3
SegmentNumber = 1
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
----------------------------------------------------------------------

[InstanceID: NIC.Slot.4-1-1]
Device Type = PCIDevice
BusNumber = 135
CPUAffinity = 1
DataBusWidth = 16x or x16
Description = MT2894 Family [ConnectX-6 Lx]
DeviceDescription = NIC in Slot 4 Port 1 Partition 1
DeviceNumber = 0
FQDD = NIC.Slot.4-1-1
FunctionNumber = 0
```

```
InstanceID = NIC.Slot.4-1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-09T06:37:03
Manufacturer = Mellanox Technologies
PCIDeviceID = 101F
PCISubDeviceID = 0019
PCISubVendorID = 15B3
PCIVendorID = 15B3
SegmentNumber = 1
SlotLength = Other
SlotType = OCP NIC 3.0 Small Form Factor
-----------------------------------------------------------------

[InstanceID: HostBridge.Embedded.4-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 4-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.4-1
FunctionNumber = 4
InstanceID = HostBridge.Embedded.4-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-----------------------------------------------------------------

[InstanceID: HostBridge.Embedded.8-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 8-1
DeviceNumber = 6
FQDD = HostBridge.Embedded.8-1
FunctionNumber = 1
InstanceID = HostBridge.Embedded.8-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-----------------------------------------------------------------

[InstanceID: HostBridge.Embedded.3-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 3-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.3-1
FunctionNumber = 3
InstanceID = HostBridge.Embedded.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
```

```
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-----------------------------------------------------------------------

[InstanceID: RAID.SL.3-1]
Device Type = PCIDevice
BusNumber = 174
CPUAffinity = 0
DataBusWidth = Unknown
Description = PERC H965i Front
DeviceDescription = RAID Controller in SL 3
DeviceNumber = 0
FQDD = RAID.SL.3-1
FunctionNumber = 0
InstanceID = RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T11:24:28
Manufacturer = Broadcom / LSI
PCIDeviceID = 00A5
PCISubDeviceID = 22CC
PCISubVendorID = 1028
PCIVendorID = 1000
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-----------------------------------------------------------------------

[InstanceID: HostBridge.Embedded.1-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 1-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.1-1
FunctionNumber = 1
InstanceID = HostBridge.Embedded.1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-----------------------------------------------------------------------

[InstanceID: SerialBus.Embedded.1-1]
Device Type = PCIDevice
BusNumber = 0
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = SerialBus.Embedded.1-1
DeviceNumber = 31
FQDD = SerialBus.Embedded.1-1
FunctionNumber = 5
InstanceID = SerialBus.Embedded.1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 5794
PCISubDeviceID = 7270
PCISubVendorID = 8086
PCIVendorID = 8086
```

```
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------------

[InstanceID: Video.Embedded.1-1]
Device Type = PCIDevice
BusNumber = 58
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Integrated Matrox G200eW3 Graphics Controller
DeviceDescription = Embedded Video Controller 1
DeviceNumber = 0
FQDD = Video.Embedded.1-1
FunctionNumber = 0
InstanceID = Video.Embedded.1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Matrox Electronics Systems Ltd.
PCIDeviceID = 0536
PCISubDeviceID = 0C65
PCISubVendorID = 1028
PCIVendorID = 102B
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------------

[InstanceID: USBXHCI.Embedded.1-1]
Device Type = PCIDevice
BusNumber = 59
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = uPD720201 USB 3.0 Host Controller
DeviceDescription = Embedded USB XHCI 1
DeviceNumber = 0
FQDD = USBXHCI.Embedded.1-1
FunctionNumber = 0
InstanceID = USBXHCI.Embedded.1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Renesas Electronics Corp.
PCIDeviceID = 0014
PCISubDeviceID = 0000
PCISubVendorID = 0000
PCIVendorID = 1912
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------------

[InstanceID: SMBus.Embedded.1-1]
Device Type = PCIDevice
BusNumber = 0
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded SM Bus 1
DeviceNumber = 31
FQDD = SMBus.Embedded.1-1
FunctionNumber = 4
InstanceID = SMBus.Embedded.1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 5796
PCISubDeviceID = 7270
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------------
```

```
[InstanceID: ISABridge.Embedded.1-1]
Device Type = PCIDevice
BusNumber = 0
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Granite Rapids Chipset LPC Controller
DeviceDescription = Embedded ISA Bridge 1
DeviceNumber = 31
FQDD = ISABridge.Embedded.1-1
FunctionNumber = 0
InstanceID = ISABridge.Embedded.1-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 5795
PCISubDeviceID = 7270
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------

[InstanceID: HostBridge.Embedded.5-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 5-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.5-1
FunctionNumber = 5
InstanceID = HostBridge.Embedded.5-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------

[InstanceID: HostBridge.Embedded.2-1]
Device Type = PCIDevice
BusNumber = 254
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 2-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.2-1
FunctionNumber = 2
InstanceID = HostBridge.Embedded.2-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
-------------------------------------------------------------------------

[InstanceID: HostBridge.Embedded.7-1]
Device Type = PCIDevice
BusNumber = 254
```

```
CPUAffinity = Not Applicable
DataBusWidth = Unknown
Description = Intel Corporation
DeviceDescription = Embedded Host Bridge 7-1
DeviceNumber = 5
FQDD = HostBridge.Embedded.7-1
FunctionNumber = 7
InstanceID = HostBridge.Embedded.7-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-05T19:40:55
Manufacturer = Intel Corporation
PCIDeviceID = 324A
PCISubDeviceID = 0000
PCISubVendorID = 8086
PCIVendorID = 8086
SegmentNumber = 0
SlotLength = Unknown
SlotType = Unknown
----------------------------------------------------------------------

[InstanceID: Disk.Bay.0:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 0 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.0:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 0 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.0:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-3BU-015L-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Online
RemainingRatedWriteEndurance = 99 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB8921F
SecurityState = Not Capable
SerialNumber = S6NANG0WB08867
SizeInBytes = 479559942144 Bytes
Slot = 0
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 479559942144 Bytes
```

```
WWN = 3F4EE0806EB8921F
----------------------------------------------------------------------

[InstanceID: Disk.Bay.1:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 1 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.1:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 0 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.1:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35I-04CF-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Online
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB8921E
SecurityState = Not Capable
SerialNumber = S6NANC0W505004
SizeInBytes = 479559942144 Bytes
Slot = 1
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 479559942144 Bytes
WWN = 3F4EE0806EB8921E
----------------------------------------------------------------------

[InstanceID: Disk.Bay.2:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 2 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
```

```
FQDD = Disk.Bay.2:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 0 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.2:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35I-04ER-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Online
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB8921D
SecurityState = Not Capable
SerialNumber = S6NANC0W505079
SizeInBytes = 479559942144 Bytes
Slot = 2
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 479559942144 Bytes
WWN = 3F4EE0806EB8921D
----------------------------------------------------------------------

[InstanceID: Disk.Bay.3:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 3 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.3:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 0 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.3:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
```

```
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35I-04EK-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Online
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB8921C
SecurityState = Not Capable
SerialNumber = S6NANC0W505074
SizeInBytes = 479559942144 Bytes
Slot = 3
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 479559942144 Bytes
WWN = 3F4EE0806EB8921C
----------------------------------------------------------------------

[InstanceID: Disk.Bay.4:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 4 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.4:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 0 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.4:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35I-04EM-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Online
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB8921B
SecurityState = Not Capable
SerialNumber = S6NANC0W505076
SizeInBytes = 479559942144 Bytes
Slot = 4
SupportedEncryptionTypes = Cryptographic Erase Capable
```

```
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 479559942144 Bytes
WWN = 3F4EE0806EB8921B
----------------------------------------------------------------------

[InstanceID: Disk.Bay.5:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 5 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.5:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 479559942144 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.5:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35I-048B-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Ready
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB8921A
SecurityState = Not Capable
SerialNumber = S6NANC0W504868
SizeInBytes = 479559942144 Bytes
Slot = 5
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 0 Bytes
WWN = 3F4EE0806EB8921A
----------------------------------------------------------------------

[InstanceID: Disk.Bay.8:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
```

```
CryptographicEraseCapable = Capable
DeviceDescription = Disk 8 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.8:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 479559942144 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.8:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35P-014Z-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Ready
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB89217
SecurityState = Not Capable
SerialNumber = S6NANC0W517540
SizeInBytes = 479559942144 Bytes
Slot = 8
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 0 Bytes
WWN = 3F4EE0806EB89217
----------------------------------------------------------------------

[InstanceID: Disk.Bay.9:Enclosure.Internal.0-1:RAID.SL.3-1]
Device Type = PhysicalDisk
BlockSizeInBytes = 512 Bytes
BusProtocol = SATA
CPUAffinity = 0
Certified = Yes
ConfigLockdownCapable = False
ConfigLockdownState = Disabled
Connector = 0
CryptographicEraseCapable = Capable
DeviceDescription = Disk 9 in Backplane 1 of RAID Controller in SL 3
DriveFormFactor = 2.5 inch
EncryptionProtocol = None
ErrorRecoverable = NotApplicable
FQDD = Disk.Bay.9:Enclosure.Internal.0-1:RAID.SL.3-1
FreeSizeInBytes = 479559942144 Bytes
HotSpareStatus = No
InstanceID = Disk.Bay.9:Enclosure.Internal.0-1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
Manufacturer = SAMSUNG
ManufacturingDay = 0
ManufacturingWeek = 0
ManufacturingYear = 0
MaxCapableSpeed = 6 Gbps
MediaType = Solid State Drive
```

```
Model = MZ7L3480HCHQAD3
NonRAIDDiskCachePolicy = Unknown
OperationName = None
OperationPercentComplete = 0 %
PCIeCapableLinkWidth = None
PCIeNegotiatedLinkWidth = None
PPID = KR-0C2C58-SSW00-35P-0150-A00
PowerStatus = On
PredictiveFailureState = Smart Alert Absent
PrimaryStatus = OK
ProductID = MZ7L3480HCHQAD3
RAIDType = Unknown
RaidStatus = Ready
RemainingRatedWriteEndurance = 100 %
Revision = HJ53
RollupStatus = OK
SASAddress = 3F4EE0806EB89216
SecurityState = Not Capable
SerialNumber = S6NANC0W517541
SizeInBytes = 479559942144 Bytes
Slot = 9
SupportedEncryptionTypes = Cryptographic Erase Capable
SystemEraseCapability = CryptographicErasePD
T10PICapability = Not supported
UpdateLockdownCapable = False
UpdateLockdownState = Disabled
UsedSizeInBytes = 0 Bytes
WWN = 3F4EE0806EB89216
----------------------------------------------------------------------

[InstanceID: PSU.Slot.1]
Device Type = PowerSupply
DetailedState = Presence Detected
DeviceDescription = Power Supply 1
EffectiveCapacity = 800
FQDD = PSU.Slot.1
FirmwareVersion = 5b19
InputVoltage = 208 Volts
InstanceID = PSU.Slot.1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 1970-01-01T00:00:00
LineStatus = High line
Manufacturer = DELL
Model = PWR SPLY,800W,RDNT,DELTA
PMBusMonitoring = Capable
PartNumber = 08YNWGA00
PrimaryStatus = OK
Range1MaxInputPower = 918 Watts
RedMinNumberNeeded = 1
RedTypeOfSet = N+1
RedundancyStatus = NA
SerialNumber = CNDED0048101KF
TotalOutputPower = 800 Watts
Type = ACorDC
----------------------------------------------------------------------

[InstanceID: PSU.Slot.2]
Device Type = PowerSupply
DetailedState = Presence Detected
DeviceDescription = Power Supply 2
EffectiveCapacity = 800
FQDD = PSU.Slot.2
FirmwareVersion = 5b19
InputVoltage = 119 Volts
InstanceID = PSU.Slot.2
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 1970-01-01T00:00:00
LineStatus = Low line
Manufacturer = DELL
Model = PWR SPLY,800W,RDNT,DELTA
PMBusMonitoring = Capable
PartNumber = 08YNWGA00
PrimaryStatus = OK
```

```
Range1MaxInputPower = 918 Watts
RedMinNumberNeeded = 1
RedTypeOfSet = N+1
RedundancyStatus = NA
SerialNumber = CNDED0048101JQ
TotalOutputPower = 800 Watts
Type = ACorDC
-------------------------------------------------------------------------

[InstanceID: System.Embedded.1]
Device Type = System
AssetTag =
BIOSReleaseDate = 10/21/2024
BIOSVersionString = 1.1.3
BaseBoardChassisSlot = NA
BatteryRollupStatus = OK
BladeGeometry = Not Applicable
BoardPartNumber = 08YJ1GX34
BoardSerialNumber = CNWS30048300Q1
CPLDVersion = 106.109.102
CPURollupStatus = OK
ChassisName = Main System Chassis
ChassisServiceTag = OT05605
ChassisSystemHeight = 2 U
CoolingRollupStatus = OK
CurrentRollupStatus = OK
DeviceDescription = System
EstimatedExhaustTemperature = 0 Degree C
EstimatedSystemAirflow = 0 CFM
ExpressServiceCode = 53996536229
FQDD = System.Embedded.1
FanRollupStatus = OK
HostName =
InstanceID = System.Embedded.1
IntrusionRollupStatus = OK
IsOEMBranded = False
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-10-26T06:26:28
LicensingRollupStatus = OK
LifecycleControllerVersion = 1.10.05.00
ManagedSystemSize = 2 U
Manufacturer = Dell Inc.
MaxCPUSockets = 2
MaxDIMMSlots = 32
MaxPCIeSlots = 8
MemoryOperationMode = OptimizerMode
MemoryRollupStatus = OK
Model = PowerEdge R770
NodeID = OT05605
PSRollupStatus = OK
PlatformGUID = 3530364f-c0cf-3580-3010-00544c4c4544
PopulatedCPUSockets = 2
PopulatedDIMMSlots = 2
PopulatedPCIeSlots = 2
PowerState = On
PrimaryStatus = OK
RollupStatus = OK
SELRollupStatus = OK
ServerAllocation = Not applicable
ServiceTag = OT05605
StorageRollupStatus = OK
SysMemErrorMethodology = Single-bit ECC
SysMemFailOverState = NotInUse
SysMemLocation = System board or motherboard
SysMemMaxCapacitySize = 8388608 MB
SysMemPrimaryStatus = OK
SysMemTotalSize = 65536 MB
SystemGeneration = 17G Monolithic
SystemHealthRollupStatus = OK
SystemID = 3173
SystemRevision = I
TempRollupStatus = OK
TempStatisticsRollupStatus = OK
```

```
UUID = 4c4c4544-0054-3010-8035-cfc04f363035
VoltRollupStatus = OK
smbiosGUID = 44454c4c-5400-1030-8035-cfc04f363035
----------------------------------------------------------------------

[InstanceID: Disk.Virtual.1:RAID.SL.3-1]
Device Type = VirtualDisk
BlockSizeInBytes = Include 4096 bytes block size disks only
BusProtocol = SATA
Cachecade = Not a Cachecade Virtual Disk
DeviceDescription = Virtual Disk 1 on RAID Controller in SL 3
DiskCachePolicy = Enabled
FQDD = Disk.Virtual.1:RAID.SL.3-1
InstanceID = Disk.Virtual.1:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
LockStatus = Unlocked
MediaType = Solid State Drive
Name = VD
ObjectStatus = Current
OperationName = None
OperationPercentComplete = 0
PendingOperations = None
PhysicalDiskIDs = Disk.Bay.0:Enclosure.Internal.0-1:RAID.SL.3-1
PrimaryStatus = OK
RAIDStatus = Online
RAIDTypes = RAID0
ReadCachePolicy = No Read Ahead
RemainingRedundancy = 0
RollupStatus = OK
SizeInBytes = 479559942144
SpanDepth = 1
SpanLength = 1
StartingLBAinBlocks = 0
StripeSize = 64KB
T10PIStatus = Disabled
VirtualDiskTargetID = 1
WriteCachePolicy = Write Back
----------------------------------------------------------------------

[InstanceID: Disk.Virtual.2:RAID.SL.3-1]
Device Type = VirtualDisk
BlockSizeInBytes = Include 4096 bytes block size disks only
BusProtocol = SATA
Cachecade = Not a Cachecade Virtual Disk
DeviceDescription = Virtual Disk 2 on RAID Controller in SL 3
DiskCachePolicy = Enabled
FQDD = Disk.Virtual.2:RAID.SL.3-1
InstanceID = Disk.Virtual.2:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
LockStatus = Unlocked
MediaType = Solid State Drive
Name = Virtual Disk 2
ObjectStatus = Current
OperationName = None
OperationPercentComplete = 0
PendingOperations = None
PhysicalDiskIDs = Disk.Bay.1:Enclosure.Internal.0-1:RAID.SL.3-1
PrimaryStatus = OK
RAIDStatus = Online
RAIDTypes = RAID0
ReadCachePolicy = No Read Ahead
RemainingRedundancy = 0
RollupStatus = OK
SizeInBytes = 479559942144
SpanDepth = 1
SpanLength = 1
StartingLBAinBlocks = 0
StripeSize = 64KB
T10PIStatus = Disabled
VirtualDiskTargetID = 2
WriteCachePolicy = Write Back
```

```
-------------------------------------------------------------------

[InstanceID: Disk.Virtual.3:RAID.SL.3-1]
Device Type = VirtualDisk
BlockSizeInBytes = Include 4096 bytes block size disks only
BusProtocol = SATA
Cachecade = Not a Cachecade Virtual Disk
DeviceDescription = Virtual Disk 3 on RAID Controller in SL 3
DiskCachePolicy = Enabled
FQDD = Disk.Virtual.3:RAID.SL.3-1
InstanceID = Disk.Virtual.3:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
LockStatus = Unlocked
MediaType = Solid State Drive
Name = Virtual Disk 3
ObjectStatus = Current
OperationName = None
OperationPercentComplete = 0
PendingOperations = None
PhysicalDiskIDs = Disk.Bay.2:Enclosure.Internal.0-1:RAID.SL.3-1
PrimaryStatus = OK
RAIDStatus = Online
RAIDTypes = RAID0
ReadCachePolicy = No Read Ahead
RemainingRedundancy = 0
RollupStatus = OK
SizeInBytes = 479559942144
SpanDepth = 1
SpanLength = 1
StartingLBAinBlocks = 0
StripeSize = 64KB
T10PIStatus = Disabled
VirtualDiskTargetID = 3
WriteCachePolicy = Write Back
-------------------------------------------------------------------

[InstanceID: Disk.Virtual.4:RAID.SL.3-1]
Device Type = VirtualDisk
BlockSizeInBytes = Include 4096 bytes block size disks only
BusProtocol = SATA
Cachecade = Not a Cachecade Virtual Disk
DeviceDescription = Virtual Disk 4 on RAID Controller in SL 3
DiskCachePolicy = Enabled
FQDD = Disk.Virtual.4:RAID.SL.3-1
InstanceID = Disk.Virtual.4:RAID.SL.3-1
LastSystemInventoryTime = 2024-11-01T21:40:19
LastUpdateTime = 2024-11-02T05:24:28
LockStatus = Unlocked
MediaType = Solid State Drive
Name = Virtual Disk 4
ObjectStatus = Current
OperationName = None
OperationPercentComplete = 0
PendingOperations = None
PhysicalDiskIDs =
Disk.Bay.3:Enclosure.Internal.0-1:RAID.SL.3-1,Disk.Bay.4:Enclosure.Internal.0-1:RAID.S
L.3-1
PrimaryStatus = OK
RAIDStatus = Online
RAIDTypes = RAID1
ReadCachePolicy = No Read Ahead
RemainingRedundancy = 1
RollupStatus = OK
SizeInBytes = 479559942144
SpanDepth = 1
SpanLength = 2
StartingLBAinBlocks = 0
StripeSize = 64KB
T10PIStatus = Disabled
VirtualDiskTargetID = 4
WriteCachePolicy = Write Back
-------------------------------------------------------------------
```

- To get the list of NIC FQDDs, run the following command:

```
NIC.Slot.4-1-1:NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF - E8:EB:D3:F7:CB:98
PartitionCapable :                          Not Capable

NIC.Slot.4-2-1:NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF - E8:EB:D3:F7:CB:99
PartitionCapable :                          Not Capable

NIC.Slot.10-1-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B0
PartitionCapable :                          Disabled

NIC.Slot.10-2-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B1
PartitionCapable :                          Disabled

NIC.Slot.10-3-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B2
PartitionCapable :                          Disabled

NIC.Slot.10-4-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B3
PartitionCapable : Disabled
```

- To get the list of Infiniband FQDDs, run the following command:

```
racadm hwinventory InfiniBand
InfiniBand.Slot.3-1-1:Mellanox ConnectX-6 Single Port VPI HDR QSFP Adapter -
12:12:12:11:11:BB
PartitionCapable :                          1

InfiniBand.Slot.3-1-2:Mellanox ConnectX-6 Single Port VPI HDR QSFP Adapter -
12:12:12:11:11:BB
PartitionCapable :                          2
```

- To display the statistics for the NIC FQDD, type the following command:

```
$racadm hwinventory <NIC FQDD>
Total RDMA Packets Received:            0

Total RDMA Packets Transmitted:            0

Total RDMA Bytes Transmitted:            0

Total RDMA Bytes Received:           0

Total RDMA Transmitted ReadRequest Packets:    0

Total RDMA Transmitted Send Packets:        0

Total RDMA Transmitted Write Packets:        0

Total RDMA Protocol Errors:           0

Total RDMA Protection Errors:            0
```

- To get the complete details for NIC.Slot.4-1-1, type the following command:

```
racadm hwinventory NIC.Embedded.1-1-1
Device Description:                         NIC in Slot 4 Port 1 Partition 1
status:                                     OK
PCI Vendor ID:                              15b3
PCI Sub Vendor ID:                          15b3
PCI Device ID:                              101f
PCI Sub Device ID:                          0019
Current MAC Address:                        E8:EB:D3:F7:CB:98
Permanent MAC Address:                      E8:EB:D3:F7:CB:98
Virtual iSCSI MAC Address:                  Unavailable
Permanent iSCSI MAC Address:                Unavailable
Virtual FIP MAC Address:                    Unavailable
Permanent FIP MAC Address:                  Unavailable
Permanent FCoE MAC Address:                 Unavailable
Slot Type:                                  OCP NIC 3.0 Small Form Factor
Data Bus Width:                             16x or x16
Slot Length:                                Other
Bus Number:                                 135
```

```
DeviceNumber:                                   0
Function Number:                                0
Last Update Time:                               2024-10-09T00:37:03
Last System Inventory Time:                     2024-10-28T14:38:39
ProductName:                                    NVIDIA ConnectX-6 Lx 2x 25G SFP28
OCP3.0 SFF - E8:EB:D3:F7:CB:98
WWN:                                            Unavailable
VirtWWN:                                        Unavailable
WWPN:                                           Unavailable
VirtWWPN:                                       Unavailable
Family Version:                                 26.32.20.04
Controller BIOS Version:                        Unavailable
EFI Version:                                    14.25.18
FCoE WWNN:                                      Unavailable
Vendor Name:                                    Mellanox Technologies, Inc.
Number of PCI-e Functions
Supported per Port:                             1
Number of PCI-e Functions
Currently Enabled per Port:                     1
OS Driver Version:                              6.4.0
ISCSI OS Driver Version:                        Unavailable
FCOE OS Driver Version:                         Unavailable
FC OS Driver Version:                           Unavailable
RDMA OS Driver Version:                         Unavailable
Protocol:                                       NIC,RDMA
Link Duplex:                                    Not Applicable
Link Speed:                                     Not Applicable
Auto Negotiated:                                Enabled
Transmit Flow Control:                          Off
Receive Flow Control:                           Off
Media Type:                                     SFFCAGE
NIC Mode:                                       Enabled
FCoE Offload Mode:                              Not Applicable
iSCSI Offload Mode:                             Not Applicable
SNAPI Support:                                  Not Available
SNAPI State:                                    Disabled
VPI Support:                                    Not Available
Update Lockdown Capable:                        True
Update Lockdown State:                          Disabled
CPU Affinity:                                   1
Max Bandwidth:                                  Not Applicable
Min Bandwidth:                                  Not Applicable
Max Number of IOs per session supported:        0
Number of Max LOGINs per port:                  0
Max Number of exchanges:                        0
Max NPIV WWN per port:                          0
Number of Targets Supported:                    0
Max Number of outstanding commands
supported across all sessions:                  0
Virtual Addressing:                             Capable
UEFI:                                           Capable
iSCSI Offload:                                  Not Capable
iSCSI Boot:                                     Capable
TCP OffloadEngine:                              Not Capable
FCoE:                                           Not Capable
FCoE Boot:                                      Not Capable
PXE Boot:                                       Capable
SRIOV:                                          Capable
Wake on LAN:                                    Capable
Network Management Pass Through:                Capable
OS2BMC PassThrough:                             Capable
Energy Efficient Ethernet:                      Not Capable
On Chip Thermal Sensor:                         Capable
NPar:                                           Not Capable
Remote PHY:                                     Not Capable
Feature Licensing:                              Not Capable
IPSec Offload:                                  Not Capable
MAC Sec:                                        Not Capable
RDMA:                                           Capable
Enhanced Transmission Selection:                Capable
Priority Flow Control:                          Capable
DCB Exchange Protocol:                          Capable
Congestion Notification:                        Capable
```

```
VEB-VEPA Single Channel:                        Not Capable
VEB:                                            Not Capable
VEB-VEPA Multi Channel:                         Not Capable
EVB:                                            Not Capable
BPE:                                            Not Capable
Open Flow:                                      Not Capable
Partition WOL Support:                          Not Capable
Virtual Link Control:                           Not Capable
Partition RX Flow Control:                      Capable
Partition TX Flow Control:                      Capable
TX Bandwidth Control Maximum:                   Capable
TX Bandwidth Control Minimum:                   Capable
Persistence Policy Capability:                  Capable
```

- To get the list of network transceivers, type the following command:

```
racadm hwinventory networktransceiver
NIC.Slot.10-1-1
```

- To display the network transceiver properties with FQDD, type the following command:

```
racadm hwinventory networktransceiver NIC.Slot.10-1-1
Vendor Name:                                    Molex Inc.
Part Number:                                    74752-9506
Serial Number:                                  216030711
Revision:                                       Unavailable
Identifier Type:                                SFP/SFP+/SFP28
```

- To export the inventory to a remote CIFS share, type the following command:

```
racadm hwinventory export -f Myinventory.xml -u admin -p xxx
  -l //192.168.0.130/share
```

- To export the inventory to a remote NFS share, type the following command:

```
racadm hwinventory export -f Myinventory.xml -u admin -p xxx
  -l 192.168.0.120:/share
```

- To export the inventory to local file system using local RACADM, type the following command:

```
racadm hwinventory export -f Myinventory.xml
```

- To export the inventory to a remote HTTP share:

```
racadm hwinventory export -f Myinventory.xml -u httpuser -p httppass -l http://
test.com/share -port 8080
```

- To export the inventory to a remote HTTPS share:

```
racadm hwinventory export -f Myinventory.xml -u httpuser -p httppass -l http://
test.com/share -port 8080
```

- To list all the accelerator device FQDD available in each Slot.N-Index, type the following command:

```
racadm hwinventory accelerator
ProcAccelerator.slot.1-1
ProcAccelerator.slot.1-2
ProcAccelerator.slot.2-1
Video.Slot.3-1
UBB.Integrated.1-1
```

- To display the standard hardware inventory details of the Universal BaseBoard (UBB), UBB.Integrated.1-1, type the following command:

```
racadm hwinventory UBB.Integrated.1-1

Model:                                          Integrated Matrox G200eW3 Graphics
Controller                                                          Controller
Board Part Number:                              900-21228-3850-100
Serial Number:                                  0322411000001
```

```
Part Number:                                    1091-890-A2
Firmware Version:                               NA
```

- To display the Standard hardware inventory verbose description for the ProcAccelerator.Slot.8-1, type the following command:

```
racadm hwinventory ProcAccelerator.Slot.8-1

Model:                                           Not Available
Board Part Number:                               Not Available
Serial Number:                                   Not Available
FPGA Part Number:                                Not Applicable
Firmware Version:                                Not Available
CPUAffinity:                                     1
```

- To display the standard hardware inventory verbose description for the Video.Slot.3-1, type the following command:

```
racadm hwinventory Video.Slot.3-1

Model:                                          Integrated Matrox G200eW3 Graphics
Controller
Board Part Number:                              900-21228-3850-100
Serial Number:                                  0322411000001
Part Number:                                    1091-890-A2
Release Date:                                   20180816
Firmware Version:                               1.0
```

- To display the information about InfiniBand Cards and its FQDDs:

```
racadm hwinventory InfiniBand
```

- To display the Standard hardware inventory verbose description for the FC.Slot.2–1, type the following command:

```
racadm hwinventory FC.Slot.2-1
PCI Vendor ID:                                  1077
PCI Sub Vendor ID:                              1077
PCI Device ID:                                  2532
PCI Sub Device ID:                              015c
PCI Bus:                                        67
PCI Device:                                     0
PCI Function:                                   0
Vendor Name:                                    Unavailable
Device Name:                                    QLogic QLE2560 8Gb Fibre Channel
Adapter - 21000024FF089D8A
WWN:                                            20:00:00:24:FF:08:9D:8A
VirtWWN:                                        20:00:00:24:FF:08:9D:8A
WWPN:                                           21:00:00:24:FF:08:9D:8A
VirtWWPN:                                       21:00:00:24:FF:08:9D:8A
Chip Type:                                      ISP2532
Family Version:                                 02.57.14
EFI Version:                                    2.34
OS Driver Version:                              Unavailable
First FC Target WWPN:                           50:06:01:60:44:60:28:8C
First FC Target LUN:                            0
Second FC Target WWPN:                          00:00:00:00:00:00:00:00
Second FC Target LUN:                           0
Hard Zone Address:                              0
Hard Zone Enable:                               Disabled
FC Tape Enable:                                 Disabled
Loop reset Delay:                               5
Frame Payload Size :                            2048
Fabric Login Retry Count:                       0
Fabric Login Timeout:                           0
Port Login Retry Count:                         8
Port Login Timeout:                             3000
Port Down Retry Count:                          45
Port Down Timeout:                              0
Link Down Timeout:                              45000
Port Number:                                    1
Port Speed:                                     0
No capabilities found for FQDD "FC.Slot.2-1"
racadm>> racadm hwinventory FC.Slot.3-1
PCI Vendor ID:                                  1077
```

```
PCI Sub Vendor ID:                              1077
PCI Device ID:                                  2031
PCI Sub Device ID:                              0256
PCI Bus:                                        4
PCI Device:                                     0
PCI Function:                                   0
Vendor Name:                                    QLogic
Device Name:                                    QLogic QLE2660 16Gb FC Adapter -
2001000E1E091075
WWN:                                            20:00:00:0E:1E:09:10:75
VirtWWN:                                        20:00:00:0E:1E:09:10:75
WWPN:                                           20:01:00:0E:1E:09:10:75
VirtWWPN:                                       20:01:00:0E:1E:09:10:75
Chip Type:                                      8324, Rev. 02
Family Version:                                 02.00.84
EFI Version:                                    5.30
OS Driver Version:                              9.1.10.27
First FC Target WWPN:                           00:00:00:00:00:00:00:00
First FC Target LUN:                            0
Second FC Target WWPN:                          00:00:00:00:00:00:00:00
Second FC Target LUN:                           0
Hard Zone Address:                              0
Hard Zone Enable:                               Disabled
FC Tape Enable:                                 Disabled
Loop reset Delay:                               5
Frame Payload Size :                            2048
Fabric Login Retry Count:                       0
Fabric Login Timeout:                           0
Port Login Retry Count:                         8
Port Login Timeout:                             3000
Port Down Retry Count:                          30
Port Down Timeout:                              0
Link Down Timeout:                              30000
Port Number:                                    1
Port Speed:                                     0
Max Number of IOs per connection supported:     9
Maximum number of Logins per port:              8
Maximum number of exchanges:                    9
Maximum NPIV per port:                          1
Maximum number of FC Targets supported:         8
Maximum number of outstanding commands across all connections: 9
Flex Addressing:                                Capable
UEFI:                                           Capable
FC Start:                                        Capable
On Chip Thermal Sensor:                         Capable
Feature Licensing:                              Not Capable
```

ifconfig

Table 47. ifconfig command parameters and options

ifconfig	
Description	Displays the contents of the network interface table. To use this subcommand, you must have the Execute Diagnostic Commands permission.
Synopsis	`racadm ifconfig`
Input	N/A

Table 48. Example

Example	

`eth0`	`Link encap:Ethernet  HWaddr 00:1D:09:FF:DA:23`
	`inet addr:192.168.0.130 Bcast:192.168.0.255 Mask:255.255.255.0`
	`UP BROADCAST RUNNING MULTICAST  MTU:1500 Metric:1`

Table 48. Example

Example	
	RX packets:2550665 errors:0 dropped:0 overruns:0 frame:0 TX packets:0 errors:0 dropped:0 overruns:0 carrier:0 collisions:0 txqueuelen:1000 RX bytes:272532097 (259.9 MiB) TX bytes:0 (0.0 B)

ilkm

Table 49. ilkm command parameters and options

ilkm	
Description	The ilkm subcommand allows you to enable or disable ilkm support for a server, and rekey ilkm-supported devices on a server. To run this subcommand, you must have the following privileges: • **Enable**—server control and configure iDRAC privileges • **Disable**—server control and configure iDRAC privileges • **Rekey**—server control and configure iDRAC privileges • **Getstatus**—login privileges

Synopsis	**NOTE:** To run enable or disable subcommands, the target server must have sekm license.
	• To get ilkm status.
	`racadm ilkm getstatus`
	• To enable ilkm feature.
	`racadm ilkm enable -keyid <keyID> -passphrase <password>`
	• To disable ilkm feature.
	`racadm ilkm disable`
	• To request iDRAC to rekey all ilkm devices.
	`racadm ilkm rekey -oldpassphrase <password> -newkeyid <keyID> -newpassphrase <password>`

Input	• `-keyid`—Key Identifier • `-passphrase`—Password • `-oldpassphrase`—Old Password • `-newkeyid`—New Key ID • `-newpassphrase`—New Password

Example	• To get ilkm status.
	`racadm ilkm getstatus`
	• To enable ilkm feature.
	`racadm ilkm enable -keyid keyID -passphrase password`
	• To disable ilkm feature.
	`racadm ilkm disable`
	• To request iDRAC to rekey all ilkm devices.
	`racadm ilkm rekey -oldpassphrase password -newkeyid keyID -newpassphrase pasword`

infinibandstatistics

Table 50. infinibandstatistics command parameters and options

infinibandstatistics	
Description	Displays the list of InfiniBand devices managed by the server for which statistics are available.
Synopsis	• `racadm infinibandstatistics <Infiniband FQDD>`
Input	• `<Infiniband FQDD>` — The fully qualified device descriptor of the device. **NOTE:** `Partition Driver State` and `Partition OS Driver State` properties are the same for infinibandstatistics.

Example	• Display the statistics of all InfiniBand devices managed by the server.
	`racadm infinibandstatistics`
	• Display the statistics of the InfiniBand specified by InfiniBand.Slot.3-1.
	`racadm infinibandstatistics InfiniBand.Slot.3-1`
	`Device Description: InfiniBand in Slot 3 Port 1 Partition 1`
	`Port Transmit Data: 0`
	`Port Receive Data: 0`
	`Port Transmit Packets: 0`
	`Port Receive Packets: 0`
	`Port Transmit Wait: 0`
	`Port Transmit Discard: 0`
	`Symbol Error Count: 0`
	`Link Error Recovery Count: 0`
	`Link Downed Count: 0`
	`Port Receive Errors: 0`
	`Port Receive Remote Physical Errors: 0`
	`Port Receive Switch Relay Errors: 0`
	`Local Link Integrity Errors: 0`
	`Excessive Buffer Overrun: 0`
	`VL15 Dropped: 0`
	`Total Bytes Received: Not Applicable`
	`Total Bytes Transmitted: Not Applicable`
	`Total Unicast Bytes Received: Not Applicable`
	`Total Multicast Bytes Received: Not Applicable`
	`Total Broadcast Bytes Received: Not Applicable`
	`Total Unicast Bytes Transmitted: Not Applicable`
	`Total Multicast Bytes Transmitted: Not Applicable`
	`Total Broadcast Bytes Transmitted: Not Applicable`
	`FCS Error Packets Received: Not Applicable`
	`Alignment Error Packets Received: Not Applicable`
	`False Carrier Error Packets Received: Not Applicable`
	`Runt Frames Received: Not Applicable`
	`Jabber Error Frames Received: Not Applicable`
	`Total Pause XON Frames Received: Not Applicable`
	`Total Pause XOFF Frames Received: Not Applicable`
	`Discarded Packets: 0`
	`Total Pause XON Frames Transmitted: Not Applicable`
	`Total Pause XOFF Frames Transmitted: Not Applicable`
	`Single Collision Frames Transmitted: Not Applicable`
	`Multiple Collision Frames Transmitted: Not Applicable`
	`Late Collision Frames Transmitted: Not Applicable`
	`Excessive Collision Frames Transmitted: Not Applicable`
	`Link Status: Down`
	`Link Width: Not Available`
	`Link Speed: Not Available`
	`Partition Link Status: Up`
	`Partition Driver State: Operational`
	NOTE: When Port, Partition or RDMA statistics are not available, the output displays `No Port/Partition/RDMA Statistics found for FQDD <Infiniband FQDD>`.

inlettemphistory

Table 51. inlettemphistory command parameters and options

inlettemphistory	
Description	Displays the average and the peak temperatures during the last hour, day, week, month, or year. Also Exports the inlet temperature history datafile. The file can be exported to a remote file share, local file system, or the management station. **NOTE:** For FM120x4 systems, this subcommand provides the historical data for system board temperature.

Synopsis	• `racadm inlettemphistory get`
	`racadm inlettemphistory export -f <Filename> -u <username> -p <password>\`
	`-l <location> -t <export file type>`
	`racadm -r <idrac ip> -u <idrac username> -p <idrac password> inlettemphistory\`
	`export -f <Filename> -u <username> -p <password> -l <location> -t <export file type>`
	This command does not support setting the proxy parameters if the share location (-l) is HTTP/HTTPS. To perform the operation with HTTP or HTTPS through a proxy, the proxy parameters must be first configured using the lifecyclecontroller.lcattributes. Once these proxy parameters are configured, they become the part of the default configuration; the proxy attributes should be cleared to end use of the HTTP/HTTPS proxy. The valid lifecyclecontroller.lcattributes HTTP/HTTPS proxy parameters are:
	• `UserProxyUserName`
	• `UserProxyPassword`
	• `UserProxyServer`
	• `UserProxyPort`
	• `UserProxyType`
	To view the list of proxy attributes, use `racadm get lifecycleController.lcAttributes`.

Input	• `-f` — Exports inlet temperature history filename. The maximum length of this parameter is 64 characters. **NOTE:** If a file with the specified filename exists, then the older file is replaced with the new history file. • `-u` — User name of the remote share to export the file. Specify the username in a domain as domain or username. • `-p` — Password for the remote share to where the file must be exported. • `-l` — Network share location to where the inlet temperature history must be exported. The maximum length of this parameter is 256 characters. **NOTE:** The supported network locations are CIFS, NFS, HTTP, and HTTPS. • `-t` — Specifies the exported file type. Valid values are `xml` and `csv`. These values are case-insensitive. **NOTE:** From RACADM firmware, only export to a remote share is supported. The behavior of remote share is not defined when the path specified (`-l`) contains special characters. **NOTE:** This command supports both IPV4 and IPV6 formats. IPV6 is applicable for CIFS, and NFS type remote shares.
Example	• Export the log to a remote CIFS share. `racadm inlettemphistory export -f Mylog.xml -u admin -p xxx -l // 192.168.0.120/share -t xml`

Table 51. inlettemphistory command parameters and options (continued)

inlettemphistory	

	• Export the log to a remote HTTP share.
	`racadm inlettemphistory export -f Mylog.xml -u httpuser -p httppwd\n -l http://test.com -t xml`
	• Export the log to a remote HTTPS share.
	`racadm inlettemphistory export -f Mylog.xml -u httpsuser -p httpspwd\n -l https://test.com -t xml`
	• Export the log to a remote NFS share.
	`racadm inlettemphistory export -f Mylog.csv -l 1.2.3.4:/home/user -t csv`
	• Export the log to a remote FTP share.
	`racadm inlettemphistory export -f Mylog.csv -u ftpuser -p ftppwd -l ftp://test.com/share -t csv`
	• Export the log to a remote TFTP share.
	`racadm inlettemphistory export -f Mylog.csv -l tftp://test.com/share -t csv`
	• Export the log to a local file system using Local RACADM.
	`racadm inlettemphistory export -f Mylog.xml -t xml`
	• Export the log to the management station using Remote RACADM.
	`racadm -r 1.2.3.4 -u user -p xxx inlettemphistory export -f Mylog.csv -t csv`
	• View the inlet temperature history.
	`racadm inlettemphistory get`
	`Duration Above Warning Threshold as Percentage = 0.0%`
	`Duration Above Critical Threshold as Percentage = 0.0%`
	`Average Temperatures`
	`Last Hour = 23C ( 73.4F )`
	`Last Day = 24C ( 75.2F )`
	`Last Week = 24C ( 77.0F )`
	`Last Month = 25C ( 77.0F )`
	`Last Year = 23C ( 73.4F )`
	`Peak Temperatures`
	`Last Hour = 23C ( 73.4F ) [At Sat, 02 Nov 2024 15:00:57]`
	`Last Day = 25C ( 77.0F ) [At Sat, 02 Nov 2024 11:37:23]`
	`Last Week = 27C ( 80.6F ) [At Fri, 26 Oct 2024 10:38:20]`
	`Last Month = 29C ( 84.2F ) [At Wed, 24 Oct 2024 15:34:13]`
	`Last Year = 29C ( 84.2F ) [At Thu, 23 Nov 2023 15:34:13]`
	• Configure the proxy parameter.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername admin1`
	• Remove the proxy parameter.
	`racadm set lifecyclecontroller.lcattributes.UserProxyUsername`
	• View the list of proxy attributes.
	`racadm get lifecycleController.lcAttributes`

jobqueue

Table 52. jobqueue parameters and options

jobqueue	
Description	Enables you to view and delete a job or jobs in the current Job Queue. **NOTE:** • To run this subcommand, you must have the **Server control** privilege. • If an unexpected error message is displayed for any operation, ensure you delete some jobs in the jobqueue and retry the operation. • Use jobqueue create command after applying a pending device configuration. Else, you may see a job creation and deletion in the lclog. • Multi-object Set commands using XML, or JSON files do NOT require a `jobqueue create` command; jobs will be automatically created by the Set command. • The **Scheduled Start Time** for the jobs is displayed as **Not Applicable**. However, in the iDRAC UI, the **Scheduled Start Time** is available for the jobs.

Synopsis	`racadm jobqueue view -i<jobid>`
	
	`racadm jobqueue delete [-i<jobid>][--all]`
	
	where valid options are `-i` and `--all`.
	
	`racadm jobqueue create <fqdd> [-r <reboot type> ] [-s <start time> ] [-e <expiry time>]`
	
	`racadm jobqueue create <fqdd> [-r <reboot type>] [-s <start time>] [-e <expiration time>] [--realtime]`

Input	• `-i`—Specifies a job ID that is displayed or deleted. **NOTE:** The value `JID_CLEARALL` forces delete all the possible jobs in the queue. • `--all`—The job IDs that are not applicable are deleted. • `-fqdd`—Specifies an FQDD for which a job should be created. • `–r <reboot type>` — Specifies a reboot type. o `none`—No Reboot Job. This option is the default value. o `pwrcycle`—Power cycle. o `graceful`—Graceful Reboot without forced shutdown. o `forced` —Graceful Reboot with forced shutdown. • `start time`—Specifies a start time for a job that is scheduled in the yyyymmddhhmmss format. TIME_NOW means immediate. Next Reboot means the job is in the scheduled state until the next manual restart. • `expiry time`—Specifies expiry time for the job execution in the `yyyymmddhhmmss` format. The job must start by this time. TIME_NA means the expiry time is not applicable. • `--realtime`—Specifies the real time job. **NOTE:** o `--realtime` is applicable for storage configuration commands that are run on PowerEdge servers with PERC 9 or newer storage controllers. To check if the controller supports realtime capability, run `storage get controllers -o -p RealtimeConfigurationCapability` command. o `-r` option is not valid for real time configuration.

Table 52. jobqueue parameters and options (continued)

jobqueue	

Example	• View jobs in the current job queue.
	`racadm jobqueue view`
	• View the status of a specific job ID.
	`racadm jobqueue view -i <JobID>`
	• Issue configuration changes for a PowerEdge RAID controller then start a real time job to perform the changes.
	`racadm set RAID.Slot.3-1.RAIDdefaultWritePolicy WriteBack`
	`racadm set RAID.Slot.3-1.Name "Prod Workload"`
	`racadm jobqueue create RAID.Slot.3-1 -realtime`
	• Delete all possible jobs from the current job queue.
	`racadm jobqueue delete --all`
	• Delete a specific job from the current job queue.
	`racadm jobqueue delete -i <JobID>`
	• To clear all the jobs in the job queue.
	`racadm jobqueue delete -i JID_CLEARALL`
	• Create a Job for the provided FQDD and add it to the job queue.
	`racadm jobqueue create NIC.Integrated.1-1 -r pwrcycle -s TIME_NOW -e 20240501100000`
	NOTE: Because RACADM does not support Warm Boot job creation, you will not observe any Lifecycle Controller log messages.
	• Create a real-time configuration job for the specified RAID controller.
	`racadm jobqueue create RAID.Integrated.1-1 -s TIME_NOW --realTime`
	`RAC1024: Successfully scheduled a job.`
	`Verify the job status using "racadm jobqueue view -i JID_xxxxx" command.`
	`Commit JID = JID_927008261880`
	• Create a commit job for InfiniBand objects.
	`racadm jobqueue create <InfiniBand FQDD>`

krbkeytabupload

Table 53. krbkeytabupload parameters and options

krbkeytabupload	
Description	Uploads a `Kerberos keytab` file to iDRAC. To run this subcommand, you must have the Server Control privilege.
Synopsis	`racadm krbkeytabupload [-f <filename>]` `<filename>` is the name of the file including the path.

Table 53. krbkeytabupload parameters and options (continued)

krbkeytabupload	
Input	`-f` — Specifies the filename of the keytab uploaded. If the file is not specified, the keytab file in the current directory is selected.
Output	When successful `Kerberos Keytab successfully uploaded to the RAC` message is displayed. If unsuccessful, appropriate error message is displayed.
Example	`racadm krbkeytabupload -f c:\keytab\krbkeytab.tab`

lclog

Table 54. lclog parameters and options

lclog	
Description	Allows you to: • Export the lifecycle log history. The log exports to remote or local share location. • View the ifecycle log for a particular device or category. • Add comment to a record in Lifecycle log • Add a work note (an entry) in the Lifecycle log. • View the status of a configuration job. **NOTE:** • When you run this command on Local RACADM, the data is available to RACADM as a USB partition and may display a pop-up message. • While Lifecycle Controller is running for racadm commands, you cannot perform other operation which needs Lifecycle Controller Partition. If the Lifecycle Controller Partition is unreleased (because of improper closure of RACADM command in the partition), then you must wait 20-35 minutes to clear the Lifecycle Controller Partition.

Synopsis	`racadm lclog comment edit -q <sequence number> -m <Text to be added>`
	
	`racadm lclog view -i <number of records> -a <agent id>  -c <category> -s <severity> -b <sub-category> -q <sequence no> -n <number of records> -r <start timestamp> -e <end timestamp>`
	
	`racadm lclog export -f <filename> -u <username> -p <password> -l <CIFS or NFS or TFTP or FTP share>`
	
	`racadm lclog export -f <filename> -u <username> -p <password> -l <HTTP or HTTPS share> -port <port number>`
	
	`racadm lclog export -f <filename> -u <username> -p <password> -l <CIFS or NFS or TFTP or FTP share> --complete`
	
	`racadm lclog export -f <filename> -u <username> -p <password> -l <HTTP or HTTPS share> -port <port number> --complete`
	
	`racadm -r <idracip> -u <idrac username> -p <idrac password> lclog export\ -f <filename> -u <username> -p <password> -l <CIFS or NFS or TFTP or FTP share>`
	
	`racadm -r <idracip> -u <idrac username> -p <idrac password> lclog export\ -f <filename> -u <username> -p <password> -l <HTTP or HTTPS  share>`

Table 54. lclog parameters and options (continued)

lclog	

	`-port <port number>`
	
	`racadm -r <idracip> -u <idrac username> -p <idrac password> lclog export\ -f <filename> -u <username> -p <password> -l <CIFS or NFS or TFTP or FTP share> -- complete`
	
	`racadm -r <idracip> -u <idrac username> -p <idrac password> lclog export\ -f <filename> -u <username> -p <password> -l <HTTP or HTTPS share> -port <port number> -- complete`
	
	`racadm lclog viewconfigresult -j <job ID>`
	
	`racadm lclog worknote add -m <text to be added>`

Input	• `-i`—Displays the number of records present in the active log.
	• `-a`—The agent ID used to filter the records. Only one agent ID is accepted. The value is case-insensitive. Valid Agent-ID values:
	  ○ `UEFI_SS_USC`
	  ○ `CusOsUp`
	  ○ `UEFI_Inventory`
	  ○ `iDRAC`
	  ○ `UEFI_DCS`
	  ○ `SEL`
	  ○ `RACLOG`
	  ○ `DE`
	  ○ `RACADM`
	  ○ `iDRAC_GUI`
	• `-k`—Filters the records based on the filter string that is provided in **racadm lclog view** command.
	• `-c` — The category used to filter the records. Provides multiple categories using a "," as the delimiter. The value is case-insensitive. Valid category values:
	  ○ `System`
	  ○ `Storage`
	  ○ `Worknotes`
	  ○ `Config`
	  ○ `Updates`
	  ○ `Audit`
	• `-b`—The subcategory used to filter the records. Provides multiple subcategories using a "," as the delimiter.
	• `-q`—The sequence number from which the records must be displayed. Records older than this sequence number is displayed.
	  NOTE: This parameter input is an integer. If an alphanumeric input is provided, then invalid subcommand syntax error is displayed.
	• `-n`—Specifies the n number of records that must be displayed. On Local RACADM, if this parameter is not specified, by default 100 logs are retrieved.
	• `-r`—Displays events that have occurred after this time. The time format is yyyy-mm-dd HH:MM:SS. The timestamp must be provided within double quotation marks.
	• `-e`—Displays events that have occurred before this time. The time format is yyyy-mm-dd HH:MM:SS. The timestamp must be provided within double quotation marks.
	• `-f <filename>`—Specifies the file location and name where the lifecycle log is exported.
	• `-a <name>`—Specifies the FTP Server IP address or FQDN, username, and password.

Table 54. lclog parameters and options (continued)

lclog	

	• `-l <location>`—Specifies the location of the network share or area on file system where the lifecycle log is exported. Two types of network shares are supported:
	  ○ SMB-mounted path: `//<ipaddress or domain name>/<share_name>/<path to image>`
	  ○ NFS-mounted path: `<ipaddress>:/<path to image>`.
	• `-u <user>`—Specifies the username for accessing the FTP server, or Domain and the username for accessing the network share location.
	• `-p <password>`—Specifies the password for accessing the FTP server or share location.
	• `-port <port number>`—Specifies the port number.
	NOTE: This is an optional parameter. If this option is not specified, the default port number is used.
	• `-s`—The severity used to filter the records. Provide multiple severities using a "," as the delimiter. The value is case-insensitive. Valid Severity values:
	  ○ `Warning`
	  ○ `Critical`
	  ○ `Info`
	• —`m <Comment>` —User comment string for a record that must be inserted in the Lifecycle Controller log. This comment string must be fewer than 128 characters. The text must be specified within double quotation mark.
	NOTE: HTML-specific characters may appear as escaped text.
	• `-m <Worknote>`—Adds a worknote (an entry) in the Lifecycle log. This worknote must be less than 256 characters. The text must be specified within double quotation mark.
	NOTE: HTML-specific characters may appear as escaped text.
	NOTE: For `-m <worknote>` and —`m <comment>` options, you need **test alert** privilege.
	• `--complete`—Export the complete Lifecycle log as a compressed file. The exported file is of the type `.xml.gz`.
	• `-j<Job ID>`—Specifies the Job ID.

Example	• Display the number of records present in the Lifecycle log.
	`racadm lclog view -i`
	• Display the records containing the string `session`
	`racadm lclog view -k session`
	• Display the iDRAC agent `idrac` records, under the storage category and storage physical disk drive subcategory, with severity set to `warning`.
	`racadm lclog view -a idrac -c storage -b pdr -s warning`
	• Display the records under storage and system categories with severities set to `warning` or `critical`.
	`racadm lclog view -c storage,system -s warning,critical`
	• Display the records having severities set to `warning` or `critical`, starting from sequence number 4.
	`racadm lclog view -s warning,critical -q 4`
	• Display 5 records starting from sequence number 20.
	`racadm lclog view -q 20 -n 5`

Table 54. lclog parameters and options (continued)

lclog	

	• Display all records of events that have occurred between 2024-10-02 23:33:40 and 2024-11-02 00:32:15.
	`racadm lclog view -r "2024-10-02 23:33:40" -e "2024-11-02 00:32:15"`
	• Display all the available records from the active Lifecycle log.
	`racadm lclog view`
	NOTE: If output is not returned when this command is used remotely, then retry increasing the remote RACADM timeout value. To increase the timeout value, run the command `racadm set iDRAC.Racadm.Timeout <value>`. Alternatively, you can retrieve few records.
	• Add a comment to record number 5 in the Lifecycle log.
	`racadm lclog comment edit –q 5 –m "This is a test comment."`
	• Add a worknote to the Lifecycle log.
	`racadm lclog worknote add -m "This is a test worknote."`
	• Export the complete Lifecycle log in GZIP format to a remote FTP share
	`racadm lclog export -f log.xml.gz -u ftppuser -p ftppwd –l ftp://192.168.0.130/share`
	• Export the complete Lifecycle log in GZIP format to a remote TFTP share
	`racadm lclog export -f log.xml.gz tftp://192.168.0.130/`
	• Export the Lifecycle log to a remote FTP share
	`racadm lclog export -f Mylog.xml -u ftppuser -p ftppwd –l ftp://192.168.0.130/share`
	• Export the Lifecycle log to a remote TFTP share
	`racadm lclog export -f Mylog.xml tftp://192.168.0.130/`
	• Export the Lifecycle log to a remote CIFS share.
	`racadm lclog export -f Mylog.xml -u admin -p xxx -l //192.168.0.130/share`
	• Export the complete Lifecycle log in gzip format to a remote CIFS share.
	`racadm lclog export -f log.xml.gz -u admin -p xxx -l //192.168.0.130/share --complete`
	• Export the Lifecycle log to a remote NFS share.
	`racadm lclog export -f Mylog.xml -l 192.168.0.130:/home/lclog_user`
	• Export the Lifecycle log to a local share using Local RACADM.
	`racadm lclog export -f Mylog.xml`
	• Export the complete Lifecycle log in gzip format to a local share using Local RACADM.
	`racadm lclog export -f log.xml.gz --complete`
	• Export the Lifecycle log `lclog` to a local share using Remote RACADM.
	`racadm -r 192.168.0 -u admin -p xxx lclog export -f Mylog.xml`

Table 54. lclog parameters and options (continued)

lclog	

	• Display the status of the specified Job ID with the Lifecycle Controller.
	`racadm lclog viewconfigresult -j JID_123456789012`
	• Export the complete Lifecycle Log in gzip format to a remote HTTP share:
	`racadm lclog export -f log.xml.gz -u httpuser -p httppwd -l http://test.com -port 8080`
	• Export the complete Lifecycle Log in gzip format to a remote HTTPS share
	`racadm lclog export -f log.xml.gz -u httpsuser -p httpspwd -l https://test.com -port 8080`
	• Export the Life Cycle Log to a remote HTTP share
	`racadm lclog export -f Mylog.xml -u httpuser -p httppwd -l http://test.com -port 8080`
	• Export the Life Cycle Log to a remote HTTPS share
	`racadm lclog export -f Mylog.xml -u httpsuser -p httpspwd -l https://test.com -port 8080`

license

Table 55. license parameters and options

License	
Description	Manages the hardware licenses.
Synopsis	• `racadm license view [-c <component>]` • `racadm license import [-f <licensefile>] -l <location> -u <username> -p <password> -c <component> [-o]` • `racadm license import -u <username> -p <password> -f <license file name>\ -l <location> -c <FQDD> [-o]` • `racadm license export -f <license file> [-l <location>] [-u <username>] [-p <password>] -e <ID> -c  <component>` • `racadm license export -u <username> -p <password> -f <license file name>\ -l <location> -t <transaction ID>` • `racadm license export -u <username> -p <password> -f <license file name>\ -l <locaton> -e <entitlement ID>` • `racadm license export -u <username> -p <password> -f <license file name>\ -l <location> -c <FQDD>` • `racadm license delete -t <transaction ID> [-o]` • `racadm license delete -e <entitlement ID> [-o]` • `racadm license delete -c <component> [-o]`
Input	• `view`—View license information. • `import`—Installs a new license.

Table 55. license parameters and options (continued)

License	
	• `export`—Exports a license file. • `delete`—Deletes a license from the system. • `-l <remote share location>` — Network share location from where the license file must be imported. Possible locations are NFS, CIFS, HTTP, HTTPS, FTP, TFTP. If the file is on a shared location, then `-u <share user>` and `-p <share password>` must be used. **NOTE:** Using an invalid or unreachable IP for remote share (HTTP, HTTPS, FTP, TFTP) may not return an error message. • `-f`—Filename or path to the license file • `-e <ID>`—Specifies the entitlement ID of the license file that must be exported. • `-t <ID>` —Specifies the transaction ID. • `-c <component>`—Specifies the component name on which the license is installed. • `-o`—Overrides the End User License Agreement (EULA) warning and imports, replaces, or deletes the license. • `-u`—Username of the system where the file is exported to. • `-p`—Password of the user on the system where the file will be exported. **NOTE:** Only a user with **Server Control** and **Configure iDRAC** privilege can run the `import`, `delete`, and `replace` commands. **NOTE:** For an Export license, you need **Login** and **Configure iDRAC** privilege. **NOTE:** This command supports both IPV4 and IPV6 formats. IPV6 is applicable for CIFS, and NFS type remote shares.

Examples

- View all License Information on System.

```
$racadm license view
```

```
iDRAC.Embedded.1
        Status               = OK
        Device               = iDRAC.Embedded.1
        Device Description   = iDRAC10
        Unique Identifier    = OT05605
                License #1
                        Status               = OK
                        Transaction ID       = 2
                        License Description  = iDRAC10 17G Datacenter Evaluation
License
                        License Type         = EVALUATION
                        Entitlement ID       = 47903PA
                        Expiration           = 2024-11-14T02:00:00
```

- Import a new license to a specific device in a known location.

```
$racadm license import -f license.xml -l //shareip/sharename
-u <share user> -p <share user password> -c idrac.embedded.1
```

- Import a license from a CIFS share to a device, in this case Embedded iDRAC.

```
 racadm license import -u admin -p xxx -f License.xml -l //192.168.0.130/licshare -c
idrac.embedded.1
```

- Import a license from an NFS share to a device, in this case Embedded iDRAC.

```
 racadm license import -f Licen.xml -l 192.168.0.130:/share -c idrac.embedded.1
```

- Import a license from an HTTP share to a device, in this case Embedded iDRAC.

```
 racadm license import -f Licen.xml -u httpuser -p httppswd -l http://test.com -c
idrac.embedded.1
```

- Import a license from an HTTPS share to a device, in this case Embedded iDRAC.

```
 racadm license import -f Licen.xml -u httpsuser -p httpspswd -l https://test.com -c
idrac.embedded.1
```

- Import a license from an FTP share to a device, in this case Embedded iDRAC.

```
 racadm license import -f Licen.xml -u ftpuser -p ftppwd -l ftp://test.com/share -c
idrac.embedded.1
```

- Import a license from a TFTP share to a device, in this case Embedded iDRAC.

```
 racadm license import -f Licen.xml -l tftp://test.com/share -c idrac.embedded.1
```

- Import a license by overriding the EULA warning.

```
racadm license import -u admin -p passwd -f License.xml -l //192.168.0/licshare -c
idrac.embedded.1 -o
```

```
-Import a license from the local filesystem using local racadm: racadm license import
-f License.xml -c idrac.embedded.1
```

```
-Import a license from the local filesystem using remote racadm: racadm license
import -f C:\Mylicdir\License.xml -c idrac.embedded.1
```

- Import a license from the local file system using Local RACADM.

```
 racadm license import -f License.xml -c idrac.embedded.1
```

- Import a license from the local file system using Remote RACADM.

```
 racadm -r 192.168.0.1 -u admin -p xxx license import -f C:\Mylicdir\License.xml -c
idrac.embedded.1
```

- Export a license file.

```
racadm license export -f license.xml -l 192.168.0.130:/share -u uname -p xxx -c
iDRAC.Embedded.1
```

  Instead of `-c`, you can use `-e <ID>` or `-t <ID>`. For Remote RACADM, if the filename is not specified, the files are exported to the directory where RACADM is running.
- Export license to an NFS share using transaction ID, in this case transaction 27.

```
racadm license export -f License.xml -l 192.168.0.130:/licshare
-t 27
```

- Export a license to a CIFS share specifying the entitlement ID, in this case abcdxyz.

```
racadm license export -u admin -p passwd -f License.xml -l //192.168.0.130/licshare
-e abcdxyz
```

```
racadm license export -u httpuser -p httppwd -f License.xml -l http://test.com -e
abcdxyz
```

```
racadm license export -u httpsuser -p httpspwd -f License.xml -l https://test.com -e
abcdxyz
```

```
racadm license export -f License.xml -l tftp://test.com/share -e abcdxyz
```

```
racadm license export -u ftpuser -p ftppwd -f License.xml -l ftp://test.com/share -e
abcdxyz
```

- Export license to a CIFS share specifying the FQDD. While using the `-c` option and exporting a license from a device, more than one license file may be exported. Therefore if a filename is given, an index is appended to the end of the filename such as`LicenseFile0.xml`, `LicenseFile1.xml`. In this case, the device is Embedded iDRAC.

```
racadm license export -u admin -p xxx -f LicenseFile.xml -l //192.168.0.130/licshare
-c idrac.embedded.1
```

```
racadm license export -u httpuser -p httppswd -f LicenseFile.xml -l http://test.com
-c idrac.embedded.1
```

```
racadm license export -u httpsuser -p httpspswd -f LicenseFile.xml -l https://
test.com -c idrac.embedded.1
```

```
racadm license export -f LicenseFile.xml -l tftp://test.com/share -c idrac.embedded.1
```

```
racadm license export -u ftpuser -p ftppwd -f LicenseFile.xml -l ftp://test.com/share
-c idrac.embedded.1
```

- Delete licenses on a particular device, in this case Embedded iDRAC.

```
racadm license delete -c idrac.embedded.1
```

- Delete a license using entitlement ID, in this case xYZabcdefg.

```
racadm license delete -e xYZabcdefg
```

- Delete a license using transaction ID, in this case 2.

```
racadm license delete -t 2
```

netstat

Table 56. netstat command parameters and options

netstat	
Description	Display the routing table and network statistics.
Synopsis	`racadm netstat`
Privilege Required	Debug

Examples

- To display the routing table and network statistics, type the following command:

```
$ racadm netstat
```

networktransceiverstatistics

Table 57. networktransceiverstatistics parameters and options

networktransceiverstatistics	
Description	Displays the statistics for the list of NIC transceivers.
Synopsis	**NOTE:** The target server must have iDRAC Datacenter license to run this command. • `racadm networktransceiverstatistics` • `racadm networktransceiverstatistics <PORT FQDD>` • `racadm networktransceiverstatistics -all`
Input	• `<PORT FQDD>`—fully qualified device descriptor of the NIC • `-all`—for all the available network transceivers

Example	• To display the available network transceivers managed by the server for statistics:
	`racadm networktransceiverstatistics`
	• To display the statistics of the network transceiver specified by NIC.Integrated.1-1-1:
	`racadm networktransceiverstatistics NIC.Integrated.1-1-1`
	• To display the statistics of all the network transceivers managed by the server:
	`racadm networktransceiverstatistics -all`

nicstatistics

Table 58. nicstatistics parameters and options

nicstatistics	
Description	Displays the statistics for the NIC FQDD.
Synopsis	• `racadm nicstatistics` • `racadm nicstatistics <NIC FQDD>` • `racadm hwinventory NIC.Integrated.1-1` **NOTE:** `Partition Driver State` and `Partition OS Driver State` properties are the same for nicstatistics.

Examples

- To display the statistics for the integrated NIC, type the following command:

```
racadm nicstatistics NIC.Integrated.1-1-1
Device Description:                          NIC in Slot 4 Port 1 Partition 1
Total Bytes Received:                        0
Total Bytes Transmitted:                     0
Total Unicast Bytes Received:                0
Total Multicast Bytes Received:              0
```

```
Total Broadcast Bytes Received:                0
Total Unicast Bytes Transmitted:               0
Total Multicast Bytes Transmitted:             0
Total Broadcast Bytes Transmitted:             0
FCS error packets Received:                    0
Alignment error packets Received:              0
False Carrier error packets Received:          0
Runt frames Received:                          0
Jabber error frames Received:                  0
Total Pause XON frames Received:               0
Total Pause XOFF frames Received:              0
Discarded packets:                             0
Single Collision frames Transmitted:           0
Multiple Collision frames Transmitted:         0
Late Collision frames Transmitted:             0
Excessive Collision frames Transmitted:        0
Link Status:                                   Down
OS Driver State:                               Operational
No Partition Statistics found for FQDD "NIC.Slot.4-1-1"
Total RDMA Packets Received:                   0
Total RDMA Packets Transmitted:                0
Total RDMA Bytes Transmitted:                  0
Total RDMA Bytes Received:                     0
Total RDMA Transmitted ReadRequest Packets:    Not Applicable
Total RDMA Transmitted Send Packets:           Not Applicable
Total RDMA Transmitted Write Packets:          Not Applicable
Total RDMA Protocol Errors:                    Not Applicable
Total RDMA Protection Errors:                  Not Applicable
```

NOTE: When Port, Partition or RDMA statistics are not available, the output displays `No Port/Partition/RDMA Statistics found for FQDD <NIC FQDD>`.

- To get the network statistics, type the following command:

```
racadm nicstatistics

NIC.Slot.4-1-1:NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF - E8:EB:D3:F7:CB:98
PartitionCapable :                             Not Capable

NIC.Slot.4-2-1:NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF - E8:EB:D3:F7:CB:99
PartitionCapable :                             Not Capable

NIC.Slot.10-1-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B0
PartitionCapable :                             Disabled

NIC.Slot.10-2-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B1
PartitionCapable :                             Disabled

NIC.Slot.10-3-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B2
PartitionCapable :                             Disabled

NIC.Slot.10-4-1:Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B3
PartitionCapable :                             Disabled
```

pcieslotview

Table 59. pcieslotview parameters and options

pcieslotview	
Description	The pcieslotview subcommand is used to display PCIe slot details.
Synopsis	• racadm pcieslotview • racadm pcieslotview --all • racadm pcieslotview <slot>
Input	• `<slot>` — PCIe slot key.

Table 59. pcieslotview parameters and options (continued)

pcieslotview	
	• `--all` — view details of all the PCIe Slots.

Examples

- To display available PCIe slot keys, run the following command:

```
racadm>>pcieslotview
PCIe.Slot.10#SysSlot
PCIe.Slot.4#SysSlot
PCIe.Slot.7#SysSlot
PCIe.Slot.9#SysSlot
PCIe.Slot.2#SysSlot
PCIe.Slot.3#SysSlot
```

- To display details of all the PCIe Slots, run the following command:

```
racadm>>pcieslotview --all
Slot                : PCIe.Slot.10#SysSlot
Populated           : Yes
State               : Enabled
Hot Pluggable       : False
Slot Type           : Unknown
PCIe Type           : OCP3Small
Lanes               : 16
CPU Affinity        : 0
----------------------------------------------------------
Slot                : PCIe.Slot.4#SysSlot
Populated           : Yes
State               : Enabled
Hot Pluggable       : False
Slot Type           : Unknown
PCIe Type           : OCP3Small
Lanes               : 16
CPU Affinity        : 1
----------------------------------------------------------
Slot                : PCIe.Slot.7#SysSlot
Populated           : No
State               : Enabled
Hot Pluggable       : False
Slot Type           : HalfLength
PCIe Type           : Gen5
Lanes               : 16
CPU Affinity        : 0
----------------------------------------------------------
Slot                : PCIe.Slot.9#SysSlot
Populated           : No
State               : Enabled
Hot Pluggable       : False
Slot Type           : HalfLength
PCIe Type           : Gen5
Lanes               : 16
CPU Affinity        : 0
----------------------------------------------------------
Slot                : PCIe.Slot.2#SysSlot
Populated           : No
State               : Enabled
Hot Pluggable       : False
Slot Type           : HalfLength
PCIe Type           : Gen5
Lanes               : 16
CPU Affinity        : 1
----------------------------------------------------------
Slot                : PCIe.Slot.3#SysSlot
Populated           : No
State               : Enabled
Hot Pluggable       : False
Slot Type           : HalfLength
PCIe Type           : Gen5
```

```
Lanes                : 16
CPU Affinity         : 1
-------------------------------------------------------------
```

- To display details of a specific PCIe slot, run the following command:

```
racadm>>pcieslotview PCIeSSD.BaySlot.4:1#SysSlot
Slot                 : PCIe.Slot.3#SysSlot
Populated            : No
State                : Enabled
Hot Pluggable        : False
Slot Type            : HalfLength
PCIe Type            : Gen5
Lanes                : 16
CPU Affinity         : 1
-------------------------------------------------------------
```

ping

Table 60. ping command parameters and options

ping	
Description	Verifies if the destination IP address is reachable from iDRAC with the current routing-table contents. A destination IP address is required. Based on the current routing-table contents, an ICMP echo packet is sent to the destination IP address. To run this subcommand, you must have the **Debug** privilege.
Synopsis	`racadm ping <ipaddress>`
Input	`<ipaddress>`—The IP address of the remote endpoint to ping.

Output	`PING 192.168.0.120: 56 data bytes64 bytes from 192.168.0: seq=0 ttl=64 time=4.121 ms`
	`192.168.0.120 ping statistics`
	`1 packets transmitted, 1 packets received, 0 percent packet lossround-trip min/avg/max = 4.121/4.121/4.121 ms`

ping6

Table 61. ping6 command parameters and options

ping6	
Description	Verifies if the destination IPv6 address is reachable from iDRAC or with the current routing-table contents. A destination IPv6 address is required. Based on the current routing-table contents, an ICMP echo packet is sent to the destination IPv6 address. To run this subcommand, you must have **Debug** privilege.
Synopsis	`racadm ping6 <ipv6address>`
Input	`<ipv6address>` — the IPv6 address of the remote endpoint to ping.

Example	`Pinging 2024:de11:bdc:194::31 from 2024:de11:bdc:194::101 with 32 bytes of data:`
	`Reply from 2024:de11:bdc:194::31: time<1ms`
	`Reply from 2024:de11:bdc:194::31: time<1ms`
	`Reply from 2024:de11:bdc:194::31: time<1ms`
	`Reply from 2024:de11:bdc:194::31: time<1ms`
	
	`Ping statistics for 2024:de11:bdc:194::31:`
	`Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),`

Table 61. ping6 command parameters and options (continued)

ping6	
	`Approximate round trip times in milli-seconds:` `Minimum = 0ms, Maximum = 0ms, Average = 0ms`

plugin

Table 62. plugin command parameters and options

RACADM Plugin	
Description	The plugin subcommand allows you to perform operations on various plugins.
Synopsis	• racadm plugin view • racadm plugin view --all • racadm plugin view <FQDD> • racadm plugin enable <FQDD> • racadm plugin disable <FQDD> • racadm plugin restart <FQDD> • racadm plugin uninstall <FQDD>
Input	• <FQDD>—Specifies the fully qualified device descriptor of the plugin. • `--all` —Specifies details of all plugins.

Example	To restart the plugin by FQDD:
	`racadm plugin restart Plugin.Integrated.INT.000`
	To enable the plugin by FQDD
	`racadm plugin enable Plugin.Integrated.INT.000`
	To disable the plugin by FQDD
	`racadm plugin disable Plugin.Integrated.INT.000`
	To uninstall the plugin by FQDD
	`racadm plugin uninstall Plugin.Integrated.INT.000`
	To view the available plugins
	`racadm plugin view`
	To view the specific plugin details by FQDD
	`racadm plugin view Plugin.Integrated.INT.000`
	To display details of all the plugins
	`racadm plugin view --all`

racadm proxy

Table 63. racadm proxy command parameters and options

RACADM Proxy	
Description	On the PowerEdge FX2/FX2s systems, you can manage the compute sleds and CMC using the iDRAC's RACADM Proxy feature that redirects commands from iDRAC to CMC. You can return the CMC response to local or remote RACADM.to access the CMC configuration and reporting features without placing the CMC on the management network. The CMC configuration commands are supported through local proxy when local configuration is enabled on iDRAC. **NOTE:** Local racadm and local racadm proxy runs with root user privilege.

Synopsis	Local RACADM proxy usage
	`racadm <CMC racadm subcommand> --proxy`
	Remote RACADM proxy usage
	`racadm <CMC racadm subcommand> -u <username> -p <password> -r <idrac-ip connected to cmc> --proxy`
	NOTE:
	• The attribute `racadm get -g cfgractuning -o cfgRacTuneChassisMgmtAtServer` must be set as non-zero in CMC.
	• The attribute `racadm get system.ChassisControl.ChassisManagementMonitoring` attribute must be enabled in iDRAC.
	• `--proxy` must be entered at the end of the command.
	• The root privilege is the default privilege for Local RACADM proxy.
	• The user privilege in the Remote RACADM proxy for CMC maps to iDRAC privilege.

Input	• `-u` — Specifies the user name of the remote share that stores the catalog file.

Table 64. Details of CMC and iDRAC privilege for an operation

Required CMC Privilege for an operation	Required iDRAC Privilege for proxy operation
CMC Login User	Login
Chassis Configuration Administrator	Configure
User Configuration Administrator	Configure User
Clear Logs Administrator	Logs
Chassis Control Administrator	System Control
Server Administrator	System Control
Test Alert User	System Operations
Debug Command Administrator	Debug
Fabric x Administrator (where x is A, B, or C)	System Control

• When CMC is not placed on the network, the import, export, and file operation commands to CIFS, NFS, or FTP will fail.
• When the Remote or Local RACADM Proxy operation is in progress, if the iDRAC is reset, then the Proxy operation fails and the output is not displayed in Remote or Local RACADM.
• When racadm `getsystem.ChassisControl.ChassisManagementMonitoring` attribute is set to `monitor`, all the users including root users can only view the attribute. To configure, set the attribute to `monitor and manage` in CMC.

Table 63. racadm proxy command parameters and options (continued)

RACADM Proxy	
	• `-p` — Specifies the password of the remote share that stores the catalog file. • `-r` — Specifies the iDRAC IP address connected to CMC.

Example	Local RACADM
	`racadm getractime --proxy`
	Remote RACADM
	`racadm getractime -u root -p xxx -r 192.168.0.130 getractime --proxy`

racdump

Table 65. racdump command parameters and options

racdump	
Description	Provides a single command to get dump, status, and general iDRAC board information. To run this subcommand, you must have the Debug permission. • General System/RAC Information • Coredump Information • Network Interface Statistics • Session Information • Process Information • RAC Firmware Build Log **NOTE:** The RAC debug logs are not part of Local and Remote RACADM. It is available only on Firmware RACADM.
Synopsis	`racadm racdump`
Input	N/A

Example

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

RAC Information:
RAC Date/Time           = Sat Nov  2 07:01:27 2024

Firmware Version        = 1.10.05.00
Firmware Build          = 66
Last Firmware Update    = 10/28/2024 08:38:01
Hardware Version        = 0.01
MAC Address             = 6c:3c:8c:8c:6c:ae
SVC Tag                 = OT05605

Common settings:
Register DNS RAC Name   = Disabled
DNS RAC Name            = idrac-OT05605
Current DNS Domain      = ept.adc.delllabs.net
Domain Name from DHCP   = Enabled

IPv4 settings:
Enabled                 = Enabled
Current IP Address      = 100.65.214.120
Current IP Gateway      = 100.65.214.254
Current IP Netmask      = 255.255.255.0
DHCP Enabled            = Enabled
```

```
Current DNS Server 1    = 100.64.0.111
Current DNS Server 2    = 10.228.254.66
Current DNS Server 3    = 0.0.0.0
DNS Servers from DHCP   = Enabled

IPv6 settings:
Enabled                 = Enabled
Current IP Address 1    = 2607:f2b1:f001:197:ba8:841f:91de:33a0/64
Current IP Gateway      = fe80::201:e8ff:fed8:f1b4
Autoconfig              = Enabled
Link Local IP Address   = fe80::dbad:cb50:733e:2568/64
Link Location Prefix Length = 64
Current IP Address 2    = ::
Current IP Address 3    = ::
Current IP Address 4    = ::
Current IP Address 5    = ::
Current IP Address 6    = ::
Current IP Address 7    = ::
Current IP Address 8    = ::
Current IP Address 9    = ::
Current IP Address 10   = ::
Current IP Address 11   = ::
Current IP Address 12   = ::
Current IP Address 13   = ::
Current IP Address 14   = ::
Current IP Address 15   = ::
DNS Servers from DHCPv6 = Enabled
Current DNS Server 1    = 2607:f2b1:f000::111/64
Current DNS Server 2    = ::
Current DNS Server 3    = ::

System Information:
System Model            = PowerEdge R770
System Revision         = I
System BIOS Version     = 1.1.3
Service Tag             = OT05605
Express Svc Code        = 53996536229
Host Name               =
OS Name                 =
OS Version              =
Power Status            = ON
Fresh Air Capable       = Yes
RollupStatus            = Ok
Watchdog Information:
Recovery Action         = None
Present countdown value =  seconds
Initial countdown value =  seconds

System Thermal Information:
EstimatedSystemAirflow  =  123 CFM
EstimatedExhaustTemperature =  28 Degrees Centigrade

Embedded NIC MAC Addresses:


================================================================================
 Coredump Information
================================================================================
<size>  <date & time>             <name>
1448     Oct 17 16:57   core.1.10.60.05.00.P6-POW_INV_TASK.80878.gz
1449     Oct 17 16:54   core.1.10.60.05.00.P6-POW_INV_TASK.80327.gz
1449     Oct 16 15:51   core.1.10.60.05.00.P6-POW_INV_TASK.17889.gz
980      Oct 16 15:51   core.1.10.60.05.00.thermald.7799.gz
1455     Oct 17 16:55   core.1.10.60.05.00.P6-POW_INV_TASK.80586.gz
1485     Oct 17 16:54   core.1.10.60.05.00.P6-POW_INV_TASK.70815.gz
2486     Oct 23 11:06   core.1.10.64.05.00.DISP.555787.gz
2016     Oct 22 14:50   core.1.10.64.05.00.DISP.6938.gz
2106     Oct 22 10:16   core.1.10.64.05.00.DISP.6863.gz
2107     Oct 22 14:22   core.1.10.64.05.00.DISP.7688.gz
2099     Oct 21 08:08   core.1.10.64.05.00.DISP.6919.gz
2106     Oct 24 18:02   core.1.10.64.05.00.DISP.6876.gz
2487     Oct 23 11:26   core.1.10.64.05.00.DISP.580146.gz
2482     Oct 23 11:17   core.1.10.64.05.00.DISP.569720.gz
```

```
2108      Oct 22 09:49   core.1.10.64.05.00.DISP.7730.gz
2516      Oct 23 10:48   core.1.10.64.05.00.DISP.13709.gz
613       Mar  3 03:50   core.1.10.60.05.00.bpcore.7802.gz
1451      Oct 16 15:50   core.1.10.60.05.00.P6-POW_INV_TASK.17536.gz
1448      Oct 17 16:56   core.1.10.60.05.00.P6-POW_INV_TASK.80702.gz
1457      Oct 17 16:33   core.1.10.60.05.00.P6-POW_INV_TASK.70721.gz
1184      Oct 17 16:32   core.1.10.60.05.00.P6-POW_INV_TASK.7852.gz
1415      Oct 16 15:49   core.1.10.60.05.00.P6-POW_INV_TASK.6901.gz
2120      Oct 21 08:20   core.1.10.64.05.00.DISP.6965.gz
1446      Oct 16 15:50   core.1.10.60.05.00.P6-POW_INV_TASK.17714.gz
1448      Oct 17 16:57   core.1.10.60.05.00.P6-POW_INV_TASK.80797.gz
1152      Oct 16 15:52   core.1.10.60.05.00.thermald.17986.gz
967       Oct 17 16:33   core.1.10.60.05.00.thermald.9456.gz

================================================================================
 Network Interface Statistics
================================================================================
Kernel IPv6 routing table
Destination                    Next Hop                   Flag Met Ref  Use If
localhost/128                  [::]                       Un   0   7      0 lo
localhost/128                  [::]                       U    256 1      0 lo
2607:f2b1:f001:197:ba8:841f:91de:33a0/128 [::]                        Un   0   2      0
nic1
2607:f2b1:f001:197::/64        [::]                       UAe  256 1      0 nic1
fe80::dbad:cb50:733e:2568/128  [::]                       Un   0   4      0 nic1
fe80::/64                      [::]                       U    256 1      0 nic1
ff00::/8                       [::]                       U    256 6      0 nic1
[::]/0                         fe80::201:e8ff:fed8:f1b4   UGDAe 1024 2      0 nic1


Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  irtt Iface
0.0.0.0         100.65.214.254  0.0.0.0         UG        0 0          0 nic1
100.65.214.0    0.0.0.0         255.255.255.0   U         0 0          0 nic1


Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 100.65.214.120:22       10.107.28.83:52693      ESTABLISHED
tcp        0      0 127.0.0.1:5556          127.0.0.1:52670         ESTABLISHED
tcp        0      0 127.0.0.1:5556          127.0.0.1:52648         ESTABLISHED
tcp        0      0 127.0.0.1:5556          127.0.0.1:52654         ESTABLISHED
tcp        0      0 127.0.0.1:52672         127.0.0.1:5556          ESTABLISHED
tcp        0      0 127.0.0.1:52648         127.0.0.1:5556          ESTABLISHED
tcp        0      0 127.0.0.1:8745          127.0.0.1:50740         ESTABLISHED
tcp        0      0 127.0.0.1:54732         127.0.0.1:8745          ESTABLISHED
tcp        0      0 127.0.0.1:5556          127.0.0.1:52672         ESTABLISHED
tcp        0      0 127.0.0.1:52654         127.0.0.1:5556          ESTABLISHED
tcp        0      0 127.0.0.1:50740         127.0.0.1:8745          ESTABLISHED
tcp        0      0 127.0.0.1:8745          127.0.0.1:54732         ESTABLISHED
tcp        0      0 127.0.0.1:52670         127.0.0.1:5556          ESTABLISHED


================================================================================
 Session Information
================================================================================
SSNID                                    Type
User                                          IP Address Login Date/Time
--------------------------------------------------------------------------------
----------------------------------------
421690c0-33bf-495b-b014-0f754d318d1f    SSH
root                                        10.107.28.83 2024-11-02 05:05:19

================================================================================
 Process Information
================================================================================
    PID TTY      STAT   TIME COMMAND
      1 ?        Ss   215:56 systemd
      2 ?        S      0:06 kthreadd
      3 ?        I<     0:00 rcu_gp
      4 ?        I<     0:00 rcu_par_gp
      8 ?        I<     0:00 mm_percpu_wq
      9 ?        S      0:00 rcu_tasks_kthre
```

```
     10 ?        S      1:31 ksoftirqd/0
     11 ?        I      8:47 rcu_preempt
     12 ?        S      0:04 migration/0
     14 ?        S      0:00 cpuhp/0
     15 ?        S      0:00 cpuhp/1
     16 ?        S      0:04 migration/1
     17 ?        S      1:20 ksoftirqd/1
     20 ?        S      0:00 cpuhp/2
     21 ?        S      0:04 migration/2
     22 ?        S      1:21 ksoftirqd/2
     25 ?        S      0:00 cpuhp/3
     26 ?        S      0:04 migration/3
     27 ?        S      1:20 ksoftirqd/3
     30 ?        S      0:00 kdevtmpfs
     31 ?        I<     0:00 netns
     45 ?        S      0:05 kauditd
    479 ?        S      0:02 khungtaskd
    502 ?        S      0:00 oom_reaper
    503 ?        I<     0:00 writeback
    505 ?        S      1:08 kcompactd0
    541 ?        I<     0:00 kblockd
    542 ?        I<     0:00 blkcg_punt_bio
    549 ?        I<     0:00 tpm_dev_wq
    576 ?        I<     0:00 edac-poller
    592 ?        S      0:00 watchdogd
    677 ?        I<     0:00 rpciod
    678 ?        I<     0:00 kworker/u9:0-xprtiod
    679 ?        I<     0:00 xprtiod
    698 ?        S      0:13 kswapd0
    700 ?        I<     0:00 nfsiod
   1270 ?        S      0:30 hwrng
   1405 ?        S      4:03 irq/22-nuvoton-
   1409 ?        S      0:00 irq/23-nuvoton-
   1450 ?        S      0:25 spi0
   1487 ?        I<     0:00 bond0
   1552 ?        I<     0:00 stmmac_wq
   1576 ?        I<     0:00 stmmac_wq
   1688 ?        I<     0:00 dm_bufio_cache
   1697 ?        I<     0:00 sdhci
   1698 ?        S      0:00 irq/19-mmc0
   1754 ?        I<     0:00 ipv6_addrconf
   1761 ?        I<     0:00 mmc_complete
   1860 ?        I<     0:00 ext4-rsv-conver
   1882 ?        SN     2:05 dm-verityd
   1885 ?        S<     0:01 loop0
   1887 ?        S<     0:07 loop1
   1889 ?        S<     0:00 loop2
   1893 ?        I<     0:00 kdmflush
   1894 ?        I<     0:00 kverityd
   2182 ?        Ss   663:50 systemd-journal
   2195 ?        I<     0:00 cifsiod
   2197 ?        I<     0:00 smb3decryptd
   2198 ?        I<     0:00 cifsfileinfoput
   2199 ?        I<     0:00 cifsoplockd
   2211 ?        S      0:00 msg_thread_1
   2217 ?        S      0:00 msg_thread_2
   2222 ?        S      0:00 msg_thread_3
   2226 ?        S      0:00 msg_thread_5
   2230 ?        S      0:00 irq/83-gpiodev
   2231 ?        S      0:00 irq/84-gpiodev
   2235 ?        D      0:00 RecoveryThread!
   2714 ?        Ss     0:19 systemd-udevd
   2884 ?        I<     0:00 CTL37
   2886 ?        I<     0:00 LOGREG
   2935 ?        S      0:01 jbd2/mmcblk0p8-
   2936 ?        I<     0:00 ext4-rsv-conver
   2940 ?        S      0:08 jbd2/mmcblk0p3-
   2941 ?        I<     0:00 ext4-rsv-conver
   2968 ?        SN     0:59 jffs2_gcd_mtd5
   2970 ?        S<sl   0:26 auditd
   2991 ?        Ss     0:00 sh
   2992 ?        S      0:27 tail
   2993 ?        S      0:05 grep
```

```
   4565 ?        S<     0:00 loop3
   4576 ?        I<     0:00 kdmflush
   4587 ?        I<     0:00 kcryptd_io/254:
   4588 ?        I<     0:00 kcryptd/254:1
   4590 ?        S      0:00 dmcrypt_write/2
   5789 ?        S      0:00 jbd2/dm-1-8
   5790 ?        I<     0:00 ext4-rsv-conver
   5846 ?        Ss     0:06 systemd-resolve
   5872 ?        SN     0:20 jffs2_gcd_mtd0
   5948 ?        S<     0:00 loop4
   5963 ?        S<     0:00 loop5
   5965 ?        I<     0:00 ext4-rsv-conver
   6048 ?        Ss     0:00 dbus-broker-lau
   6051 ?        S    295:29 dbus-broker
   6053 ?        Ss     0:00 bp_update_statu
   6055 ?        Ss     0:00 crashdump
   6057 ?        Ss     0:00 cores-rotate.sh
   6066 ?        Ss     0:00 dbus_simu_srv
   6070 ?        Ssl    0:10 dcmgr
   6071 ?        Ss     0:00 evmd
   6078 ?        Ss     0:22 frud
   6095 ?        Ss     0:03 halpincfgd
   6098 ?        Ss     0:00 hbwd
   6099 ?        Ss     0:12 healthmgrd
   6100 ?        Ss     0:10 imonlogcollecto
   6105 ?        Ssl   13:18 mctpdaemon
   6123 ?        Ss     0:00 multipart
   6124 ?        Ssl    1:05 nonrootsupportd
   6155 ?        Ssl    6:20 mppd
   6159 ?        Ss     2:49 systemd-logind
   6161 ?        Ss     1:53 fru-device
   6179 ?        Ss    53:45 mapperx
   6186 ?        Ssl    0:01 bp-updater
   6187 ?        Ss     0:00 swinventory
   6188 ?        Ssl    3:31 jdaemon
   6191 ?        Ss     0:00 post-code-manag
   6197 ?        Ssl    0:17 armtotipservice
   6199 ?        Ss     0:23 certmgr
   6204 ?        Ss     0:00 securityservice
   6214 ?        SNs    0:12 fid
   6217 ?        S      0:00 inotifywait
   6237 ?        Ssl    0:17 aim
   6269 ?        S      0:08 aim
   6274 ?        Ss     0:08 ipmi_gateway
   6279 ?        Ss     0:00 snoopd
   6305 ?        Ssl    4:51 smad
   6370 ?        SLl   20:21 ciam-service
   6385 ?        Ss     0:00 platform
   6393 ?        Ss    49:35 entity-manager
   6400 ?        Ss     0:00 dpmgmt
   6407 ?        Ss     0:38 DellMCUFWupdate
   6411 ?        Ss     0:10 SDRDataCacheSer
   6416 ?        Ss     8:03 logmgrd
   6422 ?        Ss     0:00 smbiosmdrv2app
   6463 ?        Ss     0:14 devicemap
   6534 ?        Ssl    3:22 easyrestore
   6611 ?        Ssl   30:30 cfgmgrd
   6948 ?        Ssl   14:48 ciam-dbus-servi
   6957 ?        Ssl    0:00 cpldrecoveryd
   6958 ?        Ssl    0:00 depotd
   6960 ?        Ssl    4:05 lmd
   6964 ?        Ss     0:07 osinet
   6971 ?        Ssl    1:32 policyd
   6975 ?        Ss     0:13 dellpostcoded
   6977 ?        Ss     0:00 red
   6978 ?        Ssl    0:55 ddd
   6990 ?        Ss     0:00 power-control.s
   7006 ?        Ssl    5:24 os
   7007 ?        Ssl  121:54 dsm_sa_datamgrd
   7026 ?        Ssl   28:24 usb_app
   7050 ?        Ssl    4:08 dnetd
   7053 ?        Ss     0:00 usbportd
   7056 ?        Sl    11:35 power-control
```

```
   7068 ?        Ssl    3:35 lclpop
   7101 ?        Ssl    0:08 bossauthd
   7114 ?        Ssl    3:18 cpldauthd
   7122 ?        Ss     0:00 fpgaversionsync
   7123 ?        Z      0:00 systemctl
   7125 ?        Ssl    0:00 biosrecoveryd
   7156 ?        Ssl    2:56 pldmpop
   7174 ?        Ss     0:06 systemd-network
   7181 ?        Ssl   21:12 vmedia
   7254 ?        Ssl   96:23 mctpd
   7263 ?        Ssl    5:55 spdmd
   7268 ?        Ssl   12:10 storelibd
   7324 ?        Ssl    2:46 pluginpop
   7407 ?        Ssl    0:00 mrcached
   7412 ?        Ss     0:00 snmptrapd
   7415 ?        Ss     0:02 phosphor-networ
   7442 tty1     Ss+    0:00 agetty
   7486 ?        Ssl    0:00 fmgr
   7521 ?        Ssl    3:44 maserserver
   7558 ?        Ssl    0:17 ekmsclientd
   7559 ?        Ssl    0:00 certcheckd
   7564 ?        Ssl    0:18 voss_km_service
   7608 ?        Ssl  423:22 rsyslogd
   7655 ?        I<     0:00 usbpt
   7695 ?        Z      0:00 systemctl
   7705 ?        Z      0:00 systemctl
   7706 ?        Z      0:00 systemctl
   7707 ?        Z      0:00 systemctl
   7724 ?        Ss     0:00 sshd
   7738 ?        Ssl  116:51 fb_source
   7740 ?        Ssl  130:38 fb_vnc_server
   7742 ?        Ss     0:00 ffmpeg_concat
   7743 ?        Ssl    0:44 rfs_unmount
   7744 ?        Ss     0:00 vnc_oom_monitor
   7755 ?        Z      0:00 systemctl
   7758 ?        S      0:03 dhcpcd
   7764 ?        Ss   155:36 avahi-daemon
   7802 ?        S      0:00 avahi-daemon
   7831 ?        Ss    11:53 MiscSensorServi
   7832 ?        Ss     6:56 PGSensorService
   7833 ?        Ssl   19:25 bpcore
   7834 ?        Ssl    3:13 cfgval
   7835 ?        Ss    17:53 fand
   7837 ?        Ssl  118:15 SoftTimer
   7838 ?        Ssl  466:31 platd
   7839 ?        Ssl  2456:04 powerd
   7840 ?        Ss    17:53 thermalsensord
   7898 ?        Ssl  377:41 metric-engine
   7904 ?        Ssl    3:10 biosauthd
   7915 ?        Ssl   62:13 fplcd
   7981 ?        Ssl    0:02 commonfactory
   7982 ?        Ssl  158:39 thermald
   7993 ?        Ss     0:00 design4diagd
   7994 ?        Ssl    0:16 email_testtrap_
   8000 ?        Ssl    0:15 pm
   8032 ?        Ssl    0:09 tm
   8034 ?        Ssl    0:00 sfcbd
   8036 ?        S      0:00 sfcbd
   8037 ?        S      0:00 sfcbd
   8094 ?        Sl    24:26 ipmiextd-real
   8102 ?        Ssl    1:06 ntpd
   8120 ?        Ssl    4:36 cfgpop
   8138 ?        Ssl   53:21 ienvpop
   8181 ?        Ss     0:30 httpd
   8182 ?        S      0:00 httpd
   8183 ?        Ssl    3:54 fcgi-auth
   8184 ?        Ss     0:00 hasses
   8227 ?        Ssl   22:05 oauthd
   8228 ?        Ssl  108:58 hwipop
   8261 ?        Ssl    2:56 jcpop
   8267 ?        Sl    19:23 tm_ntpd_monitor
   8276 ?        Ssl    3:42 reutlpop
   8299 ?        Ssl    2:48 cmpop
```

```
   8343 ?        Ssl  257:55 dsm_sa_snmpd
   8344 ?        Ssl  108:47 hiipop
   8370 ?        Ssl   37:32 raidpop
   8378 ?        Z      0:00 systemctl
   8379 ?        Ssl  116:43 nodediscd
   8410 ?        Ssl    4:40 sapop
   8508 ?        Ssl    8:52 pupop
   8796 ?        Ssl    0:06 ephemeral
   8815 ?        Ss     0:01 lldpd
   8825 ?        S      0:13 lldpd
   8827 ?        Ss     2:02 mut_collect_nig
   8865 ?        Ss     0:00 smartlogs_night
   8905 ?        Ssl    0:50 updsrvd_biosupd
   8989 ?        Ssl  419:58 unified_databas
   9114 ?        Ssl    0:18 boss_km_service
   9124 ?        Ssl    2:50 cmpiappservice
   9221 ?        Ssl    3:18 recmand
   9239 ?        Ssl   32:24 hashapp
   9244 ?        Ss     1:33 raclogd
   9258 ?        Ssl    7:41 dsm_sa_eventmgr
   9269 ?        Ssl  111:31 scvInventorySer
   9345 ?        Ssl    9:06 fcgiodata
   9359 ?        Ssl    3:49 fcgiodata
   9360 ?        Ssl    0:57 nvme_km_service
   9393 ?        Ss   371:55 redfisheventser
   9528 ?        Ss     5:56 ranni
   9555 ?        Ssl    0:44 fcgiresponder
   9770 ?        Ssl   22:39 updsrvd
   9793 ?        Ssl    0:45 cpld_update
   9795 ?        Ssl  256:01 flopcpldupd
   9798 ?        Ssl    1:17 pldmfwupdate
   9804 ?        Ssl    1:59 seriald
   9808 ?        Ssl    0:45 updsrvd_bmcupd
  13676 ?        Ssl   18:22 idracmonitor
  15720 ?        Ssl    3:11 fcgi-auth-mut
  32054 ?        I<     0:00 kworker/u9:1-xprtiod
 451702 ?        Ssl   12:51 fcgi-rds
 886253 ?        Ssl    0:00 fcgi-racadm
1053966 ?        Sl     3:06 httpd
2547381 ?        Ss     0:00 rpcbind
2772208 ?        I<     0:02 kworker/1:0H-kblockd
2786883 ?        I<     0:01 kworker/3:1H-kblockd
2789418 ?        I<     0:01 kworker/2:1H-kblockd
2833585 ?        I<     0:00 kworker/3:2H
2843623 ?        I<     0:00 kworker/0:0H
2960694 ?        I<     0:00 kworker/1:2H
2963301 ?        S      0:00 sleep
3074152 ?        I      0:00 kworker/1:2-mm_percpu_wq
3082886 ?        I<     0:00 kworker/2:2H
3093695 ?        I<     0:00 kworker/0:1H-mmc_complete
3096164 ?        Ss     0:00 sshd
3096178 ?        S      0:03 sshd
3096212 pts/0    Ssl+   0:00 racadmACShell
3109527 ?        I      0:00 kworker/3:1-mm_percpu_wq
3133401 ?        I      0:01 kworker/0:2-cgroup_destroy
3135928 ?        I      0:00 kworker/2:1-events_freezable_power_
3138231 ?        I      0:00 kworker/u8:1-kverityd
3143697 ?        I      0:00 kworker/0:1-fff11000.i3c
3144435 ?        I      0:00 kworker/3:2-rcu_gp
3144593 ?        I      0:00 kworker/u8:0-events_unbound
3144676 ?        I      0:00 kworker/1:1-events
3144775 ?        I      0:00 kworker/2:3-mm_percpu_wq
3146606 ?        I      0:00 kworker/0:0-cgroup_destroy
3146772 ?        I      0:00 kworker/3:0-cgroup_destroy
3146884 ?        I<     0:00 kworker/0:2H-kblockd
3146954 ?        I      0:00 kworker/1:0-cgroup_destroy
3147024 ?        I      0:00 kworker/u8:2-events_unbound
3147044 ?        I      0:00 kworker/2:0-mm_percpu_wq
3147084 ?        I      0:00 kworker/u8:3
3147173 ?        S      0:00 sleep
3147176 pts/0    Sl+    0:01 racadm-real
3147199 pts/0    R+     0:00 ps
```

```
================================================================================
 RAC Firmware Build Log
================================================================================
BLD_TAG=idracfw_bldtag_1.10.05.00_241026_1015_54
BLD_VERSION=1.10.05.00
BLD_NUMBER=1.10.05.00.10936
BLD_DATE=24.10.26
BLD_TYPE=idrac
BLD_KERNEL=ZIMAGE
```

racreset

Table 66. racreset command parameters and options

racreset	
Description	Resets iDRAC. The reset event is logged in the iDRAC log. To run this subcommand, you must have the Configure iDRAC permission and configure user privilege. **NOTE:** After you run the `racreset` subcommand, iDRAC may require up to two minutes to return to a usable state.

Synopsis	`racadm racreset soft`
	`racadm racreset hard`
	`racadm racreset soft -f`
	`racadm recreset hard -f`

Input	• `-f` — This option is used to force the reset.
Output	`racadm racreset` `RAC reset operation initiated successfully. It may take up to a minute for the RAC to come online again.`
Example	• iDRAC reset `racadm racreset`

racresetcfg

Table 67. racresetcfg command parameters and options

racresetcfg	
Description	Deletes your current iDRAC configuration and resets iDRAC to the factory default settings based on the options provided. If you run `racresetcfg` from a network client for example, a supported web browser, SSH, or Remote RACADM), use the default IP address which is 192.168.0.120. The `racresetcfg` subcommand does not reset the **cfgDNSRacName** object. To run this subcommand, you must have the `Configure iDRAC` privilege and `Configure User` privilege. **NOTE:** Certain firmware processes must be stopped and restarted to complete the reset to defaults. iDRAC becomes unresponsive for about 30 s while this operation completes.

Table 67. racresetcfg command parameters and options (continued)

racresetcfg	
Synopsis	• RAC reset operation initiated successfully. It may take several minutes for the RAC to come online again. `racadm racresetcfg` • `racadm racresetcfg -f` • `racadm racresetcfg [-all]` • `racadm racresetcfg [-rc]`
Input	• `-f`—Force `racresetcfg`. • `-all`—Discard all settings and reset user to shipping value. • `-rc`—Discard all settings and reset the user to the default username and password. **NOTE:** When you perform `racresetcfg -rc` on Stomp and Noble/VRTX servers, by default, the DHCP is disabled.

Example	• Reset the configuration on iDRAC.
	`racadm racresetcfg`
	The RAC configuration has initiated restoration to factory defaults. Wait up to a minute for this process to complete before accessing the RAC again.
	• Reset all iDRACs configurations to default, and preserve the user and network settings.
	`racadm racresetcfg -f`
	• Reset all iDRACs configurations to default, and reset the user to shipping value.
	`racadm racresetcfg -all`
	• Reset all iDRACs configurations to default, and reset the user to root/calvin.
	`racadm racresetcfg -rc`

recover

Table 68. recover command parameters and options

Recover sub-command	
Description	Allows you to recover the previous version of the firmware. **NOTE:** To run this subcommand, you must have the Server Control privilege.
Synopsis	To recover the BIOS firmware: `racadm recover <FQDD>` **NOTE:** BIOS.Setup.1-1 is the supported FQDD. CPLD.Embedded.1 is the supported FQDD. NIC Device FQDD is supported.
Input	`FQDD`— Specify the FQDD of the device for which the recovery is required.

Table 68. recover command parameters and options (continued)

Recover sub-command	

Examples	To recover the BIOS firmware:
	`racadm recover BIOS.Setup.1-1`
	To recover the CPLD firmware:
	`racadm recover CPLD.Embedded.1`
	To recover the NIC firmware:
	`racadm recover NIC.Integrated.1-2-1`
	RAC1234: Recovery operation initiated successfully. Check the Lifecycle logs for the status of the operation by running the RACADM command `racadm lclog view`.

remoteimage

Table 69. remoteimage command parameters and options

remoteimage	
Description	Connects, disconnects, or deploys either a media file or directory on a remote server. **NOTE:** Attach directory feature is only supported on 15th generation and later PowerEdge servers. To run this subcommand, you must log in with virtual media privilege for iDRAC.
Synopsis	• `racadm remoteimage -d` • `racadm remoteimage -s` • `racadm remoteimage -c [-u <username> -p <password> -l <image_path>]`

Input	• `-c`—Connect the image.
	• `-d`—Disconnect image.
	• `-u`—User name to access the shared folder.
	• `-p`—Password to access a shared folder.
	• `-l` —Image location on the network share; use single quotation marks around the location.
	• `-s` —Display status.
	NOTE: Use a forward slash (/) when providing the image location. If backward slash (\) is used, override the backward slash for the command to run successfully. For example:
	`racadm remoteimage -c -u user -p xxx -l /\/\192.168.0.130/\CommonShare/\diskette`
	NOTE: The following options only apply to connect and deploy actions.
	• `-u` —Username. User name to access the network share. For domain users, you can use the following formats:
	  ○ domain/user
	  ○ domain\user
	  ○ user@domain
	• `-p` —Password to access the network share.

Example	• Disable Remote File Sharing. • `racadm remoteimage -d Disable Remote File Started. Please check status using -s option to know Remote File Share is ENABLED or DISABLED.`

Table 69. remoteimage command parameters and options (continued)

remoteimage	
	• Check Remote File Share status. • `racadm remoteimage -s Remote File Share is Enabled UserName Password ShareName // 192.168.0.130/xxxx/dtk_3.3_73_Linux.iso` • Deploy a remote image on iDRAC CIFS Share. • `racadm remoteimage -c -u admin -p xxx -l // 192.168.0.130/dev/OM840.iso` • Deploy a remote image on iDRAC NFS Share. • `racadm remoteimage -c -u root -p password -l ' 192.168.0.130:/opt/nfs/Test` **NOTE:** In the above example, `Test` is a folder name . • Deploy a remote image on iDRAC HTTP Share. • `racadm remoteimage -c -u "user" -p "xxx" -l http://shrloc/foo.iso` • Deploy a remote image on iDRAC HTTPS Share. • `racadm remoteimage -c -u "user" -p "xxx" -l https://shrloc/foo.iso` **NOTE:** -p and -u options are not mandatory if there are HTTP/HTTPS based **remoteimage** commands.

remoteimage2

Table 70. remoteimage2 command parameters and options

remoteimage2	
Description	Connects, disconnects, or deploys either a media file or directory on a remote server. To run this subcommand, you must log in with virtual media privilege for iDRAC. **NOTE:** Use this command to attach a second remote image simultaneously. **NOTE:** Attach directory feature is only supported on 15th generation and newer PowerEdge servers.
Synopsis	• `racadm remoteimage2 -d` • `racadm remoteimage2 -s` • `racadm remoteimage2 -c [-u <username> -p <password> -l <image_path>]`
Input	• `-c`—Connect the image. • `-d`—Disconnect image. • `-u`—User name to access the shared folder. • `-p`—Password to access a shared folder. • `-l` —Image location on the network share; use single quotation marks around the location. • `-s` —Display status. **NOTE:** Use a forward slash (/) when providing the image location. If backward slash (\) is used, override the backward slash for the command to run successfully. For example: `racadm remoteimage2 -c -u user -p xxx -l /\/\192.168.0.2/\CommonShare/\diskette` **NOTE:** The following options apply only to connect and deploy actions: • `-u` —Username. User name to access the network share. For domain users, you can use the following formats: ○ domain/user ○ domain\user ○ user@domain • `-p` —Password to access the network share.

Table 70. remoteimage2 command parameters and options (continued)

remoteimage2	

Example	• Disable Remote File Sharing.
	`racadm remoteimage2 -d`
	`Disable Remote File Started. Please check status using -s option to know Remote File Share is ENABLED or DISABLED.`
	• Check Remote File Share status. `racadm remoteimage2 -s Remote File Share is Enabled UserName Password ShareName // 192.168.0.130/xxxx/dtk_3.3_73_Linux.iso`
	• Deploy a remote image on iDRAC CIFS Share. `racadm remoteimage2 -c -u admin -p xxx -l // 192.168.0.130/dev/Test`
	NOTE: In the above example, `Test` is a folder name.
	• Deploy a remote image on iDRAC NFS Share. `racadm remoteimage2 -c -u root -p password -l ' 192.168.0.130:/opt/nfs/OM840.iso`
	• Deploy a remote image on iDRAC HTTP Share.
	`racadm remoteimage2 -c -u "user" -p "xxx" -l http://shrloc/foo.iso`
	• Deploy a remote image on iDRAC HTTPS Share. `racadm remoteimage2 -c -u "user" -p "xxx" -l https://shrloc/foo.iso`
	NOTE: -p and -u options are not mandatory if there are HTTP/HTTPS based **remoteimage2** commands.

rollback

Table 71. rollback command parameters and options

rollback	
Description	Allows you to roll back the firmware to an earlier version.
Synopsis	`racadm rollback <FQDD> [--reboot]` **NOTE:** To get the list of available rollback versions and FQDDs, run the `racadm swinventory` command.
Input	• `<FQDD>`: Specify the FQDD of the device for which the rollback is required. • `--reboot`: Performs a graceful system reboot after the BIOS firmware rollback.

Example	• To perform BIOS firmware rollback:
	`racadm rollback iDRAC.Embedded.1-1`
	`RAC1056: Rollback operation initiated successfully.`
	• To perform a graceful system reboot after BIOS firmware rollback:
	`racadm rollback BIOS.Setup.1-1 --reboot`

sekm

Table 72. sekm command parameters and options

sekm	
Description	The sekm subcommand is used to enable and disable sekm support for a server, rekey sekm-supported devices on a server, and test the SSL connection to a given sekm server. To run this subcommand, you must have the following privileges: • **Enable**—server control and configure iDRAC privileges • **Disable**—server control and configure iDRAC privileges • **Rekey**—server control and configure iDRAC privileges • **Testserverconnection**—server control and configure iDRAC privileges • **Getstatus**—login privileges

Synopsis	**NOTE:** To run enable, disable, and testserverconnection commands, the target server must have sekm license.
	`racadm sekm getstatus`
	`racadm sekm enable`
	NOTE: When you execute `racadm sekm enable`, a job ID is returned, query this job id to see the status of sekm. If the query reports failure, check the job ID config results or Lifecycle Controller(LC) logs to find the reason for failure.
	`racadm sekm disable`
	`racadm sekm disable -purgeKMSKeys`
	`racadm sekm rekey <IDRAC FQDD>`
	`racadm sekm testserverconnection -p -i <index of the sekm server>`
	`racadm sekm testserverconnection -s -i <index of the sekm server>`
	`racadm sekm enable -passphrase <password>`

Input	• `-i`—Index of the sekm server to test • `-p`—Indicates primary sekm server • `-s`—Indicates secondary sekm server • `-purgeKMSKeys`—Purge the Key Management Server keys • `-passphrase`—To enter a passphrase when updating encryption mode from iLKM to sekm.

Example	To get sekm status:
	`racadm sekm getstatus`
	To enable sekm feature:
	`racadm sekm enable`
	To disable sekm feature:
	`racadm sekm disable`

Table 72. sekm command parameters and options (continued)

sekm	

	To disable sekm feature and purge KMS keys:
	`racadm sekm disable -purgeKMSKeys`
	To request iDRAC to rekey all the devices:
	`racadm sekm rekey iDRAC.Embedded.1`
	To test primary sekm server connection:
	`racadm sekm testserverconnection -p -i 1`
	To test the secondary sekm server connection:
	`racadm sekm testserverconnection -s -i 1`
	To change security mode to sekm from iLKM:
	`racadm sekm enable -passphrase password`
	NOTE: Only one primary server is supported. Option -i should be 1.
	NOTE: For **sekm getstatus**, the returned values and their meaning are as follows:
	• **Disabled**—sekm functionality has been disabled on iDRAC and no sekm functions are available.
	• **Enabled**—sekm functionality has been enabled on iDRAC and all sekm functions are available.
	• **Failed**—iDRAC is unable to communicate with the sekm server.
	• **Unverified Changes Exist**—Changes have been made to the sekm configuration but not yet enabled using the `racadm sekm enable` command.

serialcapture

Table 73. serialcapture command parameters and options

serialcapture	
Description	The `serialcapture` subcommand is used to export and clear serial data captured from the system. To run this subcommand, you must have the following privileges:

Synopsis	**NOTE:** To run clear and export commands, the target server must have iDRAC Datacenter license.
	To clear serial data.
	`racadm serialcapture clear`
	To export serial data.
	`racadm serialcapture export -u <shareuser> -p <sharepassword> -l <NFS/CIFS/HTTP/HTTPS share> -f <FileName>`

Input	• `-f`—Filename of the exported serial data. • `-u`—Username of the remote share to where the file must be exported. The username must be specified as domain/username. • `-p`—Password for the remote share to where the file must be exported. • `-l`—Network share location to where the serial data captured must be exported. For more information on NFS or CIFS or HTTP or HTTPS share, see section on Usage examples.

Table 73. serialcapture command parameters and options (continued)

serialcapture	

Example	To clear serial data buffer.
	`racadm serialcapture clear`
	To export serial data to CIFS share.
	`racadm serialcapture export -u cifsuser -p cifspassword -l //1.2.3.4/cifsshare -f datafile`
	To export serial data to NFS share.
	`racadm serialcapture export -u nfssuser -p nfspassword -l 1.2.3.4:/nfsshare -f datafile`
	To export serial data to HTTP share.
	`racadm serialcapture export -u httpuser -p httppassword -l http:/1.2.3.4/httpshare -f datafile`
	To export serial data to HTTPS share.
	`racadm serialcapture export -u httpsuser -p httpspassword -l https:/1.2.3.4/cifsshare -f datafile`

sensorsettings

Table 74. sensorsettings command parameters and options

sensorsettings	
Description	Allows you to perform threshold settings of the sensor. To run this subcommand, you must have **Configure iDRAC** privilege. **NOTE:** An error message is displayed when the following is performed: • A set operation is performed on an unsupported FQDD. • Out of range settings are entered. • Invalid sensor FQDD is entered. • An invalid threshold level filter is entered.
Synopsis	`racadm sensorsettings set <FQDD> -level Min <value>`
Input	• `<FQDD>`—Sensor or corresponding sensor FQDD which needs a threshold configuration. Run the command, `racadm getsensorinfo` to view the sensor FQDD. The `R/W` field in the output getsensorinfo indicates if the sensor thresholds can be configured. Replace the `<FQDD>` field with the corresponding sensor FQDD that needs a threshold configuration. • `-level`—Threshold level for the sensor setting. Values are `Max` or `Min`.
Examples	To set the minimum noncritical threshold level for a power sensor type. `racadm sensorsettings set iDRAC.Embedded.1#SystemBoardCPUUsage -level Max 95` **NOTE:** The entered value must be lesser or higher than the sensor critical threshold limit.

serveraction

Table 75. serveraction command parameters and options

serveraction	
Description	Enables you to perform power management operations on the blade server. To run this subcommand, you must have the Execute Server Control Commands permission.

Synopsis	`racadm serveraction <action>`
	
	`racadm serveraction <action> -f`

Input	`<action>`—Specifies the power management operation to perform. The options are:
	• `hardreset`—Performs a force reset (reboot) operation on the managed system.
	• `powercycle`—Performs a power-cycle (cold reboot) operation on the managed system. This action is similar to pressing the power button on the system's front panel to turn off and then turn on the system.
	• `powerdown`—powers off the managed system.
	• `powerstatus`—Displays the current power status of the server. For example, ON, OFF, Power On Pending, and Power Off Pending.
	• `powerup`—Powers on the managed system.
	  ○ **On**—The server is already powered on or getting powered on.
	  ○ **Power On Pending**—The server is already powered on or getting powered on.
	  ○ **Off**—The server power operation is successful.
	• `graceshutdown`—Performs a graceful shutdown of the server. If the operating system on the server cannot shut down completely, then this operation is not performed.
	  ○ **On**—The server power operation is successful.
	  ○ **Power Off Pending**—The server is already powered off or getting powered off.
	  ○ **Off**—The server is already powered off or getting powered off.
	• `nmi`—Generates the Nonmasking interrupt (NMI) to stop the system operation. The NMI sends a high-level interrupt to the operating system, which causes the system to stop the operation to allow critical diagnostic or troubleshooting activities.
	
	NOTE: The stop system operation does not occur on systems running the Linux operating system.
	
	• Power Reset on Chassis—Perform a Virtual AC Power Cycle operation.
	• `-f`—Force the server power management operation. This option is applicable only for the PowerEdge-VRTX platform. It is used with `powerdown`,`powercycle`, and `hardreset` options.
	• `chassisfullpowercycle`—Performs a Virtual AC Power Cycle operation on the chassis.

Output	It displays an error message if the requested operation is not completed, or a success message if the operation is completed.

Table 75. serveraction command parameters and options (continued)

serveraction	

Example	Get Power Status on iDRAC
	`racadm serveraction powerstatus`
	`Server Power Status: ON`
	`racadm serveraction powercycle`
	`Server power operation successful`
	`racadm serveraction powerup`
	`Server Power Status: Power On Pending`
	`racadm serveraction powerup`
	`Server Power Status: On`
	`racadm serveraction gracefulshutdown`
	`Server Power Status: Off`
	`racadm serveraction gracefulshutdown`
	`Server Power Status: Power Off Pending`
	`racadm serveraction chassisfulpowercycle`
	`Power is reset on the chassis.`

setled

Table 76. setled command parameters and options

setled	
Description	Sets the state (blinking or not blinking) of the LED on the specified module. To run this subcommand, you must have the Configure iDRAC permission.
Synopsis	`racadm setled -l <ledState>`
Input	• `-l <ledState>` — Specifies the LED state. The values are: ○ 0—No Blinking ○ 1—Blinking

Example	• From iDRAC, stop LED from blinking.
	`racadm setled -l 0`
	`RAC0908: System ID LED blink off.`
	• From iDRAC, start LED to blink.
	`racadm setled -l 1`
	`RAC0907: System ID LED blink on.`

setniccfg

Table 77. setniccfg command parameters and options

setniccfg	
Description	Sets the iDRAC IP address for static and DHCP modes. To run this subcommand, you must have the **Configure iDRAC** privilege. **NOTE:** The terms NIC and Ethernet management port may be used interchangeably.
Synopsis	• `racadm setniccfg -d` • `racadm setniccfg -d6` • `racadm setniccfg -s <IPv4Address> <netmask> <IPv4 gateway>` • `racadm setniccfg -s6 <IPv6 Address> <IPv6 Prefix Length> <IPv6 Gateway>` • `racadm setniccfg -o`
Input	• `-d`—Enables DHCP for the NIC. It is enabled by default. • `-d6`—Enables AutoConfig for the NIC (default is disabled). • `-s`—Enables static IP settings. The IPv4 address, netmask, and gateway must be specified. Otherwise, the existing static settings are used. `<ipaddress>`, `<netmask>`, and `<gateway>` must be typed as dot-separated strings. `racadm setniccfg -s 192.168.0.120 255.255.255.0 192.168.0` • `-s6`—Enables static IPv6 settings. The IPv6 address, Prefix Length, and the IPv6 Gateway can be specified. • `-o`—Enable or disable NIC.

Example	• To Configure a static IPv4 address for iDRAC NIC.
	`racadm setniccfg -s 192.168.0.120 255.255.255.0 192.168.0`
	`Static IP configuration enabled and modified successfully`
	• Configure DHCP mode for iDRAC IPv4.
	`racadm setniccfg -d`
	`DHCP is now ENABLED`
	• Configure DHCP mode for iDRAC IPv6.
	`racadm setniccfg -d6`
	`DHCP6 is now ENABLED`

spdm

Table 78. spdm command parameters and options

spdm	
Description	The spdm command is used to display inventory of spdm capable devices, list spdm capable FQDDs, and collect and export the hardware and software identity of spdm devices. **NOTE:** This command is enabled for Emulex cards only.

Table 78. spdm command parameters and options (continued)

spdm	

Synopsis	`racadm spdm list`
	
	`racadm spdm <FQDD>`
	
	`racadm spdm export -f <filename> -c <FQDD> -t <identity cert type> -u <username> -p <password> -l <CIFS/NFS share>`

Input	• `-f <filename>`—File name • `-c <FQDD>`—FQDD of SPDM device • `-t <identity cert type>`—Type of identity ○ `t 0` — Hardware identity **NOTE:** SPDM command only supports hardware identification certificates. • `-u <username>`—Username for the remote share where the file must be exported. The username in a domain can be given as domain/username. • `-p <password>`—Password for the remote share where the file must be exported. • `-l <CIFS or NFS share>`—Network share location where the SPDM identity must be exported.

Example	To list the FQDDs which are SPDM capable:
	`racadm spdm list`
	To display the inventory of SPDM capable devices:
	`racadm spdm FC.Slot.1-1`
	To export the SPDM identity to a remote CIFS share:
	`racadm spdm export -f MyCert.cert -c FC.Slot.1-1 -t 0 -u admin -p mypass -l //192.168.0.130/share`
	To export the SPDM identity to a remote NFS share:
	`racadm spdm export -f MyCert.cert -c FC.Slot.1-1 -t 0 -u admin -p mypass -l 192.168.0.130:/share`
	Dump Measurements into json to a remote CIFS share:
	`racadm spdm getmeasurement -f MyCert.cert -c CPU.Socket.1-0 -u admin -p mypass -l //192.168.0.130/share`
	Dump Measurements into json to a remote NFS share:
	`racadm spdm getmeasurement -f MyCert.json -c CPU.Socket.1-1 -u admin -p mypass -l 192.168.0.130:/share`

sshpkauth

Table 79. sshpkauth command parameters and options

sshpkauth	
Description	Enables you to upload and manage up to 4 different SSH public keys for each user. You can upload a key file or key text, view keys, or delete keys. This command has three mutually exclusive modes determined

Table 79. sshpkauth command parameters and options (continued)

sshpkauth	
	by the options — `upload`, `view`, and `delete`. To run this subcommand, you must have Configure user privilege.
Synopsis	• `racadm sshpkauth -i svcacct -k <key_index> -t <PK_key_text>` • `racadm sshpkauth -i svcacct -k <key_index> -f <PK_key_text>` • `racadm sshpkauth -v -i svcacct -k all|<key_index>` • `racadm sshpkauth -d -i svcacct -k all|<key_index>`
Input	• `-i <user_index>` — Index for the user. • `-k [<key_index> | all]` — Index to assign the PK key being uploaded. `all` only works with the `-v` or `-d` options. `<key_index>` must be between 1 to 4 or `all` on iDRAC. • `-t <PK_Key_Text>` — Key text for the SSH Public key. • `-f <filename>` — File containing the key text to upload. **NOTE:** The `-f` option is not supported on SSH or serial RACADM. • `-v` — View the key text for the index provided. • `-d` — Delete the key for the index provided.

Example

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

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

```
ERROR: Key text appears to be corrupt
```

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

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

```
Key file successfully uploaded.
```

- Get all keys for User 2 on iDRAC.

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

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

```
Key ID 1:
```

```
Key ID 2:
```

```
Key ID 3:
```

```
Key ID 4:
```

sslcertdelete

Table 80. sslcertdelete command parameters and options

sslcertdelete	
Description	Command to delete a custom signing certificate from iDRAC. To run this subcommand for web server certificates, you must have **Login to iDRAC** and **Configure iDRAC** privileges and for others only **Configure iDRAC** privilege is required.
Synopsis	• `racadm sslcertdelete -t <type>` • `racadm sslcertdelete -t 8 -i <instance(1 or 2)>`
Input	• `-t`—Specifies the type of certificate to delete. The type of certificate is: ○ `3`—Custom signing certificate ○ `4`—Client trust certificate for SSL ○ `6`—SEKM SSL certificate ○ `7`—KMS CA certificate ○ `8`—Rsyslog Server CA ○ `12`—Rsyslog Server CA cert ○ `13`—Rsyslog Client trust cert ○ `16`—Custom certificate • `-i`—Instance value should be 1 or 2. This is applicable only for Rsyslog Server CA certificate(-t 8).
Output	The following information is displayed: • The custom signing certificate was deleted. • The iDRAC resets and may be offline temporarily. • Telemetry certificate deleted successfully.

Example	• Use Remote RACADM to delete the custom signing certificate.
	`$ racadm -r 192.168.0.120 -u root -p xxx sslcertdelete -t 3`
	• Use Remote RACADM to delete the Client Trust certificate for SSL.
	`$ racadm -r 192.168.0.120 -u root -p xxx sslcertdelete -t 4`
	• Use Remote RACADM to delete the telemetry certificate.
	`racadm -r 192.168.0.120 -u root -p xxx sslcertdelete -t 8 -i 1`

sslcertdownload

Table 81. sslcertdownload command parameters and options

sslcertdownload	
Description	Downloads an SSL certificate from iDRAC to the file system of the system. To run this subcommand for web server certificates, you must have **Login to iDRAC** and **Configure iDRAC** privileges and for others only **Control and Configure System** privilege is required. **NOTE:** This subcommand is supported only on one or more remote interfaces.
Synopsis	• `racadm sslcertdownload -f <filename> -t <type>` • `racadm sslcertupload -t 8 -i <instance(1 or 2)>`
Input	• `-f`—Specifies the target filename on the local file system to download the certificate. • `-t <type>`—Specifies the type of certificate to download, either the CA certificate for Directory Service or the server certificate. ○ `1`—Server Certificate ○ `2`—Active Directory

Table 81. sslcertdownload command parameters and options (continued)

sslcertdownload	
	○ 3—Custom Signing Certificate ○ 4—Client Trust Certificate for SSL ○ 6—SEKM SSL certificate ○ 7—KMS CA certificate ○ 8—Rsyslog Server CA ○ 9—RSA CA certificate ○ 10—SCEP CA certificate ○ 11—SCV Signed Certificate **NOTE:** This input is available for local RACADM only. ○ 12—Rsyslog Server CA Cert ○ 13—Rsyslog Client trust Cert ○ 14—IEEE 802.1X Custom Certificate ○ 15—IEEE 802.1X Server CA Certificate ○ 16—Custom certificate ○ 17—IEEE 802.1X Custom Signing Certificate • `-i`—Instance value should be 1 or 2. This is only applicable for Rsyslog Server CA Certificate(`-t 8`).
Output	• Returns 0 when successful and a nonzero number when unsuccessful. • `racadm sslcertdownload -t 8 -i 1` Telemetry certificate downloaded successfully.

Example	• Download server certificate:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertdownload -t 1 -f cert.txt`
	• Download Active Directory certificate:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertdownload -t 2 -f ad_cert.txt`
	• Download telemetry certificate:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertdownload -t 8 -i 1`

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

sslcertupload

Table 82. sslcertupload command parameters and options

sslcertupload	
Description	Uploads a custom SSL server or CA certificate for Directory Service from the client to iDRAC. To run this subcommand, you must have the following privilege: • Active Directory certificate - **Configure iDRAC** and **Configure Users**. • Public Key Cryptography Standards (PKCS) format - **Configure iDRAC**. • Client Trust certificate for SSL format - **Configure iDRAC** • Web server certificate- **Login to iDRAC** and **Configure iDRAC** **NOTE:** For this command, files without extension or no extension are allowed.
Synopsis	• `racadm sslcertupload -t <type> -f <filename> -p <passphrase>` • `racadm sslcertupload -t 8 -i <instance(1 or 2)>`
Input	• `-f`—Specifies the source filename in the local file system of the certificate uploaded. • `-p`—Pass phrase for the Public Key Cryptography Standards file.

Table 82. sslcertupload command parameters and options (continued)

sslcertupload	

	• `-t`—Specifies the type of certificate to upload. The type of certificate must be:
	  ○ `1`—Server certificate
	  ○ `2`—CA certificate for Directory Service
	  ○ `3`—Public Key Cryptography Standards (PKCS) format
	  ○ `4`—Client Trust certificate for SSL format
	  ○ `6`—SEKM SSL certificate
	  ○ `7`—KMS CA certificate
	  ○ `8`—Rsyslog Server CA
	  ○ `9`—RSA CA certificate
	  ○ `10`—SCEP CA certificate
	  ○ `12`—Rsyslog Server CA Cert
	  ○ `13`—Rsyslog Client trust Cert
	  ○ `14`—IEEE 802.1X Custom Certificate
	  ○ `15`—IEEE 802.1X Server CA Certificate
	  ○ `16`—Custom certificate
	  ○ `17`—IEEE 802.1X Custom Signing Certificate
	• `-i`—Instance value should be 1 or 2. This is applicable only for Rsyslog Server CA certificate(`-t 8`).

Output	• `racadm -r 192.168.0.120 -u root -p xxx sslcertupload -t 2 -f cert.txt` Certificate that is successfully uploaded to the RAC. • `racadm sslcertupload -t 8 -i 1` Telemetry certificate uploaded successfully.

Example	• Uploading a server certificate:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertupload -t 1 -f cert.txt`
	• Uploading web server certificate and key:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertupload -t 6 -f cert.txt -k key.txt`
	• Uploading Active Directory certificate:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertupload -t 2 -f ad_cert.txt`
	• Uploading Client Trust certificate for SSL:
	`racadm -r 192.168.0.120 -u root -p xxx sslcertupload -t 4 -f https_cert.cer`
	• Uploading a telemetry certificate:
	`racadm -r 192.168.0.2 -u root -p xxx sslcertupload -t 8 -i 1`

sslcertview

Table 83. sslcertview command parameters and options

sslcertview	
Description	Displays the SSL server or CA certificate that exists on iDRAC.
Synopsis	• `racadm sslcertview -t <type> [-A]` • `racadm sslcertview -t <type> -i <instance>`

Table 83. sslcertview command parameters and options (continued)

sslcertview	

Input	• `-t`—Specifies the type of certificate to view:
	  ○ `1`—Server Certificate
	  ○ `2`—Active Directory
	  ○ `4`—Client Trust certificate for SSL
	  ○ `6`—SEKM SSL certificate
	  ○ `7`—KMS CA certificate
	  ○ `8`—Rsyslog CA certificate
	  ○ `9`—RSA CA certificate
	  ○ `10`—SCEP CA certificate
	  ○ `12`—Rsyslog Server CA cert
	  ○ `13`—Rsyslog Client trust cert
	  ○ `14`—IEEE 802.1X Custom Certificate
	  ○ `15`—IEEE 802.1X Server CA Certificate
	  ○ `17`—IEEE 802.1X Custom Signing Certificate
	• `-A`—Prevents printing headers or labels.
	• `-i`—Instance value should be 1 or 2. This is applicable only for Rsyslog Server CA certificate (`-t 8`)
	NOTE: If a certificate is generated using a comma ',' as one of the parameters, the command displays the partial name in the following fields only until the comma:
	• Organization Name
	• Common Name
	• Location Name
	• State Name
	The rest of the string is not displayed.

Output	• `racadm sslcertview -t 1`
	
	`Serial Number : 163C50AE4D7BD79A759AC641B5D93E7C5504E3BE`
	
	`Subject Information:`
	`Country Code (CC) : US`
	`State (S) : Texas`
	`Locality (L) : Round Rock`
	`Organization (O) : Dell Inc.`
	`Organizational Unit (OU) : Remote Access Group`
	`Common Name (CN) : idrac-OT05605`
	
	`Issuer Information:`
	`Country Code (CC) : US`
	`State (S) : Texas`
	`Locality (L) : Round Rock`
	`Organization (O) : Dell Inc.`
	`Organizational Unit (OU) : Remote Access Group`
	`Common Name (CN) : idrac-OT05605`
	
	`Valid From : Oct 20 19:36:00 2024 GMT`
	`Valid To : Oct 21 19:36:00 2034 GMT`
	• `racadm sslcertview -t 1 -A`
	`163C50AE4D7BD79A759AC641B5D93E7C5504E3BE`
	`US`
	`Texas`
	`Round Rock`
	`Dell Inc.`
	`Remote Access Group`
	`idrac-OT05605`
	`US`
	`Texas`
	`Round Rock`

Table 83. sslcertview command parameters and options (continued)

sslcertview	
	Dell Inc. Remote Access Group idrac-OT05605 Oct 20 19:36:00 2024 GMT Oct 21 19:36:00 2034 GMT
Example	• To view the server certificate: racadm -r 192.168.0.120 -u root -p xxx sslcertview -t 1 racadm -r 192.168.0.120 -u root -p xxx sslcertview -t 8 -i 1 • To view the server certificate with headers and labels omitted: racadm -r 192.168.0.120 -u root -p xxx sslcertview -t 1 -A racadm -r 192.168.0.120 -u root -p xxx sslcertview -t 8 -i 1 -A

sslcsrgen

Table 84. sslcsrgen command parameters and options

sslcsrgen	
Description	Generates and downloads a certificate signing request (CSR) file to the client's local file system. The CSR can be used for creating a custom SSL certificate that can be used for SSL transactions on iDRAC. To run this subcommand, you must have the Configure iDRAC privilege.
Synopsis	• racadm sslcsrgen -g • racadm sslcsrgen [-g] [-f <filename>] • racadm sslcsrgen -s • racadm sslcsrgen -g -t <csr_type> • racadm sslcsrgen -g -f <filename> -t <csr_type> • racadm sslcsrgen -s -t <csr_type>
Input	• -g—Generates a new CSR. • -s—Returns the status of a CSR generation process (generation in progress, active, or none). • -f—Specifies the filename of the location, <filename>, where the CSR is downloaded. **NOTE:** The -f option is only supported on the remote interfaces. • -t —Specifies the type of CSR to be generated. The options are: ○ 1—SSL cert ○ 2—Factory Identity Cert ○ 3—SEKM SSL Cert ○ 4—Rsyslog SSL Cert
Output	If no options are specified, a CSR is generated and downloaded to the local file system as sslcsr by default. The -g option cannot be used with the -s option, and the -f option can only be used with the -g option. The sslcsrgen -s subcommand returns one of the following status codes: • CSR was generated successfully. • CSR does not exist.

Table 84. sslcsrgen command parameters and options (continued)

sslcsrgen	

Example	• Display the status of CSR operation:
	`racadm sslcsrgen -s`
	• Generate and download a CSR to local file system using remote RACADM
	`racadm -r 192.168.0.120 -u <username> -p <password> sslcsrgen -g -f csrtest.txt`
	• Generate and download a CSR to local file system using local RACADM
	`racadm sslcsrgen -g -f c:\csr\csrtest.txt`
	• Generate a new certificate signing request for SSL type
	`racadm sslcsrgen -g -t 1`
	• Display the status of the current CSR operation for SSL type
	`racadm sslcsrgen -s -t 1`
	• Generate a new certificate signing request for Rsyslog SSL Cert
	`racadm sslcsrgen -g -t 4`
	• Display the status of the current CSR operation for Rsyslog SSL Cert
	`racadm sslcsrgen -s -t 4`

NOTE: Before a CSR can be generated, the CSR fields must be configured in the RACADM `iDRAC.Security` group. For example:

```
racadm set iDRAC.security.commonname MyCompany
```

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

sslkeyupload

Table 85. sslkeyupload command parameters and options

sslkeyupload	
Description	Uploads SSL key from the client to iDRAC. To run this subcommand, you must have the **Login and Configure iDRAC** privileges.
Synopsis	`racadm sslkeyupload -t <type> -f <filename>`
Input	• `-t` — Specifies the key to upload. The value is: o `1` — SSL key used to generate the server certificate. • `-f` — Specifies the filename of the SSL key that must be uploaded.
Output	If upload is successful, the message `SSL key successfully uploaded to the RAC` is displayed. if upload is unsuccessful, error message is displayed.
Example	`racadm sslkeyupload -t 1 -f c:\sslkey.txt`

sslresetcfg

Table 86. sslresetcfg command parameters and options

sslresetcfg	
Description	Restores the web-server certificate to factory default and restarts web-server. The certificate takes effect 30 seconds after the command is entered. To run this subcommand, you must have the Configure iDRAC privilege.
Synopsis	`racadm sslresetcfg`
Input	N/A
Example	`racadm sslresetcfg` `Web server is restarting to complete the certificate update. Please wait for a few minutes for this process to complete.`

storage

Table 87. storage command parameters and options

storage	
Description	Allows you to run the commands to control storage arrays. To run this subcommand for configuring the storage properties, you must have the server control permission.

Synopsis	**Inventory**
	NOTE: You can also run the command using `raid` in place of the `storage` command.
	• To view the help details for get command, run the following command:
	`racadm storage help get`
	• To generate and view information about the inventory of storage root node, run the following command:
	`racadm storage get status`
	• To generate and view information about the inventory of controllers, run the following command:
	`racadm storage get controllers -o`
	`racadm storage get controllers -o -p <property names separated by comma>`
	• To get the list of controllers, run the following command:
	`racadm storage get controllers`
	• To get the properties of a controller, run the following command:
	`racadm storage get controllers:<Controller FQDD>`
	NOTE: HBA, BOSS-N1, and PERCs connected using a slimline cable will have FQDDs starting with `SL`. Example - `NonRaid.SL.5-1`, `AHCI.SL.5-1`, `RAID.SL.5-1` and so on.

Table 87. storage command parameters and options (continued)

storage	

	• To generate and view information about the inventory of batteries, run the following command:
	`racadm storage get batteries -o`
	`racadm storage get batteries --refkey <Controller FQDDs separated by comma>`
	`racadm storage get batteries --refkey <Controller FQDDs separated by comma> -o`
	`racadm storage get batteries --refkey <Controller FQDDs separated by comma> -o -p <property names separated by comma>`
	• To generate and view information about the inventory of virtual disks, run the following command:
	`racadm storage get vdisks`
	`racadm storage get vdisks --refkey <Controller FQDDs separated by comma>`
	`racadm storage get vdisks --refkey <Controller FQDDs separated by comma> -o`
	`racadm storage get vdisks --refkey <Controller FQDDs separated by comma> -o -p <property names separated by comma>`
	• To generate and view information about the inventory of enclosures, run the following command:
	NOTE: FQDD of certain Backplanes may not be the same in Software Inventory and Hardware Inventory.
	`racadm storage get enclosures -o`
	`racadm storage get enclosures --refkey <Connector FQDDs separated by comma>`
	`racadm storage get enclosures --refkey <Connector FQDDs separated by comma> -o -p <property names separated by comma>`
	• To get the list of enclosures, run the following command:
	`racadm storage get enclosures`
	• To get the properties of an enclosure, run the following command:
	`racadm storage get enclosures:<Enclosure FQDD>`

Table 87. storage command parameters and options (continued)

storage	

	• To generate and view information about the inventory of physical disk drives, run the following command:
	`racadm storage get pdisks`
	`racadm storage get pdisks -o`
	`racadm storage get pdisks -o -p <property names separated by comma>`
	`racadm storage get pdisks --refkey <Enclosure/Backplanes FQDDs separated by comma>`
	`racadm storage get pdisks --refkey <Enclosure/Backplanes FQDDs separated by comma> -o`
	`racadm storage get pdisks --refkey <Enclosure/Backplanes FQDDs separated by comma> -o -p <property names separated by comma>`
	• To get the list of physical disks, run the following command:
	`racadm storage get pdisks`
	• To get the properties of a physical disk, run the following command:
	`racadm storage get pdisks:<PD FQDD>`
	• To get a list of physical disks in a virtual disk, run the following command:
	`racadm storage get pdisks -vdkey:<VD FQDD>`
	• To generate and view information about the inventory of fans, run the following command:
	`racadm storage get fans --refkey <Enclosure FQDDs separated by comma>`
	`racadm storage get fans --refkey <Enclosure FQDDs separated by comma > -o`
	`racadm storage get fans --refkey <Enclosure FQDDs separated by comma> -o -p <property names separated by comma>`
	• To generate and view information about the inventory of EMMs, run the following command:
	`racadm storage get emms -refkey <Enclosure FQDDs separated by comma>`
	`racadm storage get emms --refkey <Enclosure FQDDs separated by comma> -o`
	`racadm storage get emms --refkey <Enclosure FQDDs separated by comma> -o -p <property names separated by comma>`
	• To generate and view information about the inventory of PSU, run the following command:
	`racadm storage get psus -refkey <Enclosure FQDDs separated by comma>`
	`racadm storage get psus --refkey <Enclosure FQDDs separated by comma> -o`
	`racadm storage get psus --refkey <Enclosure FQDDs separated by comma> -o -p <property names separated by comma>`
	Configuration

Table 87. storage command parameters and options (continued)

storage	
	NOTE: For any storage operation executed, creating a configuration job is needed for the operation to be applied. Only storage operations that don't need a configuration job to apply the changes are blink/unblink. Also supported is the ability to stack multiple storage operations for one configuration job. Examples are `execute reset config`, `create VD`, `assign hotspare` and `create configuration job`. For more details on creating configuration job, refer to `jobqueue help create` command. Below are the supported input options for storage operations: • `--refkey`—Specifies the controller or enclosure FQDDs. • `-name`—Specifies the new name for the virtual disk. **NOTE:** You can use alphanumeric characters, spaces, dashes, and underscores in the disk name. Any other special character that you enter is removed and replaced by a space while creating a virtual disk. • `-size`—Specifies the new size for the virtual disk. It should be more than the current size. ○ `b`—Specifies the size in bytes ○ `k`—Specifies the size in kilobytes ○ `m`—Specifies the size in megabytes ○ `g`—Specifies the size in gigabytes ○ `t`—Specifies the size in terabytes • `-rl`—Sets the storage level. ○ `r0`—storage 0-Striping ○ `r1`—storage 1-Mirroring ○ `r5`—storage 5-Striping with Parity ○ `r6`—storage 6-Striping with Extra Parity ○ `r10`—storage 10-Spanned Striping with Mirroring ○ `r50`—storage 50-Spanned Striping with Parity ○ `r60`—storage 60-Spanned Striping with Extra Parity • `-new_rl`—Specifies the new possible raid level for the virtual disk ○ `r0`—RAID0 ○ `r1`—RAID1 ○ `r5`—RAID5 ○ `r6`—RAID6 **NOTE:** This is a mandatory option must provide with RLM operation. Possible raid migrations with disk addition are R0-R1, R0-R5/R6,R1-R0/R5/R6, R5-R0/R6, R6-R0/R5. Possible raid migrations without disk addition are R1-R0, R5-R0, R6-R0/R5. • `-wp{wt|wb|wbf}`—Sets the write policy to Write Through, Write Back, or Write Back Force • `-rp {nra|ra|ara}`—Sets the read policy to No Read Ahead, Read Ahead, Adaptive Read Ahead • `-ss`—Specifies the stripe size to use. • `-pdkey:<PD FQDD list>`—Specifies the physical disk drive to use in the virtual disk. • `-dcp`—Sets the Disk Cache Policy in the Virtual Disk. ○ `enabled`—Allows the virtual disk to use the cache. ○ `disabled`—Does not allow the virtual disk to use the cache. ○ `default`—Uses the default cache policy. For SAS drives, use the `disabled` option and for SATA drives, use the `enabled` option by default. • `-name <VD name>`—Specifies the name of the virtual disk. • `-size <VD size>`—Specifies the size of each virtual disk. ○ `b`—Specifies the size in bytes ○ `k`—Specifies the size in kilobytes ○ `m`—Specifies the size in megabytes ○ `g`—Specifies the size in gigabytes

Table 87. storage command parameters and options (continued)

storage	
	○ t—Specifies the size in terabytes • -sc—Number of spans in a virtual disk (required for multi-span RAID level) **NOTE:** ○ From PERC9 storage controller onwards, if the value of controller.SupportRAID10UnevenSpans is supported, you can enter only 0 for this option while creating RAID level 10. The created RAID10 virtual disk displays the spandepth as 1 (default). ○ For other controllers: ▪ The default value for multi-span RAID levels is 2 and for basic RAID level is 1. ▪ For hybrid RAID levels such as RAID10, RAID50, and RAID60, this option is mandatory. ▪ The value for-sc option can be 0 only for RAID10. • -T10PIEnable—Creates a virtual disk with protection information. • -sd <SecureDisk>—Set the secure disk to encrypt the VD. ○ enabled—Enable the encryption in VD. ○ disabled—Disable the encryption in VD. • -key <Key id>—Specifies the key id. • -passwd <passphrase>—Specifies the passphrase. • -newpasswd <passphrase>—Specifies the new passphrase. • -assign {yes | no}—Assigns or unassigns the disk as a hotspare. • -type { ghs | dhs}—Assigns a global or dedicated hotspare. • -vdkey:<VD FQDD>—Assigns the dedicated hotspare to the specified virtual disk. This option is required for dedicated hotspare. • -state <start|stop>—start value starts a patrol read operation. stop value stops a running patrol read operation. **NOTE:** ○ To start the operation, the Controller.PatrolReadMode must be in Manual mode. ○ The values displayed for properties such as Patrol Read, Check Consistency Rate, Rebuild Rate, BGI Rate, and Reconstruction Rate are displayed in percentage. • -speed—Specifies the initialization of the Virtual disk. ○ fast—Performs fast initialization. ○ full—Performs slow initialization. • blink: <FQDD> or unblink: <FQDD>—<FQDD> can be physical disk drives, virtual disks, or PCIeSSD. • <PCIeSSD FQDD>—Specifies the PCIeSSD FQDD. • <PCIeSSD controller|enclosure FQDD>—Specifies the PCIeSSD controller or enclosure FQDD. • preparetoremove—Specifies the PCIeSSD drive to prepare for removal. **NOTE:** Ensure that ISM is installed and running to perform the preparetoremove operation. • cryptographicerase—Specifies the PCIeSSD, SED (Self encrypting drive) or ISE device to perform the cryptographic erase operation. **NOTE:** If running this operation on an ISE or SED device, it must not be a part of a RAID volume. If the device is part of a RAID volume, delete the volume first and then run cryptographicerase. • -mdtype { windows | linux}—Specifies the metadata type for the physical disk conversion to RAID **NOTE:** SWRAID only supports mdtype.

Table 87. storage command parameters and options (continued)

storage	
	• -mode—Specifies the PERC key management type. • -f : <filename>—The filename to export the identity. • -u : <username> —Username of the remote share to where the file must be exported. • -p : <password>—Password for the remote share to where the file must be exported. • -l : <CIFS or NFS share>—Network share location to where the file must be exported. • <FQDD>—FQDD of the controller. • -t : <identity>—Identity type to be exported. `0 = Hardware identity` • To view the help details for a configuration command, run the following command: `racadm storage help <command>` `where command can take below values converttoraid, converttononraid, controllers, clearconfig, createsecuritykey, createvd, deletesecuritykey, deletevd, encryptvd, enclosures, emms,exportcertificate, fans, hotspare, importconfig, ccheck, cryptographicerase, preparetoremove, blink, unblink, cancelcheck, renamevd, cancelbgi, rebuild, cancelrebuild, capacityexpanon, modifysecuritykey, psus, pdisks, resetconfig, tempprobes, vdisks, patrolread, forceonline, forceoffline,replacephysicaldisk,unlock,and setbootvd.` **NOTE:** iSM must be running on the operating system to run the preparetoremove method: • To create, delete, and secure the virtual disks, to start or stop the consistency check on the specified virtual disk, run the following command: `racadm storage createvd:<Controller FQDD> -rl {r0|r1|r5|r6|r10|r50|r60} [-wp {wt|wb|wbf}] [-rp {nra|ra|ara}] [-ss {1k|2k|4k|8k|16k|32k|64k| 128k|256k|512k|1M|2M|4M|8M|16M}]-pdkey:<comma separated PD FQDD> [-dcp {enabled|disabled|default}] [-name <VD name>] [-size <VD size>{b|k|m|g| t}] [-T10PIEnable] [-sd <secureDisk>]` **NOTE:** ○ T10PI is no longer supported on PERC controllers. ○ If the <VD name> exceeds 15 characters when running the createvd command, it gets corrected to a length of 15 characters once the command is completed successfully.

Table 87. storage command parameters and options (continued)

storage	

	`racadm storage init:<VD FQDD> -speed {fast|full}`
	
	`racadm storage deletevd:<VD FQDD>`
	
	`racadm storage encryptvd:<VD FQDD>`
	
	`racadm storage createsecuritykey:<Controller FQDD> -key <Key id> -xxx <passphrase>`
	
	`racadm storage modifysecuritykey:<Controller FQDD> -key <Key id>-xxx <old passphrase> -xxx <new passphrase>`
	
	`racadm storage deletesecuritykey:<Controller FQDD>`
	
	`racadm storage ccheck:<VD FQDD>`
	
	`racadm storage cancelcheck:<VD FQDD>`
	
	• To set virtual disk as bootvd and replace physical disk in virtual disk:
	
	`racadm storage setbootvd:<Controller FQDD> -vd <VD FQDD >`
	
	`racadm storage replacephysicaldisk:<Source PD FQDD > -dstpd <Destination PD FQDD>`
	
	• To rename, expansion and raid level migration of the virtual disks and, to rebuild, cancel rebuild and cancel the back-ground initialization, run the following command:
	
	`racadm storage renamevd:<VD FQDD > -name <new_vd_name>`
	
	`racadm storage capacityexpansion:<VD FQDD > -size <new size VD> -pdkey <PD FQDDs>`
	
	`racadm storage capacityexpansion:<VD FQDD> -size <new size>.`
	
	`racadm storage discardcache:<Controller FQDD>`
	
	`racadm storage rebuild:<PD FQDD>`
	
	`racadm storage cancelrebuild:<PD FQDD>`
	
	`racadm storage cancelbgi:<VD FQDD>`
	
	• To convert the physical disk drives and assign or delete a hotspare. To scan physical disks that are connected to a controller and detect problem, run the following command:
	
	`racadm storage converttononraid:<PD FQDD>`
	
	`racadm storage converttoraid:<PD FQDD>`
	
	`-mdtype <metadataType>`

Table 87. storage command parameters and options (continued)

storage	

	NOTE: Convert to RAID or Non RAID is not supported on PERC 10 (RAID mode) and BOSS controller cards. PERC10 in eHBA mode supports convert to RAID or Non-RAID.
	
	NOTE: `-mdtype` is only supported for SWRAID controllers.
	
	`racadm storage hotspare:<PD FQDD> -assign yes -type dhs -vdkey: <VD FQDD>`
	
	`racadm storage hotspare:<PD FQDD> -assign yes -type ghs`
	
	`racadm storage hotspare:<PD FQDD> -assign no`
	
	`racadm storage patrolread:<Controller FQDD> -state start|stop`
	
	NOTE: If the `-assign` option is `no`, you cannot add other options. If the `-assign` option is `yes` and if the `-type` option is not present, the global hotspare (ghs) is created by default.
	
	• To reset, clear, and import the storage configuration to the controller, run the following command:
	
	`racadm storage importconfig:<Controller FQDD>`
	
	`racadm storage resetconfig:<Controller FQDD>`
	
	`racadm storage clearconfig:<Controller FQDD>`
	
	• To unlock foreign configuration:
	
	`racadm storage unlock:<Controller FQDD> -key <Key id> -passwd <passphrase>`
	
	• To start or stop a blink or identify operation on the specified storage device, run the following command:
	
	`racadm storage blink:<FQDD>`
	
	`racadm storage blink:<PCIeSSD FQDD>`
	
	`racadm storage unblink:<FQDD>`
	
	`racadm storage unblink:<PCIeSSD FQDD>`
	
	NOTE:
	○ The start or stop a blink feature is not supported for HHHL PCIe SSD devices.
	
	• To force a physical disk online, offline
	
	`racadm storage forceonline:<PD FQDD>`
	
	`racadm storage forceoffline:<PD FQDD>`
	
	NOTE: Forcing a physical drive offline or online may result in loss of data. For more information, see the latest PERC User's Guide.

Table 87. storage command parameters and options (continued)

storage	

	• To prepare the PCIeSSD drive for removal:
	`racadm storage preparetoremove <PCIeSSD FQDD>`
	NOTE: The Prepare to Remove task is not supported for HHHL PCIe SSD devices.
	• To perform a cryptographic erase operation on PCIeSSD device, run the following command:
	`racadm storage cryptographicerase:<PCIeSSD FQDD>`
	• To perform a cryptographic erase operation on PCIeSSD device using PSID, run the following command:
	`racadm storage cryptographicerase:<SED FQDD> -psid <PSID>`
	• To set the encryption mode to Secure Enterprise Key Manager (SEKM) for the PERC controller or migrate from Local Key Manager (LKM) to SEKM mode:
	`racadm storage setencryptionmode:<Controller FQDD> -mode <KEY Management Mode> -passphrase <Dell@123>`
	NOTE: Ensure that you enable SEKM on iDRAC before enabling SEKM on the PERC controller or while migrating the PERC controller from LKM to SEKM security mode.
	• To request iDRAC to rekey all devices:
	`racadm storage rekey:<Controller FQDD>`
	• To export the storage controller identity certificate to a CIFS or NFS share, run the following command:
	NOTE: This command supports both IPV4 and IPV6 formats. IPV6 is applicable for CIFS and NFS type remote shares.
	NOTE: This feature is only supported on storage controllers which support SPDM (Example: PERC 12).
	`racadm storage exportcertificate:<FQDD> -l <CIFS or NFS share> -u <username> -p <password> -f <filename> -t <identity>`

Input	• `-o`—Specifies the optimized version. • `-p`—Specifies the property name.

Example

Inventory

- To view the help details for get command, run the following command:

```
racadm>>storage help get
racadm storage help get
Storage monitoring and inventory of hardware RAID connected to the system.

Usage:

racadm storage get status
racadm storage help <ObjectType1>
racadm storage help <ObjectType2>
racadm storage get <ObjectType1>
racadm storage get <ObjectType1> -o
racadm storage get <ObjectType1> -o -p <PropertyNames separated by comma>
racadm storage get <ObjectType1>:<FQDD's of ObjectType1 separated by comma> -p
<property names separated by comma>
```

```
racadm storage get <ObjectType1>:<FQDD's of ObjectType1 separated by comma>
racadm storage get <ObjectType2> --refkey <reference keys separated by comma>
racadm storage get <ObjectType2> --refkey <reference keys separated by comma> -o
racadm storage get <ObjectType2> --refkey <reference keys separated by comma> -o
 -p <property names separated by comma>

-------------------------------------------------------------------------------

Valid Options:

:<ObjectType1>     : possible object types like controllers,batteries ...
        controllers      : controllers info
        batteries        : batteries info
        vdisks           : vdisks info
        pdisks           : pdisks info
        fans             : fans info
        emms             : emms info
        tempprobes       : tempprobes info
        psus             : psus info
        enclosures       : enclosures info
:<ObjectType2>     : Possible objects info
        vdisks           : vdisks info
        pdisks           : pdisks info
        fans             : fans info
        emms             : emms info
        tempprobes       : tempprobes info
        psus             : psus info
        enclosures       : enclosures info
-o                 : Displays all the properties of the selected Key or Object.
-p                 : Displays the property names with filter.
FQDD's             : Displays all the properties of the FQDD's Key.
--refkey           : Displays all the reference key of Object type.
help               : Displays each object type help.

NOTE: Maximum Property names can be specified in -p option is = 10.
NOTE: Maximum FQDD's or refkey can be specified is = 3.

-------------------------------------------------------------------------------

Usage Examples:

racadm storage get controllers
racadm storage get psus
racadm storage get controllers -o
racadm storage get controllers -o -current
racadm storage get enclosures -o
racadm storage get controllers -o -p name,status
racadm storage get vdisks -o -p layout,status
racadm storage get controllers:RAID.INTEGRATED.0
racadm storage get emms:EMM.Slot.0:ENCLOSURE.EXTERNAL.0-0:RAID.INTEGRATED
.0
racadm storage get controllers:RAID.INTEGRATED.0 -p status
racadm storage get emms:EMM.Slot.0:ENCLOSURE.EXTERNAL.0-0:RAID.INTEGRATED
.0 -p status
racadm storage get batteries --refkey RAID.INTEGRATED.0
racadm storage get pdisks --refkey ENCLOSURE.EXTERNAL.0-0:RAID.INTEGRATED.0
racadm storage get batteries --refkey RAID.INTEGRATED.0 -o -p status,state,name
racadm storage get fans --refkey RAID.INTEGRATED.0 -o -p status,speed,name
```

- To generate and view information about the inventory of controllers, virtual disks, storage enclosures, and physical disk drives.
  - To generate and view information about the inventory of storage root node. This command retrieves the status of the inventory for storage root node.

    ```
    racadm storage get status
    raid Root Node Status : Ok
    ```

    - To generate and view information about the inventory of controllers connected to the server.

NOTE: If you set the NVMe mode to Non-Raid, then SWRAID RollupStatus is displayed as Unknown.

```
racadm storage get controllers
RAID.Integrated.1-1
```

The following command is an optimized version and displays the full controller objects along with their keys:

```
racadm storage get controllers -o
RAID.SL.3-1
   Status                                = Ok
   DeviceDescription                     = RAID Controller in SL 3
   RollupStatus                          = Ok
   Name                                  = PERC H965i Front (Embedded)
   FirmwareVersion                       = 8.8.0.0.18-30
   DriverVersion                         = 8.5.1.0.0
   RebuildRate                           = Not supported
   BgiRate                               = 30
   CheckConsistencyRate                  = 30
   ReconstructRate                       = 30
   PatrolReadRate                        = 30
   PatrolReadMode                        = Automatic
   PatrolReadState                       = Stopped
   CheckConsistencyMode                  = Normal
   LoadBalanceSetting                    = Auto
   CopybackMode                          = ON with SMART
   PreservedCache                        = Not Present
   CacheMemorySize                       = 8361 MB
   PersistHotspare                       = Enabled
   KeyID                                 = null
   SpindownUnconfiguredDrives            = Enabled
   SpindownHotspare                      = Disabled
   Timeintervalforspindown               = 30 (Minutes)
   SecurityStatus                        = Encryption Capable
   EncryptionMode                        = Disabled
   EncryptionCapability                  = Local Key Management and Secure
Enterprise Key Manager Capable
   SasAddress                            = 0x5F4EE0806EB89200
   PciDeviceId                           = 0xa5
   PciSubdeviceId                        = 0x22cc
   PciVendorId                           = 0x1000
   PciSubvendorId                        = 0x1028
   PciBus                                = 0xae
   PciDevice                             = 0x0
   PciFunction                           = 0x0
   BusWidth                              = Unknown
   SlotLength                            = Unknown
   SlotType                              = Unknown
   MaxCapableSpeed                       = 24 Gb/s
   LearnMode                             = Not supported
   T10PICapability                       = Not Capable
   SupportRAID10UnevenSpans              = Not Supported
   SupportEnhancedAutoForeignImport      = Supported
   EnhancedAutoImportForeignConfig       = Enabled
   SupportControllerBootMode             = Supported
   ControllerBootMode                    = Continue Boot On Error
   RealtimeConfigurationCapability       = Capable
   RaidMode                              = None
   SharedSlotAssignmentAllowed           = Not Applicable
   bootVD                                = None
   CurrentControllerMode                 = RAID
   SupportEnhancedHBA                    = Not Supported
   SupportsLKMtoSEKMTransition           = No
   AutoConfigBehavior                    = Off
   CPUAffinity                           = 0
   SPDMCapability                        = Capable
   SPDMVersion                           = 1.1.0.0
   SPDMDigestAndCertificate              = Enabled
   SPDMChallengeAuthResponse             = Enabled
   SPDMMeasurements                      = Enabled
   SPDMEncryption                        = Disabled
   SPDMDeviceCertStatus                  = Success
```

```
   SPDMDeviceChallengeStatus             = Success
```

The following command displays the filtered property values for all returned controller objects:

```
storage get controllers -o -p Name
RAID.Slot.2-1
Name              = PERC H965i Front (Embedded) (PCI Slot 2)
```

The following examples show the pending operation when used with `storage get <object>` commands: To list storage objects without displaying the properties:

- This operation displays `vdisk`, which has pending operation:

  ```
  racadm storage get vdisks -pending
  DISK.Virtual.267386880:RAID.Slot.5-1
  ```

- This operation displays controllers, which have pending operations:

  ```
  racadm storage get controllers -pending
  RAID.Integrated.1-1
  ```

- This operation displays `pdisk`, which has pending operation:

  ```
  racadm storage get pdisks -pending
  Disk.Bay.20:Enclosure.Internal.0-1:RAID.Integrated.1-1
  ```

- This operation displays enclosures, which have pending operations:

  ```
  racadm storage get enclosures -pending
  Enclosure.Internal.0-1:RAID.Integrated.1-1
  ```

  Changing the attribute by using `racadm set storage` or storage configuration command displays the storage object in the `-pending` command output. If there are no pending objects, the following error message is displayed:

  ```
  racadm storage get pdisks -pending
  ERROR: STOR0103 : No physical disks are displayed.
  Check if the server has power, physical disks are available, and physical
  disks are connected to the enclosure or backplane.
  ```

The following examples show the pending operation while listing the properties: By default, if there is no change in properties, the `-pending` command displays the current value. If the property has any pending objects, the `-pending` command displays the pending value.

- This operation displays the current state of `pdisk`, which is in `Ready` state:

  ```
  racadm>> racadm storage get pdisks -o -p state
  Disk.Bay.4:Enclosure.Internal.0-1:RAID.Integrated.1-1
     State                          = Ready
  ```

- This operation displays state of a `pdisk` on which `createvd` operation is pending:

  ```
  racadm>> racadm storage get pdisks -o -p state -pending
  Disk.Bay.4:Enclosure.Internal.0-1:RAID.Integrated.1-1
  ```

The following command provides the properties of the specified SATA/SAS physical disk as a member of HW controller:

NOTE: PDISK property RaidType is not applicable for HWRAID and will be displayed/populated with the value Unknown.

```
storage get pdisks:Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.1-1
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.1-1
   Status                         = Ok
   DeviceDescription              = Disk 0 in Backplane 1 of RAID Controller
in Slot 1
   RollupStatus                   = Ok
   Name                           = Solid State Disk 0:1:0
```

```
   State                              = Ready
   OperationState                     = Not Applicable
   PowerStatus                        = On
   Size                               = 3576.375 GB
   FailurePredicted                   = NO
   RemainingRatedWriteEndurance       = 100 %
   SecurityStatus                     = Not Capable
   BusProtocol                        = SAS
   MediaType                          = SSD
   AvailableSpare                     = 100 %
   DeviceSidebandProtocol             = NVMe-M11.0
   UsedRaidDiskSpace                  = 0.001 GB
   AvailableRaidDiskSpace             = 3576.375 GB
   Hotspare                           = NO
   Manufacturer                       = HGST
   ProductId                          = HUSTR7638ASS200
   Revision                           = S524
   SerialNumber                       = 4LV04PNX
   PartNumber                         = MY0C4DFRSN2007BK0007A00
   NegotiatedSpeed                    = 12.0 Gb/s
   ManufacturedDay                    = 2
   ManufacturedWeek                   = 47
   ManufacturedYear                   = 2017
   ForeignKeyIdentifier               = null
   SasAddress                         = 0x5000CCA08700468D
   WWN                                = 0x5000CCA08700468D
   FormFactor                         = 2.5 Inch
   RaidNominalMediumRotationRate      = 1
   T10PICapability                    = Not Capable
   BlockSizeInBytes                   = 512
   MaxCapableSpeed                    = 12 Gb/s
   RaidType                           = Unknown
   SystemEraseCapability              = CryptographicErasePD
   SelfEncryptingDriveCapability      = Not Capable
   EncryptionCapability               = Not Capable
   CryptographicEraseCapability       = Capable
   Certified                          = Yes
   NonRAIDDiskCachePolicy             = Not Applicable
   EncryptionProtocol                 = None
```

- The following command displays the output for Backplane 1 objects along with their properties:

```
racadm storage get enclosures:Enclosure.Internal.0-1:NonRAID.Integrated.1-1
   Enclosure.Internal.0-1:NonRAID.Integrated.1-1
   State                              = Ready
   Status                             = Ok
   DeviceDescription                  = Backplane 1 on Connector 0 of Integrated
Storage Controller 1
   RollupStatus                       = Ok
   Name                               = BP15G+ 0:1
   BayId                              = 1
   FirmwareVersion                    = 1.04
   SasAddress                         = 0x34CC98F03FF22300
   SlotCount                          = 8
   PCI Express Generation             = Not Applicable
```

- To generate and view information about the inventory of batteries that are connected to the controller, run the following command:

```
racadm storage get batteries
```

The following command is an optimized version and displays the batteries along with their keys:

```
racadm storage get batteries -o
Battery.Integrated.1:RAID.Integrated.1-1
Name                              = Battery
DeviceDescription                 = Battery on Integrated raid Controller 1
Status                            = Ok
State                             = Ready
```

The following command displays the filtered property values for all battery objects:

```
racadm storage get batteries -o -p Name
Battery.Integrated.1:RAID.Integrated.1-1
Name  = Battery
```

The following command displays all battery keys that are connected to the controllers:

```
racadm storage get batteries --refkey RAID.Integrated.1-1
Battery.Integrated.1:RAID.Integrated.1-1
```

The following command is an optimized and filtered version:

```
racadm storage get batteries --refkey RAID.Integrated.1-1 -o -p Name
Battery.Integrated.1:RAID.Integrated.1-1
Name                            = Battery
```

- To generate and view information about the inventory of virtual disks that are connected to the controller, run the following command:

```
racadm storage get vdisks
Disk.Virtual.0:RAID.Integrated.1-1
```

The following command displays all virtual disk keys that are connected to the controllers:

```
racadm storage get vdisks --refkey RAID.Integrated.1-1
Disk.Virtual.0:RAID.Integrated.1-1
```

The following command is an optimized and filtered version:

```
racadm storage get vdisks -o -p DeviceDescription,OperationalState
Disk.Virtual.0:RAID.Integrated.1-1
DeviceDescription        = Virtual Disk 0 on Integrated raid Controller 1
OperationalState         = Not applicable
```

- To generate and view information about the inventory of virtual disks, run the following command:

```
racadm storage get vdisks -o
Disk.Virtual.2:RAID.Integrated.1-1
Status                                                                          Ok
DeviceDescription        Virtual Disk 2 on Integrated RAID Controller 1
Name                     OS
RollupStatus             Ok
State                    Online
OperationalState         Not applicable
Layout                   Raid-0
Size                     278.88 GB
SpanDepth                1
AvailableProtocols       SAS
MediaType                HDD
ReadPolicy               Read Ahead
WritePolicy              Write Back
StripeSize               64K
DiskCachePolicy          Default
BadBlocksFound           NO
Secured                  NO
RemainingRedundancy      0
EnhancedCache            Not Applicable
T10PIStatus              Disabled
BlockSizeInBytes         512
```

- To generate and view information about the inventory of storage enclosures that are connected to the connector. This command displays all enclosure objects for the connector FQDD.

```
racadm storage get enclosures -o
Enclosure.Internal.0-1:RAID.Integrated.1-1
Status                                                                          Ok
State                    Ready
DeviceDescription        Backplane 1 on Connector 0 of Integrated RAID Controller 1
RollupStatus             Ok
```

```
Name                        BP13G+EXP 0:1
BayId                       1
FirmwareVersion             0.23
SasAddress                  0x500056B31234ABFD
SlotCount                   24
```

The following command displays all enclosure keys that are connected to the connectors:

```
racadm storage get enclosures --refkey RAID.Integrated.1-1
Enclosure.Internal.0-1:RAID.Integrated.1-1
```

The following command is an optimized and filtered version:

```
racadm storage get enclosures --refkey RAID.Integrated.1-1 -o -p Name
Enclosure.Internal.0-1:RAID.Integrated.1-1
Name = BP12G+EXP 0:1
```

- To generate and view information about the inventory of physical disk drives connected to the enclosure or backplanes, run the following command:

```
racadm storage get pdisks
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Integrated.1-1
```

The following command is an optimized version and displays the full controller objects along with their keys:

```
racadm storage get pdisks -o
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.4-1
   Status                              = Ok
   DeviceDescription                   = Disk 0 in Backplane 1 of RAID Controller in
Slot 4
   RollupStatus                        = Ok
   Name                                = Physical Disk 0:1:0
   State                               = Online
   OperationState                      = Not Applicable
   PowerStatus                         = Spun-Up
   Size                                = 1117.250 GB
   FailurePredicted                    = NO
   RemainingRatedWriteEndurance        = Not Applicable
   SecurityStatus                      = Not Capable
   BusProtocol                         = SAS
   MediaType                           = HDD
   UsedRaidDiskSpace                   = 200.001 GB
   AvailableRaidDiskSpace              = 917.250 GB
   Hotspare                            = NO
   Manufacturer                        = SEAGATE
   ProductId                           = ST1200MM0099
   Revision                            = ST31
   SerialNumber                        = WFK1BNX3
   PartNumber                          = CN0G2G54SGW0087A01RHA00
   NegotiatedSpeed                     = 12.0 Gb/s
   ManufacturedDay                     = 5
   ManufacturedWeek                    = 28
   ManufacturedYear                    = 2018
   ForeignKeyIdentifier                = null
   SasAddress                          = 0x5000C500B8ED7081
   FormFactor                          = 2.5 Inch
   RaidNominalMediumRotationRate       = 10000
   T10PICapability                     = Not Capable
   BlockSizeInBytes                    = 512
   MaxCapableSpeed                     = 12 Gb/s
   RaidType                            = None
   SystemEraseCapability               = SecureErasePD
   SelfEncryptingDriveCapability       = Not Capable
   EncryptionCapability                = Not Capable
   CryptographicEraseCapability        = Capable
```

The following command displays the filtered property values for all returned controller objects:

```
racadm storage get pdisks -o -p State
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Integrated.1-1
State = Online
```

The following command displays all physical disk drive keys that are connected to the enclosures:

```
racadm storage get pdisks --refkey RAID.Integrated.1-1
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Integrated.1-1
```

The following command is an optimized version and displays all disk objects for the enclosure FQDD:

```
racadm storage get pdisks -o
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Slot.4-1
   Status                          = Ok
   DeviceDescription               = Disk 0 in Backplane 1 of RAID Controller in
Slot 4
   RollupStatus                    = Ok
   Name                            = Physical Disk 0:1:0
   State                           = Online
   OperationState                  = Not Applicable
   PowerStatus                     = Spun-Up
   Size                            = 1117.250 GB
   FailurePredicted                = NO
   RemainingRatedWriteEndurance    = Not Applicable
   SecurityStatus                  = Not Capable
   BusProtocol                     = SAS
   MediaType                       = HDD
   UsedRaidDiskSpace               = 200.001 GB
   AvailableRaidDiskSpace          = 917.250 GB
   Hotspare                        = NO
   Manufacturer                    = SEAGATE
   ProductId                       = ST1200MM0099
   Revision                        = ST31
   SerialNumber                    = WFK1BNX3
   PartNumber                      = CN0G2G54SGW0087A01RHA00
   NegotiatedSpeed                 = 12.0 Gb/s
   ManufacturedDay                 = 5
   ManufacturedWeek                = 28
   ManufacturedYear                = 2018
   ForeignKeyIdentifier            = null
   SasAddress                      = 0x5000C500B8ED7081
   FormFactor                      = 2.5 Inch
   RaidNominalMediumRotationRate   = 10000
   T10PICapability                 = Not Capable
   BlockSizeInBytes                = 512
   MaxCapableSpeed                 = 12 Gb/s
   RaidType                        = None
   SystemEraseCapability           = SecureErasePD
   SelfEncryptingDriveCapability   = Not Capable
   EncryptionCapability            = Not Capable
   CryptographicEraseCapability    = Capable
```

The following command is an optimized and filtered version:

```
racadm storage get pdisks --refkey Enclosure.Internal.0-1:RAID.Integrated.1-1 -o -p
State
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Integrated.1-1
State = Online
```

- To generate and view information about the inventory of fans that are connected to the enclosure. The following command displays all the fan keys that are connected to the enclosures:

```
racadm storage get fans --refkey <Enclosure FQDDs separated
by comma>
```

The following command displays all the fan objects for the enclosure FQDD:

```
racadm storage get fans --refkey <Enclosure FQDDs separated
by comma > -o
```

```
racadm storage get fans --refkey <Enclosure FQDDs separated
by comma> -o -p <property names separated by comma>
```

- To generate and view information about the inventory of EMMs connected to the enclosure. The following command returns all the EMM keys that are connected to the enclosures:

```
racadm storage get emms -refkey <Enclosure FQDDs separated
by comma>
```

The following command is an optimized version and displays all the EMM objects for the enclosure FQDD:

```
racadm storage get emms --refkey <Enclosure FQDDs separated
by comma> -o
```

The following command is an optimized and filtered version:

```
racadm storage get emms --refkey <Enclosure FQDDs separated
by comma > -o -p <property names separated by comma>
```

- To generate and view information about the inventory of PSU connected to the enclosure. The following command displays all the PSUs connected to the enclosures:

```
racadm storage get psus --refkey <Enclosure FQDDs separated
by comma>
```

The following command is an optimized version and displays all the PSUs objects for the enclosure FQDD:

```
racadm storage get psus --refkey <Enclosure FQDDs separated
by comma > -o
```

The following command is an optimized and filtered version:

```
racadm storage get psus --refkey <Enclosure FQDDs separated
by comma> -o -p <property names separated by comma>
```

- To get the list of enclosures and properties of the PCIeSSD enclosure.
  - The following command provides the list of enclosures:

```
racadm storage get enclosures
Enclosure.Internal.0-1:RAID.Integrated.1-1\
Enclosure.Internal.0-1:PCIeExtender.Slot.3
```

  - The following command provides the properties of the specified PCIeSSD enclosure:

```
racadm storage get enclosures:Enclosure.Internal.0-1:PCIeExtender.Slot.3
Enclosure.Internal.0-1:PCIeExtender.Slot.3
RollupStatus = Ok
DeviceDescription = Enclosure.Internal.0-1:PCIeExtender.Slot.3
Name = PCIe SSD BP 1
SlotCount = 4
FirmwareVersion = 0.80
PcieSSDBusId = 182
PcieSSDDeviceId = 0
PcieSSDFunctionId = 0
```

  - To get the list of physical disks and properties of the specified PCIeSSD physical disk. The following command provides the list of physical disks:

```
racadm storage get pdisks
Disk.Bay.0:Enclosure.Internal.0-1:RAID.Integrated.1-1
Disk.Bay.1:Enclosure.Internal.0-1:RAID.Integrated.1-1
Disk.Bay.2:Enclosure.Internal.0-1:RAID.Integrated.1-1
Disk.Bay.3:Enclosure.Internal.0-1:RAID.Integrated.1-1
Disk.Bay.4:Enclosure.Internal.0-1:RAID.Integrated.1-1
```

```
Disk.Bay.5:Enclosure.Internal.0-1:RAID.Integrated.1-1
Disk.Bay.8:Enclosure.Internal.0-1:PCIeExtender.Slot.3
Disk.Bay.6:Enclosure.Internal.0-1:PCIeExtender.Slot.3
Disk.Bay.7:Enclosure.Internal.0-1:PCIeExtender.Slot.3
Disk.Bay.9:Enclosure.Internal.0-1:PCIeExtender.Slot.3
```

The following command provides the properties of the specified PCIe SSD physical disk as a member of SW RAID:

```
racadm storage get pdisks:Disk.Bay.0:Enclosure.Internal.0-1
Disk.Bay.0:Enclosure.Internal.0-1
   Status                          = Ok
   DeviceDescription               = PCIe SSD in Slot 0 in Bay 1
   Name                            = PCIe SSD in Slot 0 in Bay 1
   State                           = Ready
   Size                            = 931.250 GB
   BusProtocol                     = NVMe
   MediaType                       = SSD
   AvailableSpare                  = 100 %
   Model                           = Dell Express Flash NVMe P4510 1TB SFF
   ProductId                       = a54
   SerialNumber                    = PHLJ9106019V1P0FGN
   DeviceProtocol                  = NVMe-MI1.0
   DeviceSidebandProtocol          = NVMe-M11.0
   Manufacturer                    = Intel
   PCIeNegotiatedLinkWidth         = x2
   PCIeCapableLinkWidth            = x4
   MaxCapableSpeed                 = 8 GT/s
   NegotiatedSpeed                 = 8 GT/s
   FormFactor                      = 2.5 Inch
   Revision                        = VDV1DP23
   RemainingRatedWriteEndurance    = 100 %
   FailurePredicted                = NO
   PcieSSDBusId                    = 101
   PcieSSDDeviceId                 = 0
   PcieSSDFunctionId               = 0
   RAIDStatus                      = Ready
   HotSpareStatus                  = No
   AvailableRaidDiskSpace          = 930.750 GB
   FreeSizeInBytes                 = 930.75 GB
   RaidType                        = Windows Software RAID
   SasAddress                      = Not Applicable
   WWN                             = 0x3b5cd8a65c06bfd6
   Certified                       = Not Applicable
   NonRAIDDiskCachePolicy          = Not Applicable
   OperationState                  = Not Applicable
   PowerStatus                     = On
   SecurityStatus                  = Not Capable
   UsedRaidDiskSpace               = 0.500 GB
   T10PICapability                 = Not Capable
   BlockSizeInBytes                = 512
   SystemEraseCapability           = CryptographicErasePD
   EncryptionCapability            = Not Capable
   CryptographicEraseCapability    = Capable
   EncryptionProtocol              = None
   PartNumber                      =
   ForeignKeyIdentifier            = null
   RaidNominalMediumRotationRate   = 0
```

To get the list of controllers and properties of the PCIeSSD controller: The following command provides the list of controllers:

```
racadm storage get controllers
RAID.Integrated.1-1
PCIeExtender.Slot.3
```

The following command provides the properties of the specified PCIe SSD controller:

```
racadm storage get controllers:PCIeExtender.Slot.3
PCIeExtender.Slot.3
RollupStatus = Ok
DeviceDescription = PCIe Extender in PCIe Slot 3
```

```
Status = Ok
Name = PCIeExtender 3 (PCI Slot 3)
```

The following command provides the properties of the specified PCIe SSD physical disk as a member of HW controller:

```
racadm storage get pdisks:Disk.Bay.4:Enclosure.Internal.0-1:RAID.SL.8-1
Disk.Bay.4:Enclosure.Internal.0-1:RAID.SL.8-1
   Status                          = Ok
   DeviceDescription               = Disk 4 in Backplane 1 of RAID Controller in
SL 8
   Name                            = Solid State Disk 0:1:4
   State                           = Ready
   Size                            = 931.000 GB
   BusProtocol                     = PCIe
   MediaType                       = SSD
   AvailableSpare                  = 100 %
   Model                           = Dell Express Flash NVMe P4510 1TB SFF
   ProductId                       = Dell Express Flash NVMe P4510 1TB SFF
   SerialNumber                    = BTLJ928309UK1P0FGN
   DeviceProtocol                  = NVMe-MI1.0
   DeviceSidebandProtocol          = NVMe-M11.0
   Manufacturer                    = Intel
   PCIeNegotiatedLinkWidth         = x2
   PCIeCapableLinkWidth            = x4
   MaxCapableSpeed                 = 8 GT/s
   NegotiatedSpeed                 = 8 GT/s
   FormFactor                      = 2.5 Inch
   Revision                        = VDV1DP23
   RemainingRatedWriteEndurance    = 100 %
   FailurePredicted                = NO
   PcieSSDBusId                    = Not Applicable
   PcieSSDDeviceId                 = Not Applicable
   PcieSSDFunctionId               = Not Applicable
   RAIDStatus                      = Ready
   HotSpareStatus                  = No
   AvailableRaidDiskSpace          = 931.000 GB
   FreeSizeInBytes                 = 931.00 GB
   RaidType                        = None
   SasAddress                      = Not Applicable
   WWN                             = 0x140ce5ce4d25c
   Certified                       = Yes
   NonRAIDDiskCachePolicy          = Not Applicable
   OperationState                  = Not Applicable
   PowerStatus                     = On
   SecurityStatus                  = Not Capable
   UsedRaidDiskSpace               = 0.001 GB
   T10PICapability                 = Not Capable
   BlockSizeInBytes                = 512
   SystemEraseCapability           = CryptographicErasePD
   EncryptionCapability            = Not Capable
   CryptographicEraseCapability    = Capable
   EncryptionProtocol              = None
   PartNumber                      = CN0FJ9YXPESIT9AD010TA02
   ForeignKeyIdentifier            = null
   RaidNominalMediumRotationRate   = 0
```

Configuration

- To view the help details for a configuration command, run the following command:

```
racadm>> racadm storage help createvd
Storage configuration of hardware RAID connected to the system.

Usage:
racadm storage createvd:<Controller FQDD> -rl {r0|r1|r5|r6|r10|r50|r60}[-wp {wt|wb|
wbf}] [-rp {nra|ra|ara}]
[-ss {1k|2k|4k|8k|16k|32k|64k|128k|256k|512k|1M|2M|4M|8M|16M}]
-pdkey:<comma separated PD FQDD> [-dcp {enabled|disabled|default}]
[-name <VD name>] [-size <VD size>{b|k|m|g|t}] [-T10PIEnable]
------------------------------------------------------------------------------

Options :
-rl                : Set the RAID Level
```

```
 r0                  : RAID 0  - Striping
 r1                  : RAID 1  - Mirroring
 r5                  : RAID 5  - Striping with Parity
 r6                  : RAID 6  - Striping with Extra Parity
 r10                 : RAID 10 - Spanned Striping with Mirroring
 r50                 : RAID 50 - Spanned Striping with Parity
 r60                 : RAID 60 - Spanned Striping with Extra Parity
 -wp {wt | wb | wbf}    : Set the write policy to Write Through or Write Back or
Write Back Force
 -rp {nra|ra|ara}       : Set the read policy to No Read Ahead, Read Ahead, Adaptive
Read Ahead
 -ss                    : Specify the stripe size to use
 -pdkey:<PD FQDD list>  : The PDs to use in the VD.
 -dcp                   : Set the Disk Cache Policy in the VD
 enabled           : Enabled - Allow the disk to use it's cache
 disabled          : Disabled - Disallow the disk from using it's cache
 default           : Default - Use the default cache policy.
 SAS Drives  - Use Disabled by Default
 SATA Drives - Use Enabled by Default
 -name <VD name>        : The name to give the VD
 -size <VD size>        : The size of the VD
 b                 : Specify the size in bytes
 k                 : Specify the size in kilobytes
 m                 : Specify the size in megabytes
 g                 : Specify the size in gigabytes
 t                 : Specify the size in terabytes
 -sc               : Spandepth: Number of spans in a virtual disk

Note:
 - This option is mandatory for hybrid raid level like RAID 10, RAID50 and RAID60.
 - The default value is one for basic RAID levels.
 - If RAID10 Uneven Span is Supported then for RAID10:
 -    -sc option will be optional.
 -    Will allow only 0 value for this option.
 -T10PIEnable                : To create a VD with PI
-------------------------------------------------------------------------------
Description :
Create a VD.
-------------------------------------------------------------------------------

Examples :
racadm storage createvd:RAID.Integrated.1-1 -rl r0
-pdkey:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
```

- To create, delete, and secure the virtual disks.
  - The following command creates a virtual disk:

    ```
    racadm storage createvd:RAID.Integrated.1-1 -rl r0
    -pdkey:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
    ```

  - The following command starts an initialization operation on a specified virtual disk:

    ```
    racadm storage init:Disk.Virtual.0:RAID.Integrated.1-1 -speed fast
    ```

  - The following command deletes the specified virtual disk:

    ```
    racadm storage deletevd:Disk.Virtual.0:RAID.Integrated.1-1
    ```

  - The following command encrypts the specified virtual disk:

    ```
    racadm storage encryptvd:Disk.Virtual.0:RAID.Integrated.1-1
    ```

    NOTE: Virtual disk must be created with either SED or NVMe drives behind PERC.

  - The following command assigns Local Key Management (LKM) security key for controller:

    ```
    racadm storage createsecuritykey:RAID.Integrated.1-1 -key <Key id> -xxx <passphrase>
    ```

- The following command modifies Local Key Management (LKM) security key for controller:

```
racadm storage modifysecuritykey:RAID.Integrated.1-1 -key <Key id> -oldpasswd
<oldpassphrase> -newpasswd <newpassphrase>
```

- The following command deletes Local Key Management (LKM) security key for controller:

```
racadm storage deletesecuritykey:RAID.Integrated.1-1
```

- To convert the physical disk drive and assign hotspare.
  - The following command converts the specified nonstorage physical disk drive to a storage capable physical disk drive:

```
racadm storage converttoraid:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
```

  - The following command converts the specified physical disk drive to a nonstorage physical disk drive:

```
racadm storage
converttononraid:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
```

  - The following command assigns or unassigns a global or dedicated Hot spare:

```
racadm storage hotspare:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
-assign no
```

```
racadm storage hotspare:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
-assign yes -type ghs
```

```
racadm storage hotspare:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
-assign yes -type dhs -vdkey:Disk.Virtual.0:RAID.Integrated.1-1
```

  - The following command converts the specified nonstorage physical disk to a storage capable physical disk with windows meta data

```
racadm storage converttoraid:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
-mdtype windows
```

- To reset, clear, and import the storage configuration to the controller.
  - The following command imports the current foreign configuration from the controller:

```
racadm storage importconfig:RAID.Integrated.1-1
```

  - The following command deletes all virtual disks and unassigns hot spare from the associated controller:

```
racadm storage resetconfig:RAID.Integrated.1-1
```

  - The following command clears the current foreign configuration from the controller:

```
racadm storage clearconfig:RAID.Integrated.1-1
```

NOTE: After a `resetconfig` or `clearconfig` operation, the data cannot be reversed.

- To blink or unblink the PCIeSSD device.
  - The following command blinks the specified PCIeSSD device:

```
racadm storage blink:Disk.Bay.8:Enclosure.Internal.0-1:PCIeExtender.Slot.3
STOR095 : Storage operation is successfully completed.
```

  - The following command unblinks the specified PCIeSSD device:

```
racadm storage unblink:Disk.Bay.8:Enclosure.Internal.0-1:PCIeExtender.Slot.3
STOR095 : Storage operation is successfully completed.
```

- To prepare the specified PCIeSSD device for removal, run the following command:

```
racadm storage preparetoremove: Disk.Bay.8:Enclosure.Internal.0-1:PCIeExtender.Slot.3
STOR089 : Successfully accepted the storage configuration operation.
To apply the configuration operation, create a configuration job with --realtime
```

```
option.
To create the required commit jobs, run the jobqueue command.
For more information about the jobqueue command, enter the RACADM command "racadm
help jobqueue”
```

- To perform a cryptographic erase operation on the specified PCIeSSD device, run the following command:

```
racadm storage secureerase: Disk.Bay.8:Enclosure.Internal.0-1:PCIeExtender.Slot.3
RAC1040 : Successfully accepted the storage configuration operation.
To apply the configuration operation, create a configuration job, and then restart
the server.
To create the required commit and reboot jobs, run the jobqueue command.
For more information about the jobqueue command, enter the RACADM command "racadm
help jobqueue”
```

- To perform a cryptographic erase operation on PCIeSSD, SED or ISE (Instant Scramble Erase) device, run the following command:

```
racadm storage cryptographicerase:<SED FQDD>
```

- To request iDRAC to rekey only a specific storage controller:

```
racadm storage rekey:RAID.Integrated.1-1
```

- To enable security on the HBA controller:

```
racadm storage security:NonRAID.Slot.3-1 -enable
```

- To disable security on the HBA controller:

```
racadm storage security:NonRAID.Slot.3-1 -disable
```

- To enable security on a physical disk:

```
racadm storage encryptpd:Disk.Bay.0:Enclosure.Internal.0-0:RAID.Integrated.1-1
```

- Export the hwidentity of a controller to a CIFS or NFS share:
  - The following command exports the hwidentity of a controller to a CIFS share:

    ```
    racadm storage exportcertificate:RAID.SL.1-1 -l //192.168.0.130/share -u myuser -p
    mypass -f file -t 0
    ```

  - The following command exports the hwidentity of a controller to a NFS share:

    ```
    racadm storage exportcertificate:RAID.SL.1-1 -l 192.168.0.130:/myshare -u myuser -p
    mypass -f file -t 0
    ```

Storage Properties

This section provides details for storage controller, pdsik and vdisk properties.

Table 88. Storage controller properties

Property Name	Description	Possible values
Status	This property specifies the current status of the controller	• Unknown • Ok • Warning • Failed
DeviceDescription	This property specifies the type and location of controller	An alphanumeric string
RollupStatus	Rollup status indicates combined status of controller and its attached components	• Unknown • Ok • Warning • Failed

Table 88. Storage controller properties (continued)

Property Name	Description	Possible values
Name	This property specifies the name of the controller	A string value that comes directly from the device
PciSlot	This property specifies if the controller is inserted in any PCI slot	An integer value
FirmwareVersion	This property specifies the current firmware version of the controller	An alphanumeric value. Other characters such as "." and "-" are also allowed
RebuildRate	The Rebuild Rate is the percentage of the system's resources dedicated to rebuilding a failed disk when a rebuild is necessary	• "Not supported" • An integer value
BgiRate	The Background Initialization (BGI) rate is the percentage of the system's resources dedicated to performing the background initialization of a virtual disk after it is created	• "Not supported" • An integer value
CheckConsistencyRate	The Check Consistency rate is the percentage of the system's resources dedicated to performing a check consistency on a redundant virtual disk	• "Not supported" • An integer value
ReconstructRate	The Reconstruct Rate is the percentage of the system's resources dedicated to reconstructing a disk group after adding a physical disk or changing the RAID level of a virtual disk residing on the disk group	• "Not supported" • An integer value
PatrolReadRate	The Patrol Read Rate is the percentage of the system's resources dedicated to perform Patrol Read	• "Not supported " • An integer value
PatrolReadMode	Patrol Read is a feature for identifying disk errors in order to avoid disk failures, data loss or corruption. The Patrol Read only runs on disks that are being used in a virtual disk or that are hot spares	• Not Supported • Disabled • Automatic • Manual • Unknown
PatrolReadState	Patrol Read State specifies the current Patrol Read operation state	• Stopped • Running • Unknown
CheckConsistencyMode	Check Consistency feature is used to verify the accuracy of the redundant (parity) information	• Not Supported • Normal • Stop On Error • Unknown
LoadBalanceSetting	This property represents the ability to automatically use both controller ports connected to the same enclosure to route I/O requests	• Not Supported • Auto • Disabled • Unknown
CopybackMode	This property represents the mode of restoring configuration of a virtual disk when a failed physical disk is replaced in an array	• Not supported • On • ON with SMART • OFF • Unknown

Table 88. Storage controller properties (continued)

Property Name	Description	Possible values
PreservedCache	This property indicates if the controller has preserved cache in it or not	• Not Present • Present • Unknown
CacheMemorySize	This property specifies the size of the preserved cache present in the controller	• "Not supported " • Integer value in MB
PersistHotSpare	This property enables or disables the persistent hotspare of the controller	• Disabled • Enabled • Not Applicable
KeyID	This property specifies the security KeyId assigned when security on the controller is enabled	• "Null" • Some string value
SpindownUnconfiguredDrives	This property spins down the unconfigured disks if they are unattended for a specified interval of time	• Disabled • Enabled • Not Applicable
SpindownHotspare	This property spins down the hot spares if no read-write operation takes place on the hot spare in a specified interval of time.	• Disabled • Enabled • Not Applicable
Timeintervalforspindown	This property sets the time interval after which the hot spares and unconfigured drives spins down	An integer value in minutes
SecurityStatus	This property specifies the controller security capability and current controller security status	• Not Capable • Encryption Capable • Security Key Assigned • Disabled • Enabled
EncryptionMode	This property represents the encryption mode on the controller. It could be used to set the encryption mode to Local Key Management or Dell Key Management on the controller through Server Configuration Profile (SCP) feature. It is configurable through Server Configuration Profile (SCP) feature only.	• None • Local Key Management • Secure Enterprise Key Manager • Secure Enterprise Key Manager Pending • Secure Enterprise Key Manager Failed • Unsupported • Not Applicable
EncryptionCapability	This property specifies the controller security capability	• None • Local Key Management Capable • Secure Enterprise Key Manager Capable • Local Key Management and Secure Enterprise Key Manager Capable • Capable • Not Capable
SasAddress	This property specifies the SAS address of the controller	• "Not Applicable" • A hexadecimal string
PciDeviceId	This property specifies the PCI Device Id assigned to the controller inserted in PCI slot	A hexadecimal string

Table 88. Storage controller properties (continued)

Property Name	Description	Possible values
PciSubdeviceId	This property specifies the PCI sub device Id assigned to the controller inserted in the PCI slot	A hexadecimal string
PciVendorId	This property specifies the PCI vendor Id assigned to the controller inserted in the PCI slot	A hexadecimal string
PciSubvendorId	This property specifies the PCI sub vendor Id assigned to the controller inserted in the PCI slot	A hexadecimal string
PciBus	This property specifies the PCI Bus details of the controller inserted in the PCI slot	A hexadecimal string
PciDevice	This property specifies the PCI device details of the controller inserted in the PCI slot	A hexadecimal string
PciFunction	This property specifies the PCI function details of the controller inserted in the PCI slot	A hexadecimal string
BusWidth	This property specifies the PCI bus width details of the controller inserted in the PCI slot	• Other • Unknown • 1x or x1 • 2x or x2 • 4x or x4 • 8x or x8 • 12x or x12 • 16x or x16 • 32x or x32
SlotLength	This property specifies the PCI slot length of the controller inserted in the PCI slot	• Other • Unknown • Short Length • Long Length • 2.5 Drive Form Factor • 3.5 Drive Form Factor
SlotType	This property specifies the PCI slot type of the controller inserted in the PCI slot	• Other, • Unknown • PCI Express • PCI Express x1 • PCI Express x2 • PCI Express x4 • PCI Express x8 • PCI Express x16 • PCI Express Gen2 • PCI Express Gen2 x1 • PCI Express Gen2 x2 • PCI Express Gen2 x4 • PCI Express Gen2 x8 • PCI Express Gen2 x16 • PCI Express Gen3 • PCI Express Gen3 x1 • PCI Express Gen3 x2 • PCI Express Gen3 x4

Table 88. Storage controller properties (continued)

Property Name	Description	Possible values
		• PCI Express Gen3 x8 • PCI Express Gen3 x16 • PCI Express Gen4 • PCI Express Gen4 x1 • PCI Express Gen4 x2 • PCI Express Gen4 x4 • PCI Express Gen4 x8 • PCI Express Gen4 x16 • PCI Express Gen5 • PCI Express Gen5 x1 • PCI Express Gen5 x2 • PCI Express Gen5 x4 • PCI Express Gen5 x8 • PCI Express Gen5 x16
MaxCapableSpeed	This property specifies the maximum drive capable speed that the controller supports	• 1.5 Gb/s • 3.0 Gb/s • 6.0 Gb/s • 12.0 Gb/s • 2.5 GT/s • 5 GT/s • 8 GT/s • 16 GT/s • Unknown • 24 Gb/s • 32 GT/s
LearnMode	The Battery Learn Mode controls a RAID Controller's Battery Learn Cycle	• Not supported • Automatic • Warn • Disabled • Unknown
T10PICapability	This property specifies if the controller supports T10 PI. This is a read only property	• Not capable • Capable • Unknown
SupportRAID10UnevenSpans	This property specifies if the controller supports uneven spans for RAID 10.This is a read only property	• Not Supported • Supported • Unknown
SupportEnhancedAutoForeignImport	This property specifies if the controller supports enhanced auto import of foreign configuration. This is a read only property	• Not Supported • Supported • Unknown
EnhancedAutoImportForeignConfig	This property specifies Enhanced Auto Import of Foreign Configuration setting on the controller	• Not Supported • Disabled • Enabled
SupportControllerBootMode	This property specifies if the controller supports setting of controller boot mode. This is a read only property	• Not Supported • Supported • Unknown
ControllerBootMode	This property indicates the Controller Boot Mode setting on the controller	• User Mode • Continue Boot on Error • Headless Mode • Continue on Error

Table 88. Storage controller properties (continued)

Property Name	Description	Possible values
		• Headless Safe Mode • Safe Mode on Error • Unknown
RealtimeConfigurationCapability	This property specifies if controller supports side band monitoring	• Capable • Incapable
RaidMode	This property specifies the meta data mode of the controller. It is applicable only for SW RAID controller	• None • Linux • Windows • Mixed
SharedSlotAssignmentAllowed	This property specifies if controller supports slot assignment sharing	• Yes • No • Not Applicable
BootVD	This property specifies the FQDD of the virtual disk which is set to Boot Vd under this controller	• "None" • String value displaying the FQDD of Virtual disk
CurrentControllerMode	This property specifies if current controller mode is RAID or HBA/ EnhancedHBA. If enhanced HBA is supported by PERC,then this object will display EnhancedHBA otherwise it will display HBA	• Not Supported • RAID • HBA • EnhancedHBA • NONE
SupportEnhancedHBA	This property specifies if the controller supports enhanced Host Bus Adapter mode	• Supported • Not Supported
SupportsLKMtoSEKMTransition	This property specifies if the controller supports seamless LKM to SEKM transition	• Yes • No
AutoConfigBehavior	This property specifies the current value of the auto configuration behavior of the controller	• Non-RAID Disk • RAID0 • OFF • RAID-0 Write Back • RAID-0 Write Through • Secured RAID-0 Write Through • Secured RAID-0 Write Back • Secured Non-RAID Disk • Not Applicable
CPUAffinity	The controller CPU affinity indicates which CPU is managing the controller	• "Not applicable" • An integer value

Table 89. Storage PDisk Properties

Property Name	Description	Possible values
Status	This property specifies the current status of the physical disk	• Unknown • Ok • Warning • Failed
DeviceDescription	This property specifies the type and location of the physical disk	An alphanumeric value
RollupStatus	This property specifies the overall health status of the physical disk	• Unknown • Ok

Table 89. Storage PDisk Properties (continued)

Property Name	Description	Possible values
		• Warning • Failed
Name	This property specifies the name of the physical disk	A string value
State	This property specifies the current state of the physical drive	• Unknown • Ready • Online • Foreign • Offline • Blocked • Failed • Degraded • Non-Raid • Removed • Charging • Learning • Low Power • Over Temp • Under Temp • Read Only • Physical Layer Failure • Transport Layer Failure • Protocol Command Failure • Sanitize In Progress • Sanitize failed • Unusable • Not Applicable"
PowerStatus	This property specifies the current state of spinning platters of the drive	• Spun-Up • Spun-Down • Transition • On • Unknown
Size	This property specifies the size of the physical drive	An alphanumeric string value. Space and "." are also allowed
BusProtocol	This property specifies the bus communication protocol of the drive	• SAS • SATA • Unknown • NVMe • PCIe
MediaType	This property specifies the media type of the drive	• HDD • SSD • Unknown
AvailableSpare	This property specifies how many blocks have failed and have been reallocated with reserved blocks	• "Not Applicable" • An integer value
Model	This property specifies the drive model	• "Unknown" • String value
ProductId	This property specifies the drive product ID flashed during production	• "Not Available" • String value

Table 89. Storage PDisk Properties (continued)

Property Name	Description	Possible values
SerialNumber	This property specifies the serial number of the drive	• "Unknown" • Alphanumeric value
DeviceSidebandProtocol	This property specifies the protocol used for drive's side band communication	• "Not Available"
Manufacturer	This property specifies the manufacturer of the drive	An alphanumeric value. Spaces are also allowed
PCIeNegotiatedLinkWidth	This property specifies the maximum PCI link width that the drive supports for communication	• x1 • x2 • x4 • x8 • x16 • x32 • Not Applicable
PCIeCapableLinkWidth	This property specifies the current PCI link width used for drive communication	• x4 • x8 • x16 • Not Applicable
MaxCapableSpeed	This property specifies the maximum speed that the drive supports for communication	• Unknown • 1.5 Gb/s • 3 Gb/s • 6 Gb/s • 12 Gb/s • 24 Gb/s
NegotiatedSpeed	This property specifies the current speed used for drive communication	• Unknown • 2.5 GT/s • 5 GT/s • 8 GT/s • 16 GT/s • 32 GT/s
FormFactor	This property specifies the physical form factor of the drive	• Unknown • 1.8 Inch • 2.5 Inch • 3.5 Inch • add-in card • M.2 • EDSFF-E1.L • E3.S • E3.S 2T • E3.L • E3.L 2T
Revision	This property specifies the current firmware version flashed on the drive	An integer value
RemainingRatedWriteEndurance	This property specifies the number of program/erase (P/E cycles) that can be applied to a block of flash memory before the storage media becomes unreliable	• Unavailable • Not Applicable • Dynamic value
FailurePredicted	This property indicates if a failure is predicted in the drive or not	• Unavailable • NO

Table 89. Storage PDisk Properties (continued)

Property Name	Description	Possible values
		• YES • Unknown
PcieSSDBusId	This property specifies the PCIe Bus ID	• "Not Applicable" • An integer value
PcieSSDDeviceId	This property specifies the PCIe Device ID	• "Not Applicable" • An integer value
PcieSSDFunctionId	This property specifies the PCIe function ID	• "Not Applicable" • An integer value
ErrorRecoverable	This property specifies if the drive is capable of recovering from errors	• Yes • No • Not Applicable
RAIDStatus	This property specifies the current state of the drive	• Unknown • Ready • Online • Foreign • Offline • Blocked • Failed • Degraded • Non-RAID
HotSpareStatus	This property specifies if the drive is assigned as Hot spare or not. If drive is assigned as Hot spare, it will display if the drive is dedicated or global hot spare	• No • Dedicated • Global
AvailableRaidDiskSpace	This property specifies the free space available in the drive	An alphanumeric value. Space and "."values are also allowed
FreeSizeInBytes	This property specifies the free space available in the drive in bytes	An alphanumeric value. Space and "." values are also allowed
RaidType	This property specifies the RAID type of the drive	• Unknown • MD Software RAID • Windows Software RAID
SasAddress	This property specifies the SAS address of the physial drive	• "Not Applicable" • An alphanumeric value
Certified	This property specifies if the drive is certified	• No • Yes • Not Applicable
NonRAIDDiskCachePolicy	When this feature is enabled, the physical disk writes data to the physical disk cache before writing it to the physical disk. Because it is faster to write data to the cache than to a disk, enabling this feature improves system performance.	• Default • Enabled • Disabled • Unknown • Not Applicable
OperationState	This property specifies if there is any operation in progress on the drive. If an operation is in progress, it displays the operation in progress	• Unknown • Ready • Online • Offline • Failed • Foreign

Table 89. Storage PDisk Properties (continued)

Property Name	Description	Possible values
		• Blocked • Non-Raid • Removed • Copy Back • Clear • Rebuilding • Not Applicable"
PowerStatus	This property specifies the current state of the spinning platters of the drive	• Spun-Up • Spun-Down • Transition • On • Unknown
SecurityStatus	This property specifies the current security status of the drive	• Encryption Capable • Secured • Locked • Secured_by_Foreign • Not Capable • Unknown
UsedRaidDiskSpace	This property specifies the amount of used space in the drive	An alphanumeric value. Space and "." values are also allowed
T10PICapability	This property specifies if the drive is T10 PI capable	• Not Capable • Capable • Unknown
SystemEraseCapability	This property specifies the type of erase drive supported	• Not Supported • OverwritePD • CryptographicErasePD • Unknown
EncryptionCapability	This property specifies if the security can be enabled on the drive	• Capable • Not Capable
EncryptionProtocol	This property specifies the security protocol used by the drive when the security is enabled	• None • TCG Enterprise SSC • TCG Opal SSC
PartNumber	This property specifies the part number of the physical drive	An alphanumeric value. Hyphen (-) is also allowed
ForeignKeyIdentifier	This property is present in the drive to identify if the drive becomes foreign	An alphanumeric value
RaidNominalMediumRotationRate	This property specifies the nominal medium rotation rate	An integer value
CPUAffinity	CPU affinity property indicates which CPU is managing the drive	• "Not supported" • An integer value

Table 90. Storage VDisk Properties

Property Name	Description	Possible values
Status	This property specifies the current status of the virtual disk	• Unknown • Ok • Warning • Failed

Table 90. Storage VDisk Properties (continued)

Property Name	Description	Possible values
DeviceDescription	This property specifies the type and location of the virtual disk	An alphanumeric string
Name	This property specifies the name of the virtual disk	String value
RollupStatus	This property specifies the overall health status of the virtual disk	• Unknown • Ok • Warning • Failed
State	This property displays the current virtual disk state	• Unknown • Ready • Online • Foreign • Offline • Blocked • Failed • Degraded • Non-Raid • Removed • Charging • Learning • Low Power • Over Temp • Under Temp • Read Only • Physical Layer Failure • Transport Layer Failure • Protocol Command Failure • Sanitize In Progress • Sanitize failed • Unusable • Not Applicable
OperationalState	This property specifies if any operations are in progress on virtual disk and the current status	• Ready • Degraded • Failed • Resyncing • Reconstructing • Background Initialization • Initializing • Unknown • Not applicable • Online
Layout	This property displays the virtual disk layout	• Volume • RAID-0 • RAID-1 • RAID-2 • RAID-3 • RAID-4 • RAID-5 • RAID-6 • RAID-7 • RAID-8

Table 90. Storage VDisk Properties (continued)

Property Name	Description	Possible values
		• RAID-9 • RAID-10 • RAID-30 • RAID-50 • RAID-60 • ConcatRaid-1 • ConcatRaid-5 • VendorRaid • Unknown
Size	This property displays the size of the virtual disk	An alphanumeric value. Space and "." values are also allowed
SpanDepth	This property specifies the current span depth of the virtual disk	An integer value
AvailableProtocols	This property specifies the communication protocol of drives that are part of virtual disk	• SAS • SATA • Unknown • NVMe • PCIe
MediaType	This property specifies the media type of drives that are part of virtual disk	• HDD • SSD • Unknown
ReadPolicy	This property specifies whether the controller should read sequential sectors of the virtual disk when seeking data	• Read Ahead • Adaptive Read Ahead • No Read Ahead • Unknown
WritePolicy	This property specifies whether the controller sends a write request completion signal as soon as the data is in the cache or after it has been written to disk	• Write Back • Write Through • Force Write Back • Unknown
StripeSize	This property displays the stripe size of the virtual disk. It is configurable through Server Configuration Profile (SCP) feature only	• Default • 512B • 1K • 2K • 4K • 8K • 16K • 32K • 64K • 128K • 256K • 512K • 1MB • 2MB • 4MB • 8MB • 16MB • Unknown
DiskCachePolicy	This property is used to set the physical disk caching policy of all members of a virtual disk. When this feature is enabled,	• Default • Enabled

Table 90. Storage VDisk Properties (continued)

Property Name	Description	Possible values
	the physical disk writes data to the physical disk cache before writing it to the physical disk	• Disabled • Unknown • Not Applicable
BadBlocksFound	This property indicates if the virtual disk has any bad blocks	• Yes • No • Unknown
Secured	This property indicates if the virtual disk secured or not	• Yes • No • Unknown
RemainingRedundancy	This property specifies how much redundancy is remaining in virtual disk	An integer value
EnhancedCache	This property specifies if the virtual disk supports cache enhancement	• Yes • Not Applicable
T10PIStatus	This property displays the virtual disk T10PI Status	• Disabled • Enabled • Unknown
BlockSizeInBytes	This property displays the block size of the virtual disk	An integer value

supportassist

Table 91. supportassist command parameters and options

supportassist	
Description	Allows you to perform supportassist operations such as: • `collect` : Collects the SupportAssist data and exports to local share, or remote share, or Dell site depending on the parameters given in the command. You can specify the type of the logs to be in the collect command. To run this command, the user must accept the End User License Agreement (EULA). **NOTE:** When performing the `collect` operationon then chassis system, ensure that you use the `-t Debug` option. • `exportlastcollection` : Exports the last collected SupportAssist data to the share which is mentioned in the command or to the default share. Default share can be configured using the supportassist attributes. • `accepteula`: Accepts the End User License Agreement (EULA). • `geteulastatus`: Provides the status of the End User License Agreement (EULA). • `exposeismintallertohostos`: Exposes iSM installerto theo host operating system, so that the user can install the iSM from the host side.

Synopsis	• To perform supportassist operation by specifying the type of the operation.
	`racadm supportassist <support assist command type>`
	• To collect the data and store it in the iDRAC.
	`racadm supportassist collect -t <logtype>`
	• To collect the data and export to network share
	`racadm supportassist collect -t <logtype> -l <CIFS/NFS/TFTP/FTP share> -u <username> -p <password>`

Table 91. supportassist command parameters and options (continued)

supportassist	

	• To collect the data and export to HTTP/HTTPS share
	`racadm supportassist collect -t <logtype> -l <HTTP/HTTPS share> -u <username> -p <password> -port <port number>`
	• To collect the data and upload to a Dell SupportAssist server.
	`racadm supportassist collect -t <logtype> -upload`
	• To collect the data and export to local share. This is only allowed from remote and local RACADM.
	`racadm supportassist collect -t <logtype>  -f <filename>`
	• To collect the data and export to remote share and to Dell SupportAssist server.
	`racadm supportassist collect -t <logtype> -l <CIFS or NFS share location> -u <username> -p <password> --upload`
	• To collect telemetry reports.
	`racadm supportassist collect -t TelemetryReports`
	• To collect all the GPU-related logs:
	`racadm supportassist collect -t gpudebug`
	NOTE: There is a timeout issue when this command is run through local share from remote RACADM.
	• To Export, the last collected SupportAssist data to a remote share.
	`racadm supportassist exportlastcollection -l <CIFS/NFS/TFTP/FTP share> -u myuser -p mypass`
	• To Export, the last collected SupportAssist data to HTTP/HTTPS share.
	`racadm supportassist exportlastcollection -l <HTTP/HTTPS share> -u myuser -p mypass -port <port number>`
	• To export the last collected SupportAssist data to the default network share.
	`racadm supportassist exportlastcollection`
	• To accept End User License Agreement (EULA)
	`racadm supportassist accepteula`
	• To check End User License Agreement (EULA) status
	`racadm supportassist geteulastatus`
	• To expose the iSM installer to the host operating system.
	`racadm supportassist exposeismminstallertohostos`

Input	• `-t`—Specifies the types of logs to be included in the export data. ○ `-sysinfo`—System information ○ `-osAppAll`—operating system and Application data ○ `-ttylog`—Storage log information ○ `-Debug`—iDRAC debug logs ○ `-GpuDebug`—iDRAC GPU debug logs • `-l`—Specifies the network share location.

Table 91. supportassist command parameters and options (continued)

supportassist	
	• -u—Specifies the username of the remote share. • -p—Specifies the password of the remote share. • -f—Specifies the target filename of the exported data. **NOTE:** The filename must have ZIP as the extension. • -port— Specifies the port number. **NOTE:** This is an optional parameter. If this option is not specified, the default port number is used. • -pfname—Specifies the primary user's first name for the registration. • -plname—Specifies the primary user's last name for the registration. • -pmnumber—Specifies the primary user' s number. • -panumber—Specifies the primary user' s alternative number. • -pmailid—Specifies the primary user' s email address. • -sfname—Specifies the secondary user' s first name. • -slname—Specifies the secondary user' s last name. • -smnumber—Specifies the secondary user' s number. • -sanumber—Specifies the secondary user' s alternate number. • -smailid—Specifies the secondary user' s email address. • -company—Specifies the company name. • -street1—Specifies the street address of the company. • -street2—Specifies the secondary street address of the company. • -city—Specifies the name of the city. • -state—Specifies the name of the state. • -country—Specifies the name of the country or region. • -zip—Specifies the ZIP or postal code. • -time—Specifies the time to schedule a SupportAssist collection in HH:MM 12-hour format. • -dom—Specifies the day of the month to schedule a SupportAssist collection. Valid values are 1-28, L(Last day) or '*' (default - any day). If the -dom option is included in the command, then -wom and -dow options should not be included. • -wom—Specifies the week of the month to schedule a SupportAssist collection. Valid values are 1-4, L(Last week) or '*' (default - any week). If -wom option is in the command, then only -dow option should be included. -dom should not be included. • -dow — Specifies the day of the week to schedule a SupportAssist collection. Valid values sunday, monday,...saturday '*' (default - any day). • -rp — Specifies the repeat parameter weekly, or monthly, or quarterly. Weekly is allowed only with dow parameter. Monthly/quarterly is allowed either with dom or dow and wom together.

Example

- To collect the system information data.

```
racadm supportassist collect
```

- To collect the filtered data.

```
racadm supportassist collect --filter
```

- To collect the data and export to an FTP share.

```
racadm supportassist collect -t Debug -l ftp://192.168.0.130/share -u myuser -p mypass
```

- To collect the data and export to a TFTP share.

```
racadm supportassist collect -t Debug -l tftp://192.168.0.130/share
```

- To collect the data and export to a CIFS share.

```
racadm supportassist collect -t sysinfo -l //192.168.0.130/share -u myuser -p mypasss
```

- To collect the data and export to an HTTP share.

```
racadm supportassist collect -t TTYLog -l http://192.168.0.130/share -u myuser -p
mypass -port 8080
```

- To collect the data and export to an HTTPS share.

```
racadm supportassist collect -t Debug -l https://192.168.0.130/share -u myuser -p
mypass -port 8080
```

- To export the last collected supportassist data to an FTP share

```
racadm supportassist exportlastcollection -l ftp://192.168.0.130/share -u myuser -p
mypass
```

- To collect the data and export to an NFS network share:

```
racadm supportassist collect -l 192.168.0.130:/supportassist_share
```

- To collect the data and upload to the Dell supportassist server.

```
 racadm supportassist collect --upload
```

- To collect the data and export to a local share. This is allowed only from a remote or a local RACADM.

```
 racadm supportassist collect -f tsr.zip
```

- To collect the data and export to a remote share and to the Dell supportassist server.

```
 racadm supportassist collect -t Debug -l //192.168.0.130/share -u myuser -p mypass
--upload
```

- To collect telemetry report.

```
racadm supportassist collect -t TelemetryReports
```

- To collect all the gpu-related logs:

```
racadm supportassist collect -t gpudebug
```

- To export the last collected supportassist data to a CIFS share

```
 racadm supportassist exportlastcollection -l //192.168.0.130/share -u myuser -p
mypass
```

- To export the collected supportassist data to the default network share.

```
 racadm supportassist exportlastcollection
```

- To accept the End User License Agreement (EULA).

```
 racadm supportassist accepteula
```

- To check the End User License Agreement (EULA) status.

```
 racadm supportassist geteulastatus
```

- To expose the iSM installer to the host operating system for the iSM installation.

```
 racadm supportassist exposeismminstallertohostos
```

swinventory

Table 92. swinventory command parameters and options

swinventory	
Description	Displays the list of software objects and associated properties that are installed on a server. **NOTE:** Lifecycle Controller and CSIOR should not be enabled to run this subcommand.
Synopsis	`racadm swinventory`
Input	`racadm swinventory`

Output	`racadm swinventory`
	
	`-------------------------SOFTWARE INVENTORY-----------------------`
	
	`ComponentType = FIRMWARE`
	`ElementName = Power Supply.Slot.1`
	`FQDD = PSU.Slot.1`
	`InstallationDate = NA`
	`Rollback Version = 5819`
	`HashValue =`
	`0e1a5f5e2aceb3e8febf09bc4bbc4293ce057e81d1f02b1b93a9cb75f3b82fd4`
	`SidebandUpdate = No`
	`PLDMCapabilitiesDuringUpdate = 0x0`
	`PLDMFDPCapabilitiesDuringUpdate = 0x0`
	`----------------------------------------------------------------`
	
	`ComponentType = FIRMWARE`
	`ElementName = Power Supply.Slot.2`
	`FQDD = PSU.Slot.2`
	`InstallationDate = NA`
	`Rollback Version = 5819`
	`HashValue =`
	`0e1a5f5e2aceb3e8febf09bc4bbc4293ce057e81d1f02b1b93a9cb75f3b82fd4`
	`SidebandUpdate = No`
	`PLDMCapabilitiesDuringUpdate = 0x0`
	`PLDMFDPCapabilitiesDuringUpdate = 0x0`
	`----------------------------------------------------------------`
	
	`ComponentType = FIRMWARE`
	`ElementName = Power Supply.Slot.1`
	`FQDD = PSU.Slot.1`
	`InstallationDate = 2024-10-24T20:16:29Z`
	`Current Version = 5b19`
	`HashValue =`
	`0e1a5f5e2aceb3e8febf09bc4bbc4293ce057e81d1f02b1b93a9cb75f3b82fd4`
	`SidebandUpdate = No`
	`PLDMCapabilitiesDuringUpdate = 0x0`
	`PLDMFDPCapabilitiesDuringUpdate = 0x0`
	`----------------------------------------------------------------`
	
	`ComponentType = FIRMWARE`
	`ElementName = Power Supply.Slot.2`
	`FQDD = PSU.Slot.2`
	`InstallationDate = 2024-10-24T20:16:29Z`
	`Current Version = 5b19`
	`HashValue =`
	`0e1a5f5e2aceb3e8febf09bc4bbc4293ce057e81d1f02b1b93a9cb75f3b82fd4`
	`SidebandUpdate = No`
	`PLDMCapabilitiesDuringUpdate = 0x0`
	`PLDMFDPCapabilitiesDuringUpdate = 0x0`
	`----------------------------------------------------------------`
	
	`ComponentType = FIRMWARE`

Table 92. swinventory command parameters and options (continued)

swinventory	

```
ElementName = Power Supply.Slot.1
FQDD = PSU.Slot.1
InstallationDate = NA
Available Version = 5B19
HashValue =
0e1a5f5e2aceb3e8febf09bc4bbc4293ce057e81d1f02b1b93a9cb75f3b82fd4
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Power Supply.Slot.2
FQDD = PSU.Slot.2
InstallationDate = NA
Available Version = 5B19
HashValue =
0e1a5f5e2aceb3e8febf09bc4bbc4293ce057e81d1f02b1b93a9cb75f3b82fd4
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Integrated Dell Remote Access Controller
FQDD = iDRAC.Embedded.1-1
InstallationDate = NA
Rollback Version = 1.10.05.00
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Integrated Dell Remote Access Controller
FQDD = iDRAC.Embedded.1-1
InstallationDate = 2024-08-14T08:10:17Z
Current Version = 1.10.05.00
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B1
FQDD = NIC.Slot.10-2-1
InstallationDate = 2024-10-05T07:24:14Z
Current Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B0
FQDD = NIC.Slot.10-1-1
InstallationDate = 2024-10-05T07:24:16Z
Current Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------
```

Table 92. swinventory command parameters and options (continued)

swinventory	

```
ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B2
FQDD = NIC.Slot.10-3-1
InstallationDate = 2024-10-05T07:24:20Z
Current Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B3
FQDD = NIC.Slot.10-4-1
InstallationDate = 2024-10-05T20:17:46Z
Current Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF -
E8:EB:D3:F7:CB:99
FQDD = NIC.Slot.4-2-1
InstallationDate = 2024-10-05T20:17:49Z
Current Version = 26.32.20.04
HashValue = NA
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x2
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = NVIDIA ConnectX-6 Lx 2x 25G SFP28 OCP3.0 SFF -
E8:EB:D3:F7:CB:98
FQDD = NIC.Slot.4-1-1
InstallationDate = 2024-10-05T20:17:52Z
Current Version = 26.32.20.04
HashValue = NA
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x2
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B1
FQDD = NIC.Slot.10-2-1
InstallationDate = NA
Available Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B0
FQDD = NIC.Slot.10-1-1
InstallationDate = NA
Available Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
```

Table 92. swinventory command parameters and options (continued)

swinventory	

```
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B2
FQDD = NIC.Slot.10-3-1
InstallationDate = NA
Available Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Broadcom Adv. Quad 25Gb Ethernet - 6C:92:CF:1D:8A:B3
FQDD = NIC.Slot.10-4-1
InstallationDate = NA
Available Version = 22.92.07.50
HashValue =
81521be47415291ba20be431b9c64b8d9a59100b1e5eb0110571678f6e889ee6
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = PERC H965i Front
FQDD = RAID.SL.3-1
InstallationDate = NA
Rollback Version = 8.8.0.0.18-26
HashValue =
b1891dc4050dff3784f5ecc46e7a7ca27b4418b7d8bca5882a28b212ddb25f0f
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = PERC H965i Front
FQDD = RAID.SL.3-1
InstallationDate = 2024-10-25T18:49:00Z
Current Version = 8.8.0.0.18-30
HashValue =
b1891dc4050dff3784f5ecc46e7a7ca27b4418b7d8bca5882a28b212ddb25f0f
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = PERC H965i Front
FQDD = RAID.SL.3-1
InstallationDate = NA
Available Version = 8.8.0.0.18-30
HashValue =
b1891dc4050dff3784f5ecc46e7a7ca27b4418b7d8bca5882a28b212ddb25f0f
SidebandUpdate = Yes
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = BIOS
ElementName = BIOS
FQDD = BIOS.Setup.1-1
```

Table 92. swinventory command parameters and options (continued)

swinventory	

```
InstallationDate = NA
Rollback Version = 1.1.2
HashValue =
b1fb585267e940e5281f4fc03679362d9ac59131b130ac25aa67cd360140c360
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = BIOS
ElementName = BIOS
FQDD = BIOS.Setup.1-1
InstallationDate = 2024-10-25T16:37:19Z
Current Version = 1.1.3
HashValue =
b1fb585267e940e5281f4fc03679362d9ac59131b130ac25aa67cd360140c360
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = BIOS
ElementName = BIOS
FQDD = BIOS.Setup.1-1
InstallationDate = NA
Available Version = 1.1.3
HashValue =
b1fb585267e940e5281f4fc03679362d9ac59131b130ac25aa67cd360140c360
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = APPLICATION
ElementName = Lifecycle Controller
FQDD = USC.Embedded.1:LC.Embedded.1
InstallationDate = 2023-03-03T09:52:45Z
Current Version = 1.10.05.00
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = System FPGA
FQDD = CPLD.Embedded.1
InstallationDate = 2024-10-21T07:07:13Z
Current Version = 106.109.102
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = TPM
FQDD = TPM.Integrated.1-1
InstallationDate = 2024-08-14T04:17:06Z
Current Version = NotAvailable
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = APPLICATION
ElementName = Dell 64 Bit uEFI Diagnostics, version 4303, 4303A27,
```

Table 92. swinventory command parameters and options (continued)

swinventory	

```
4303.27
FQDD = Diagnostics.Embedded.1:LC.Embedded.1
InstallationDate = 2024-10-10T15:45:21Z
Current Version = 4303A27
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Flop CPLD 1
FQDD = CPLD.IOBay.1
InstallationDate = 2024-10-05T11:25:39Z
Current Version = 1.0.2
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------

ComponentType = APPLICATION
ElementName = Dell OS Driver Pack, 24.10.04, X04
FQDD = DriverPack.Embedded.1:LC.Embedded.1
InstallationDate = 2024-10-10T15:45:43Z
Current Version = 24.10.04
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Backplane 1
FQDD = RAID.Backplane.Firmware.1
InstallationDate = 2024-10-05T05:59:46Z
Current Version = 1.66
HashValue =
524c2291765c5efc48e096fd28d83e22a4066d11ba1e7e00a9bf5b0509fc3bad
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Backplane 2
FQDD = RAID.Backplane.Firmware.2
InstallationDate = 2024-10-05T06:00:33Z
Current Version = 1.66
HashValue =
524c2291765c5efc48e096fd28d83e22a4066d11ba1e7e00a9bf5b0509fc3bad
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Backplane 1
FQDD = RAID.Backplane.Firmware.1
InstallationDate = NA
Available Version = 1.66
HashValue =
524c2291765c5efc48e096fd28d83e22a4066d11ba1e7e00a9bf5b0509fc3bad
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------
```

Table 92. swinventory command parameters and options (continued)

swinventory	

```
ComponentType = FIRMWARE
ElementName = Backplane 2
FQDD = RAID.Backplane.Firmware.2
InstallationDate = NA
Available Version = 1.66
HashValue =
524c2291765c5efc48e096fd28d83e22a4066d11ba1e7e00a9bf5b0509fc3bad
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Disk 0 in Backplane 1 of RAID Controller in SL 3
FQDD = Disk.Bay.0:Enclosure.Internal.0-1:RAID.SL.3-1
InstallationDate = 2024-10-05T05:47:06Z
Current Version = HJ53
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Disk 1 in Backplane 1 of RAID Controller in SL 3
FQDD = Disk.Bay.1:Enclosure.Internal.0-1:RAID.SL.3-1
InstallationDate = 2024-10-24T20:22:56Z
Current Version = HJ53
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Disk 2 in Backplane 1 of RAID Controller in SL 3
FQDD = Disk.Bay.2:Enclosure.Internal.0-1:RAID.SL.3-1
InstallationDate = 2024-10-24T20:23:27Z
Current Version = HJ53
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Disk 3 in Backplane 1 of RAID Controller in SL 3
FQDD = Disk.Bay.3:Enclosure.Internal.0-1:RAID.SL.3-1
InstallationDate = 2024-10-24T20:23:48Z
Current Version = HJ53
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
ElementName = Disk 4 in Backplane 1 of RAID Controller in SL 3
FQDD = Disk.Bay.4:Enclosure.Internal.0-1:RAID.SL.3-1
InstallationDate = 2024-10-24T20:23:50Z
Current Version = HJ53
HashValue = NA
SidebandUpdate = No
PLDMCapabilitiesDuringUpdate = 0x0
PLDMFDPCapabilitiesDuringUpdate = 0x0
----------------------------------------------------------------------

ComponentType = FIRMWARE
```

Table 92. swinventory command parameters and options (continued)

swinventory	
	ElementName = Disk 5 in Backplane 1 of RAID Controller in SL 3 FQDD = Disk.Bay.5:Enclosure.Internal.0-1:RAID.SL.3-1 InstallationDate = 2024-10-24T20:24:40Z Current Version = HJ53 HashValue = NA SidebandUpdate = No PLDMCapabilitiesDuringUpdate = 0x0 PLDMFDPCapabilitiesDuringUpdate = 0x0 ---------- ComponentType = FIRMWARE ElementName = Disk 8 in Backplane 1 of RAID Controller in SL 3 FQDD = Disk.Bay.8:Enclosure.Internal.0-1:RAID.SL.3-1 InstallationDate = 2024-10-24T20:27:17Z Current Version = HJ53 HashValue = NA SidebandUpdate = No PLDMCapabilitiesDuringUpdate = 0x0 PLDMFDPCapabilitiesDuringUpdate = 0x0 ---------- ComponentType = FIRMWARE ElementName = Disk 9 in Backplane 1 of RAID Controller in SL 3 FQDD = Disk.Bay.9:Enclosure.Internal.0-1:RAID.SL.3-1 InstallationDate = 2024-10-24T20:27:28Z Current Version = HJ53 HashValue = NA SidebandUpdate = No PLDMCapabilitiesDuringUpdate = 0x0 PLDMFDPCapabilitiesDuringUpdate = 0x0 ----------

NOTE: Configuration changes and firmware updates that are made within the operating system may not reflect properly in the inventory until you perform a server restart.

switchconnection

Table 93. switchconnection command parameters and options

switchconnection	
Description	Provides the switch port details of iDRAC and server network ports. Refresh switch port details of all ports in the server. To run this command, you must have the `Login` privilege.
Synopsis	• `racadm switchconnection view` • `racadm switchconnection view [iDRAC FQDD | NIC FQDD]` • `racadm switchconnection refresh`
Input	• `<iDRAC FQDD | NIC FQDD>` — is the fully qualified device descriptor of iDRAC or NIC.

Examples	• To provide switch port details of all iDRAC and server network port
	`racadm switchconnection view`
	• To provide switch port details of requested FQDD NIC.Integrated.1-1-1:BRCM
	`racadm switchconnection view NIC.Integrated.1-1-1:BRCM`

Table 93. switchconnection command parameters and options (continued)

switchconnection	
	• To refresh switch port details of all ports in the server `racadm switchconnection refresh`

systemerase

Table 94. systemerase command parameters and options

systemerase	
Description	Allows you to erase the components to remove the server from use.

Synopsis	• To erase a specific component.
	`racadm systemerase <component>`
	• To erase multiple components.
	`racadm systemerase <component>,<component>,<component>`

Input	• `<component>`—the valid types of components are: ○ `bios`—To reset the BIOS to default. ○ `diag`—To erase embedded diagnostics. ○ `drvpack`—To erase the embedded operating system driver pack. ○ `dpu`—Erase all the user configurations from the supported DPUs. ○ `idrac`—To reset the iDRAC to default. ○ `lcdata`—To erase Lifecycle Controller data. ○ `allaps`—To reset all apps. ○ `cryptographicerasepd`—To erase the hard drive. This supports SED, NVMe drives, and PCIe cards. ○ `overwritepd`—To overwrite hard drive. This supports SAS and SATA drives. ○ `percnvcache`—To erase the NV cache. ○ `reinstallfw`— To reinstall the same firmware version that is detected for supported devices. ○ `nvdimm`—To erase all Non-VolatileMemory. **NOTE:** When BIOS is selected for System Erase, the server is turned off and the iDRAC is reset at the end of the Automated Task Application. To complete the process of BIOS reset, the server power must be restored. When the server is turned on, during POST, the BIOS completes the process of resetting to the default properties. At the completion of the reset process, the server is again turned off. Resetting the BIOS also includes the erasing of BIOS-related nonvolatile settings that are used by the operating system and embedded in the UEFI applications. **NOTE:** When the racadm systemerase command is executed, the iDRAC takes the following actions if the: • The server is powered off—it is powered on. • The server is powered on—a graceful system reboot will be executed. • ACPI is enabled on the server— A Graceful Shutdown occurs within a minute or two. • ACPI is not enabled—A forced shutdown occurs and it may require up to ten minutes to complete. Following the server reboot, the Lifecycle Controller will execute the System Erase job to carry out the requested actions. All actions that are performed by the System Erase operations are recorded to the Lifecycle Log, including details of all devices erased. When these actions are completed, the server is powered off and remain in this state, allowing service personnel to perform any needed to posterase actions such as drive removal or hardware reconfiguration. When the server is powered on to return to service, the Lifecycle Controller will collect the system inventory and reflect any hardware or firmware changes that are made after the System Erase.

Table 94. systemerase command parameters and options (continued)

systemerase	
Examples	• `racadm systemerase bios` • `racadm systemerase diag` • `racadm systemerase drvpack` • `racadm systemerase dpu` • `racadm systemerase idrac` • `racadm systemerase lcdata` • `racadm systemerase bios,diag,drvpack` • `racadm systemerase bios,idrac,lcdata` • `racadm systemerase allapps` • `racadm systemerase cryptographicerasepd` • `racadm systemerase overwritepd` • `racadm systemerase percnvcache` • `racadm systemerase reinstallfw` • `racadm systemerase cryptographicerasepd,percnvcache` • `racadm systemerase nvdimm`

systemperfstatistics

Table 95. systemperfstatistics command parameters and options

systemperfstatistics	
Description	Allows you to view and manage the system performance monitoring operations.

Synopsis	• To view the FQDDs of system performance monitoring sensors
	`racadm systemperfstatistics view`
	• To list the usage statistics of a specific sensor
	`racadm systemperfstatistics <sensor_FQDD>`
	• To reset the utilization peaks of system performance monitoring sensors
	`racadm systemperfstatistics PeakReset <FQDD>`
	• To run the peakreset operation you must have configure iDRAC privilege.

Examples:

- To view the FQDDs of system performance monitoring sensors

```
racadm systemperfstatistics view
[key = iDRAC.Embedded.1#SystemBoardCPUUsageStat]
[key = iDRAC.Embedded.1#SystemBoardIOUsageStat]
```

```
[key = iDRAC.Embedded.1#SystemBoardMEMUsageStat]
[key = iDRAC.Embedded.1#SystemBoardSYSUsageStat]
```

- To list the usage statistics of a specific sensor

```
racadm systemperfstatistics iDRAC.Embedded.1#SystemBoardCPUUsageStat

Minimum Readings
Last Hour     = 0% [At Mon, 04 Nov 2024 17:13:04]
Last Day      = 0% [At Mon, 04 Nov 2024 15:59:53]
Last Week     = 0% [At Fri, 01 Nov 2024 15:59:53]

Maximum Readings
Last Hour     = 0% [At Thu, 01 Jan 1970 00:00:00]
Last Day      = 0% [At Thu, 01 Jan 1970 00:00:00]
Last Week     = 0% [At Thu, 01 Jan 1970 00:00:00]

Average Readings
Last Hour     = 0%
Last Day      = 0%
Last Week     = 0%

Peak Readings
Last Week     0% [At Mon, 04 Nov 2024 17:13:04]
```

- To reset the peak utilization of a specific sensor

```
racadm systemperfstatistics PeakReset iDRAC.Embedded.1#SystemBoardCPUUsageStat
RAC1163: The peak utilization value of Out-Of-Band performance monitoring sensor CPU
Usage is successfully reset.
```

testalert

Table 96. testalert command parameters and options

testalert	
Description	Tests FQDN supported SNMP trap notifications. To run this subcommand, you must have the Test Alert User Access.
Synopsis	`racadm testalert -i <index>`
Input	`-i` — Specifies the index of the trap test. `index` must be an integer from 1 to 8 on iDRAC.
Output	`Success: Test trap sent successfully` `Failure: Unable to send test trap`

Example	• Test a trap with index as 1.
	`racadm testalert -i 1`
	`Test trap sent successfully.`
	• Test a trap that has not been configured yet.
	`racadm testalert -i 2`
	`ERROR: Trap at specified index is not currently enabled.`

testemail

Table 97. testemail command parameters and options

testemail	
Description	Sends a test email from iDRAC to a specified destination. Prior to running the test email command, make sure that the SMTP server is configured. The specified index in the **idrac.EmailAlert** group must be enabled and configured properly. For more information, see Integrated Dell Remote Access Controller RACADM CLI Guide .
Synopsis	`racadm testemail -i <index>`
Input	`-i <index>` — Specifies the index of the email alert to test.
Output	`Success: Test e-mail sent successfully Failure: Unable to send test e-mail`

Example	Commands for the **idrac.EmailAlert** group:
	• Enable the alert.
	`racadm set idrac.EmailAlert.1.Enable 1`
	• Set the destination email address.
	`racadm set idrac.EmailAlert.1.Address user1@mycompany.com`
	• Set the custom message that is sent to the destination email address.
	`racadm set idrac.emailalert.1.CustomMsg "This is a test!"`
	• Make sure that the SMTP IP address is configured properly.
	`racadm set idrac.remotehosts.SMTPServerIPAddress 192.168.0`
	• View the current email alert settings.
	`racadm get idrac.EmailAlert.<index>`
	where `<index>` is a number from 1 to 8.

testrsyslogconnection

Table 98. testrsyslogconnection command parameters and options

testrsyslogconnection	
Description	Allows you to check the connection with the Telemetry rsyslog server. The Telemetry feature requires iDRAC10 DataCenter or OpenManage Enterprise Advanced license to run this command.
Synopsis	`racadm testrsyslogconnection`
Input	`testrsyslogconnection`
Output	A test connection to the rsyslog server was successful.
Example	To test a Telemetry rsyslog connection: `racadm testrsyslogconnection`

testtrap

Table 99. testtrap command parameters and options

testtrap	
Description	Tests the RAC's SNMP trap alerting feature by sending a test trap from iDRAC to a specified destination trap listener on the network. To run this subcommand, you must have the **Test Alert** permission. **NOTE:** • Before you run the `testtrap` subcommand, ensure that the specified index in the `RACADM iDRAC.SNMPAlert` group is configured properly. • Theindexess of `testtrap` subcommand is co-related to the indexes of **iDRAC.SNMPAlert** group.
Synopsis	`racadm testtrap -i <index>`
Input	`-i <index>`—Specifies the index of the trap configuration that must be used for the test. Valid values are from 1 to 4.

Example	• Enable the alert.
	`racadm set idrac.emailalert.1.CustomMsg 1`
	`racadm set iDRAC.SNMPAlert.1.State 1`
	• Set the destination email IP address.
	`racadm set iDRAC.SNMPAlert.1.Destination 192.168.0`
	• View the current test trap settings.
	`racadm get iDRAC.SNMPAlert.<index>`
	where `<index>` is a number from 1 to 8.

traceroute

Table 100. traceroute command parameters and options

traceroute	
Description	Traces network path of the routers as the packets traverse from the system to a destination IPv4 address. To run this subcommand, you must have the Execute Diagnostic Commands permission.
Synopsis	`racadm traceroute <IPv4 address>`
Input	`IPv4` — Specifies IPv4 address.
Output	`traceroute to 192.168.0.120, 30 hops max, 40 byte packets` `1 192.168.0.120 0.801 ms 0.246 ms 0.253 ms`

tracepath6

Table 101. tracepath6 command parameters and options

tracepath6	
Description	Traces the network path of routers as the packets traverse from the system to a destination IPv6 address. To run this subcommand, you must have the Execute Diagnostic Commands permission.
Synopsis	`racadm tracepath6 <IPv6address>`
Input	<host>–The IPv6 address/hostname of the remote endpoint to trace

Example	To execute a tracepath for address tracepath for address FE80:0000:0000:0000:0202:B3FF:FE1E:8329:
	`racadm tracepath6 FE80:0000:0000:0000:0202:B3FF:FE1E:8329`
	`tracepath6 fe80::a9b1:deb0:cafa:a4d9`
	` 1?: [LOCALHOST] 0.076ms pmtu 65536`
	` 1: fe80::a9b1:deb0:cafa:a4d9%nic1 0.479ms reached`
	` 1: fe80::a9b1:deb0:cafa:a4d9%nic1 0.434ms reached`
	`  Resume: pmtu 65536 hops 1 back 1`

update

Table 102. update command parameters and options

update subcommand	
Description	Allows you to update the firmware of devices on the server. The supported firmware image file types are: • `.exe`—Windows-based Dell Update Package (DUP) • `.pm` • `.sc` The supported catalog files are: • `.xml` • `xml.gzip` **NOTE:** • Updating the platforms from the repository is not supported for IPv6. • The firmware update through FTP has a limitation of file name up to 64 characters. • Depending on the network traffic, the HTTP packet transfer may fail if you perform update operation from a remote RACADM through a local share. In such cases, retry the operation. If the issue persists, use remote RACADM with the CIFS or NFS share. • The supported share types for single file or DUP updates are CIFS, NFS, HTTP, and HTTPS. For Repository updates, the supported share types are CIFS, NFS, FTP, TFTP, and HTTP. • When a port number is appended to an IP address for firmware update, the job fails with an internal error. • `racadm update` command mounts a partition on the iDRAC as a USB device when run from the local host Operating System.

Table 102. update command parameters and options (continued)

update subcommand	

Synopsis	For single file or DUP update:
	`racadm update -f <updatefile>`
	`racadm update -f <updatefile> -l <location> -u <username for CIFS share> -p <password for CIFS share>`
	`racadm update -f <updatefile> -l <location>`
	For Repository updates
	`racadm update -f <catalog file> -t <Repository type> -l <location> \ -u <username for CIFS share> -p <password for CIFS share> \ [-a <restart>] [--verifycatalog]`
	`racadm update -f <catalog file> -t <Repository type> \ -e <FTP server with the path to the catalog file> [-a <restart>] \[--verifycatalog]`
	`racadm update -f <catalog file> -t <Repository type> \ -e <FTP server with the path to the catalog file> [-a <restart>] \ -ph <proxy ip> -pu <proxy user> -pp <proxy pass> -po <proxy port> \ -pt <proxy type>`
	`racadm update viewreport`

Input	For single file or DUP update:
	• `-f: <updatefile>`—Update filename (Windows DUP, `.d9`,`.pm`, `.sc`) only.
	• `-u: < username for CIFS share>`—Specifies username of the remote share that stores the update file. Specify username in a domain as domain/username.
	• `-p: <password for CIFS share`—Specifies password of the remote share that stores the update file.
	• `-l: <location>`—Specifies network share location that stores the update file. For more information on NFS or CIFS share, see section on Usage examples
	• `–reboot`—Performs a graceful system reboot after the firmware update.
	For Repository update:
	• `-f: <updatefile>`—Update filename . For update from repository `.xml` files are allowed. If a file name is not specified for repository update, Catalog.xml is taken as default. If a file name is not specified for repository update, then the `Catalog.xml` is taken as default.
	• `-u: < username for CIFS share>`—Username of the remote share that stores the update file. Specify username in a domain as domain/username.
	• `-p: <password for CIFS share` — Specifies password of the remote share that stores the update file.
	• `-l: <location>`—Specifies network share location (CIFS/NFS/HTTP/HTTPS/FTP), that stores the update file. For more information on network share, see section on Usage examples
	• `-a: <restart>` — This option indicates if the server should be restarted after the update from repository operation completes. Must be one of the below:
	  ○ TRUE : restart after update completes
	  ○ FALSE : do not restart after update completes
	NOTE: These options are case insensitive.
	• `-t:Repository type>`—Specifies the type of repository being used for the update. Must be one of the below:
	  ○ FTP: Repository is FTP

Table 102. update command parameters and options (continued)

update subcommand	
	○ TFTP: Repository is TFTP ○ HTTP: Repository is HTTP ○ HTTPS: Repository is HTTPS ○ CIFS: Repository is CIFS ○ NFS: Repository is NFS **NOTE:** These options are case insensitive. If the repository update functionality is to be invoked, this option is necessary. ● `-e:<FTP server with the path to the catalog file>`—Specifies the Server path for the FTP, TFTP, HTTP, and HTTPS. ● `-ph : <proxy ip>`—Specifies the IP address of the proxy server. ● `-pu : <proxy user>`—Specifies the user name for proxy credentials. ● `-pp : <proxy pass>`—Specifies the password for proxy credentials. ● `-po : <proxy port>`—Specifies the port for proxy server. ● `-pt : <proxy type>`—Specifies the proxy type. Must be one of the below: ○ HTTP: Proxy is HTTP ○ SOCKS4: Proxy is SOCKS4 **NOTE:** ○ If the repository has to be through a proxy, the proxy server address, proxy username and the proxy password are necessary. The Lifecycle Controller must be enabled for repository update. ○ This command supports both IPV4 and IPV6 formats. IPV6 is applicable only for CIFS and NFS remote share.
Output	Firmware update job for `<filename>` is initiated. This firmware update job may take several minutes to complete depending on the component or firmware being updated. To view the progress of the job, run the `racadm jobqueue view` command. For repository update command, the output is: `Update from repository operation has been initiated. Check the progress of the operation using "racadm jobqueue view -i JID_809364633532" command.` For devices that perform update process without rebooting the host, the update status changes from `Downloading` to `Completed`. For devices that require host reboot to perform update process, the update status changes from `Downloading` to `Scheduled`. When the status is displayed as `Scheduled`, reboot the host to start the update process. The following devices require host reboot to perform the update process: ● Backplanes ● BIOS ● Field Programmable Gate Arrays (FPGAs) ● Hard disk drives ○ Solid-state drives (SSD) ● Network interface cards (NIC) or Fibre Channel (FC) cards ● PCIe SSD devices ● Power supply unit (PSU) ● Storage controllers

Example	For single file or DUP updates:
	● Upload the update file from a remote FTP share
	
	`racadm update -f <updatefile> -u admin -p mypass -l ftp://192.168.0.130/share`
	
	● Upload the update file from a remote FTP share and to perform a graceful system reboot after update:
	
	`racadm update -f <updatefile> -u admin -p mypass -l ftp://192.168.0.130/share --reboot`

Table 102. update command parameters and options (continued)

update subcommand	

	• Upload the update file from a remote CIFS share:
	`racadm update -f <updatefile> -u admin -p mypass -l //192.168.0.130/share`
	• Upload the update file from a remote CIFS share and under a user domain "dom":
	`racadm update -f <updatefile> -u dom/admin -p mypass -l //192.168.0.130/share`
	• Upload the update file from a remote NFS share:
	`racadm update -f <updatefile> -l 192.168.0.130:/share`
	• Upload the update file from a remote HTTP share:
	`racadm update -f <updatefile> -u admin -p mypass -l http://192.168.0.130/share`
	• Upload the update file from a remote HTTPS share:
	`racadm update -f <updatefile> -u admin -p mypass -l https://192.168.0.130/share`
	• Upload the update file from the local file system using Local RACADM.
	`racadm update -f <updatefile>`
	• Upload the Update file from a remote CIFS share and to perform a graceful system reboot after update:
	`racadm update -f <updatefile> -u admin -p mypass -l //192.168.0.130/share --reboot`
	• Upload the Update file from a remote NFS share and to perform a graceful system reboot after update:
	`racadm update -f <updatefile> -l 192.168.0.130:/share --reboot`
	• Upload the update file from a remote HTTP share and to perform a graceful system reboot after update:
	`racadm update -f <updatefile> -u admin -p mypass -l http://192.168.0.130/share --reboot`
	• Upload the Update file from the local file system using local racadm and to perform a graceful system reboot after update:
	`racadm update -f <updatefile> --reboot`
	For Repository updates:
	• Perform update from an FTP repository and to apply the updates, reboot the server:
	`racadm update -f Catalog.xml -l //192.168.0.130/Repo -u test -p passwd -a TRUE -t CIFS`
	• Generate a comparison report using about the available updates in the repository:
	`racadm update -f Catalog.xml -l 192.168.0.130:/Repo -t NFS -a FALSE --verifycatalog`
	• Perform update from an FTP repository and reboot the server to apply the updates:
	`racadm update -f Catalog.xml -e 192.168.0.130/Repo/MyCatalog -a TRUE -t FTP`

Table 102. update command parameters and options (continued)

update subcommand	

	• Perform update from an FTP repository with authentication and reboot the server to apply the updates
	`racadm update -f Catalog.xml -e 192.168.0.130/Repo/MyCatalog -u user -p mypass -a TRUE -t FTP`
	• Perform update from a HTTP repository and restart the server to apply the updates.
	`racadm update -f Catalog.xml -e 192.168.0.130/Repo/MyCatalog -a TRUE -t HTTP`
	• Perform update from a TFTP repository and restart the server to apply the updates.
	`racadm update -f Catalog.xml -e 192.168.0.130/Repo/MyCatalog -a TRUE -t TFTP`
	• Perform update from an FTP repository through a proxy server.
	`racadm update -f Catalog.xml -e 192.168.0.130/Repo/MyCatalog -a TRUE -ph 145.140.12.56 -pu prxyuser -pp prxypass -po 80 -pt http -t FTP`
	• Perform update from an downloads.dell.com
	`racadm update -f Catalog.xml.gz -e downloads.dell.com/Catalog -a TRUE -t HTTPS`
	• View the comparison report generated when --verifycatalog is used.
	`racadm update viewreport`

usercertupload

Table 103. usercertupload command parameters and options

usercertupload	
Description	Uploads a user certificate or a user CA certificate from the client to iDRAC. To run this subcommand, you must have the Configure iDRAC permission.
Synopsis	`racadm usercertupload -t <type> [-f <filename>] -i <index>`

Input	• `-t` — Specifies the type of certificate to upload, either the CA certificate or server certificate.
	  ○ `1`=user certificate
	  ○ `2`=user CA certificate
	• `-f` — Specifies the filename of the certificate that must be uploaded. If the file is not specified, the `sslcert` file in the current directory is selected.
	• `-i` — Index number of the user. Valid values 2–16.

Output	If upload is successful, the message `User certificate successfully uploaded to the RAC.` If unsuccessful, appropriate error message is displayed.
Example	To upload user certificate for user 6. `racadm usercertupload -t 1 -f c:\cert\cert.txt -i 6`

usercertview

Table 104. usercertview command parameters and options

usercertview	
Description	Displays the user certificate or user CA certificate that exists on iDRAC.
Synopsis	`racadm usercertview -t <type> [-A] -i <index>`

Input	• `-t`—Specifies the type of certificate to view, either the user certificate or the user CA certificate.
	  ○ 1=user certificate
	  ○ 2=user CA certificate
	• `-A`—Prevents printing headers or labels.
	• `-i`—Index number of the user. Valid values are 2–16.

Example	To view user certificate for user 6.
	`racadm usercertview -t 1 -i 6`
	`Serial Number : 01`
	`Subject Information:`
	`Country Code (CC) : US`
	`State (S) : Texas`
	`Locality (L) : Round Rock`
	`Organization (O) : Dell Inc.`
	`Common Name (CN) : iDRAC default certificate`
	`Issuer Information:`
	`Country Code (CC) : US`
	`State (S) : Texas`
	`Locality (L) : Not Available`
	`Organization (O) : Dell Inc.`
	`Organizational Unit (OU): Remote Access Group`
	`Common Name (CN) : iDRAC default certificate`
	`Valid From : Sep 7 23:54:19 2024 GMT`
	`Valid To : Sep 4 23:54:19 2034 GMT`
	NOTE: Not Available is displayed for attribute values in the certificate that are not populated or configured.

vmdisconnect

Table 105. vmdisconnect command parameters and options

vmdisconnect	
Description	Allows you to end another Virtual Media session. After the session ends, the web-based interface reflects the correct connection status. Enables an iDRAC user to disconnect all active Virtual Media sessions. The active Virtual Media sessions are displayed on iDRAC web-based interface or by running the RACADM subcommands `remoteimage` or `getssninfo`. To run this subcommand, you must have the Access Virtual Media permission.
Synopsis	`racadm vmdisconnect`

witnessnodepoweraction

Table 106. witnessnodepoweraction command parameters and options

witnessnodepoweraction	
Description	The witnessnodepoweraction command is used to perform witness node power management operations.
Synopsis	`racadm witnessnodepoweraction <action>`
Input	`<action>` – Specifies the witness node power management operation to perform. The possible values are: • `powerdown` : power witness node off • `powerup` : power witness node on • `hardreset` : force hard witness node power reset • `reseat` : re-seat witness node • `powerstatus` : display current power status of witness node

Example	To power down witness node:
	`racadm witnessnodepoweraction powerdown`
	To get the witness node power status:
	`racadm witnessnodepoweraction powerstatus`
	To power on witness node:
	`racadm witnessnodepoweraction powerup`
	To force witness node power hard reset:
	`racadm witnessnodepoweraction hardreset`
	To re-seat witness node:
	`racadm witnessnodepoweraction reseat`

4

Error Codes

An error code or a return code is an integer value which represents the status of a command that is run. Running any valid racadm command generates an error code.

To view an error code, you need to run another command after completion of the original command as below:

- `echo$?`—for Linux operating system
- `echo %errorlevel%`—for Windows operating system

0	Success
1	Generic failure examples • All iDRAC internal failures • Any read/write failures of iDRAC internal data • Failures due to unknown reasons
2	• When an invalid or out of range value is specified for any argument. • When the length of an argument (filename/path) is larger than allowed.
3	• When racadm command entered is incorrect/invalid. • When any command/option entered is not supported with the current interface/platform.
4	Syntax of the command is not correct, or invalid number of arguments are passed to the command.
5	When current iDRAC user does not have privileges to run the command.
6	When current iDRAC user does not have the required iDRAC license, or the existing license has expired.
7	When iDRAC does not have enough resources.
8	When iDRAC is running a similar job.
9	Failures (Write failures, invalid share details, mount failures, and so on) related to remote shares (CIFS/NFS/FTP/TFTP/HTTP/HTTPS).
10	Failure to transfer data from/to local interface
11	• When lockdown mode is enabled. • When dependent feature is disabled. • When dependent attributes are not configured/invalid.
12	Unable to connect to iDRAC remotely (remote racadm connect failures).
13	Issues related to IPMI failures.
14	Failure to transfer data from remote Interface.
15	Any session-related issues or state of the command.
16	Commands failing due to Invalid Keys/Signing Error.
17	Syntax of the command is correct but arguments that are passed to the command are not correct (Invalid FQDD, Invalid Object Specified).