

Dell OpenManage
Server Administrator
Version 7.1.2

Command Line Interface Guide



Notes and Cautions



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



CAUTION: A CAUTION indicates potential damage to hardware or loss of data if instructions are not followed.

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Introduction

Overview


Dell OpenManage Server Administrator (OMSA) provides a comprehensive, one-to-one systems management solution through either an integrated Web browser-based graphical user interface (GUI) or a command line interface (CLI). Server Administrator is designed for system administrators to manage systems locally and remotely on a network. It allows system administrators to focus on managing their entire network by providing a comprehensive one-to-one systems management.


In the context of Server Administrator, a system refers to a stand-alone system, a system with attached network storage units in a separate chassis, or a Blade system consisting of one or more server modules in a modular enclosure.


Server Administrator provides easy-to-use management and administration of local and remote systems through a comprehensive set of integrated management services. Server Administrator is the sole installation on the system being managed and is accessible both locally and remotely from the Server Administrator home page. Server Administrator enables you to access remotely monitored systems by dial-in, LAN, or wireless connections.

The configuration features enable Server Administrator to perform essential tasks described in detail in the following sections. This CLI guide documents all the commands that apply to Server Administrator and Storage Management.

The reporting and viewing features enable retrieval of the overall health status for systems on the network. You can view information about voltage, temperature, fan's revolutions per minute (RPM), memory functioning, and many other critical details at the component level. You can also see a detailed account of the cost of ownership (COO) about the system, retrieve version information about the BIOS, firmware, operating system, and all installed software.

 **NOTE:** Use the CLI instead of the Server Administrator home page, and turn the Server Administrator Web server off for concerns on encryption. The CLI does not use the Web server. Run the `omconfig system webserver action=stop` command to turn off the Web server. The Web server starts automatically after a reboot, so run this command each time the system starts up. For more information, see "omconfig system webserver or omconfig servermodule webserver" on page 171.

 **NOTE:** After installing Dell OpenManage Server Administrator, ensure that you log out and log in to reset the path to access Dell OpenManage CLI utilities.


 **NOTE:** For information on the terms used in this document, see the *Glossary* at dell.com/support/manuals.

What's New in This Release

The release highlights of OpenManage Server Administrator are:

- Support for reporting fluid cache, fluid cache pool, fluid cache disk, and partition details. See [omreport storage Commands](#).
- Support for applying and upgrading license to the fluid cache and updating cache configuration details. See [omconfig Fluid Cache Commands](#).
- Support for refreshing the storage partition details. See [omconfig Partition Command](#).
- Support for disabling caching on a fluid cache disk. See [omconfig Fluid Cache Disk Command](#).
- Support for enabling, disabling, and reactivating fluid cache for a specified virtual disk. See [omconfig Virtual Disk Commands](#).
- Support for adding, removing, and reactivating PCIe SSD device in a cache pool. See [omconfig PCIe SSD Commands](#).
- Added support for the following operating systems:

- Red Hat Enterprise Linux 6 SP2 (64-bit)
- Red Hat Enterprise Linux 6 SP3 (64-bit)
- Novell SUSE Linux Enterprise Server 11 SP2 (64-bit)
- Added support for the following platforms:
 - Dell PowerEdge R720, R820, R620, and T620
- Added support for the following browsers:
 - Internet Explorer 10
 - Mozilla Firefox 10, 11, and 12


 **NOTE:** For the supported operating systems list, see the *Dell Systems Software Support Matrix* at dell.com/support/manuals. Select **Choose from a list of all Dell products** option and click **Continue**. Click **Software, Monitors, Electronics & Peripherals** → **Software** → **Enterprise System Management**.

 **NOTE:** CLI commands are not supported on systems with VMware ESXi operating system.

Accessing the Windows Command Prompt to Run CLI Commands

If you are running the Microsoft Windows operating system, use the 32-bit command prompt to run a Server Administrator CLI command. Access the 32-bit command prompt using one of the following methods:

- Click **Start** → **Programs** → **Accessories** → **Command Prompt**
- Click **Start** → **Run** and type `cmd.exe`

 **NOTE:** Do not type `command` in the **Run** dialog box to launch a command line window; this activates the MS-DOS emulator **command.com**, which has environment variable limitations that can cause subtle problems with CLI.

Primary CLI Commands

The commands that carry out the functions of Server Administrator are:

- `omconfig`
- `omhelp`
- `omreport`

The `omconfig` command writes values that you assign to an object's properties. You can specify values for warning thresholds on components or prescribe action that the system must perform when a certain warning or failure event occurs. You can also use the `omconfig` command to assign specific values to the system's asset information parameters, such as the purchase price of the system, the system's asset tag, or the system's location.

The `omhelp` command displays short text help for CLI commands. The shorthand equivalent of `omhelp` is the command for which you want help followed by `-?`. For example, to display help for the `omreport` command, type one of the following commands:

```
omhelp omreport
omreport -?
```

The `omreport` command displays reports of the management information of the system.



 **NOTE:** For an overall summary of the CLI commands, type `omhelp`.

Table 1-1 lists the primary CLI commands used by Server Administrator. This guide contains a section for each primary command.

Table 1-1. CLI Commands and Sections in This Guide

Primary CLI Command	Section Title	Related Sections
<code>omconfig</code>	"omconfig: Managing Components Using the Instrumentation Service" on page 91	"omconfig system or servermodule assetinfo: Editing Cost of Ownership Values" on page 177
<code>omhelp</code>	"Using the omhelp Command" on page 27	
<code>omreport</code>	"omreport: Viewing System Status Using the Instrumentation Service" on page 31	

 **NOTE:** The `omupdate` commands are no longer supported in Server Administrator and are replaced by Dell Update Package or the Server Update Utility commands. To update the different components, download the Dell Update Package and run the `<package name> /s [/f]` command. For more information on the

corresponding CLI syntax, see the *Dell Update Packages for Operating Systems User's Guide* or the *Dell OpenManage Server Update Utility User's Guide* at dell.com/support/manuals.

Additional useful topic about the CLI include:

- "Working With CLI Command Results" on page 295

CLI Error Checking and Error Messages

When you type CLI commands, the CLI checks these commands for correct syntax. If you type a command and the command is executed successfully, a message is displayed, stating that the command is successful.

Success Messages

When you run a successful **omconfig** command, data for that component is displayed.

The following table provides examples of valid **omconfig** commands and their success messages.

Table 1-2. Commands and Messages

Command	Message
<code>omconfig chassis temps index=0 warnthresh= default</code>	Temperature probe warning threshold value(s) set successfully.
<code>omconfig chassis biossetup attribute=numlock setting=on</code>	BIOS setup configured successfully. Change will take effect after the next reboot.
<code>omconfig system assetinfo info=depreciation duration=6</code>	Asset information set successfully.



NOTE: Due to limitations, some commands do not alter the system settings even though the commands are executed successfully. This is an expected behavior.

Failure Messages

CLI failure messages provide reasons why some commands do not succeed. Some common reasons why commands fail include syntax errors and components that are not present. Many error messages provide syntax information required to execute the command successfully.

If you execute a command for a component or feature that is not present in the system configuration, the error message states that the component is not present.

Command:

```
omconfig chassis volts index=3 minwarnthresh=
3.3000
```

Message:

```
Error! Number with up to 3 digits after decimal
point expected, read 3.3000
```

```
The value given by the command specifies more than
3 digits after the decimal point. A valid minimum
warning threshold value for volts contains up to
3 digits after the decimal point.
```

Revised command:

```
omconfig chassis volts index=3 minwarnthresh=3.300
```

When you type the revised command with three decimal points, you receive another error message:

```
Error! This voltage probe min warning threshold
must be between 11.400 and 12.480.
```

Revised command:

```
omconfig chassis volts index=3 minwarnthresh=
11.500
```

Message:

```
Voltage probe warning threshold(s) set
successfully.
```

Scripting and Comparing Using CLI

The Server Administrator CLI allows administrators to write batch programs for the operating system. For an enterprise with many systems, an administrator could write a configuration script that specified the warning thresholds for each major component of a system and also specified a set of actions that the administrator wants each system to take in case of a warning or failure event. In the most critical cases, the administrator could write a script so that the system shuts down to prevent damage. The administrator could then distribute and execute the script to many managed systems at the same time. Such a scenario facilitates configuring any number of new systems acquired by a company and makes implementation of new system administration policies easier across many existing systems that require reconfiguration.

A similar scenario is used to populate a large number of newly acquired systems with detailed asset information. Much of the information are the same, such as the manufacturer or lessor of the system, whether support for the system is outsourced, name of the company providing insurance for the system, method of depreciation, and so on. Any variable that is common to all systems is scripted, sent to all managed systems, and executed. Asset information that is unique to a system is scripted as a group and sent to that managed node for execution. For example, a script could specify values for all unique variables such as the owner, primary user phone number, asset tag, and so on. Scripts to populate unique values would set all unique variables at once rather than one by one through the system's command line.

In many cases, the CLI allows a user with a very well-defined task in mind to retrieve information about the system rapidly. If a user wants to review a comprehensive summary of all system components and save that summary information to a file for comparison with later system states, the CLI is ideal.

Using CLI commands, administrators can write batch programs or scripts to execute at specific times. When these programs execute, they can capture reports on components of interest, such as fan RPMs during periods of highest system usage compared with the same measurements at times of lowest system usage. Command results are routed to a file for later analysis. Reports can help administrators gain information that are used to adjust usage patterns, to justify purchasing new system resources, or to focus on the health of a problem component.

Command Syntax Overview

Commands vary in complexity. The simplest command has only command level 1. The **omhelp** command is a simple command. When you type `omhelp`, a list of the main CLI commands is displayed.

The next level of complexity includes commands that contain command levels 1 and 2. All of the **about** commands are examples of command level 2 complexity. The **omconfig about** and **omreport about** commands display a very brief summary. The summary shows version information for the systems management software installed on the system; for example, Server Administrator 1.x.

Some commands have command level 1 and command level 2 and one name=value pair. Consider the following example command that instructs Server Administrator for more details about the environment for Server Administrator:

```
omreport about details=true
```

Command level 1 is **omreport**, command level 2 is **about**, and the name=value pair is **details=true**.

Many commands use command level 1, command level 2, and command level 3, but do not require any parameters (name=value pairs.) Most **omreport** commands are of this type. For example, the following command displays a list of alert actions that are configured for components on a system.

```
omreport system alertaction
```

The most complex commands have all three command levels and can have multiple name=value pairs. The following is an example of two name=value pairs:

```
omconfig system assetinfo info=depreciation
duration=3
```

The following is an example of nine name=value pairs:

```
omconfig system assetinfo info=acquisition
purchasecost=<n> waybill=<n> installdate=<mmddy>
purchasedate=<mmddy> ponum=<n> signauth=<text>
expensed=<yes / no> costcenter=<text>
```


In each chapter of this document, command syntax and other information about the commands are formatted using any of the following fields as appropriate:

command
level 1

command
level 2

command
level 3

name=value
pair 1

name=value
pair 2

Using the omhelp Command

The **omhelp** command and its equivalent, `<command> -?`, accesses the detailed help text interface of command line interface (CLI). You can get help at several levels of detail.

Each fully-qualified CLI command may have a variable number of distinct parts: the command (command level 1), one or more subcommands (command level 2 and command level 3, if present), and one or more name=value pair(s.)

By appending `-?` (space-dash-question mark) to any command, you can get help for that command.

Example Help Commands

When you type `omconfig -?`, you get general help about the **omconfig** command. The help at this level lists the available subcommands for **omconfig**:

- about
- preferences
- chassis
- system

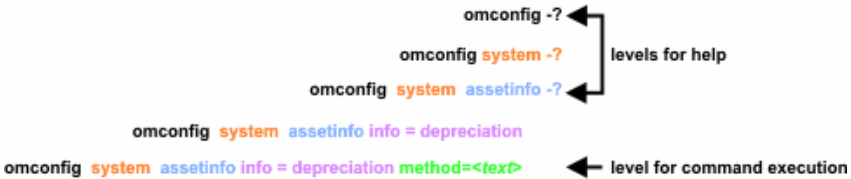
When you type `omconfig system -?`, CLI help lists all the subcommands available for **omconfig system**:

- alertaction
- alertlog
- assetinfo
- cmdlog
- esmlog
- events
- platformevents
- pedestinations

- recovery
- shutdown
- thrmsshutdown
- webservers

Figure 2-1 shows the levels of help for a command.

Figure 2-1. Different Levels of Help for a Command



Also parse the `omconfig system assetinfo` command as follows:

```
<command level 1 command level 2 command level 3>
<name=value pair 1> [name=value pair 2]
```

where command levels 1, 2, and 3 are represented by `omconfig system assetinfo`, name=value pair 1 is represented by `info=depreciation`, and name=value pair 2 is represented by `method=straightline`.

To set the depreciation method to straight line, type:

```
omconfig system assetinfo info=depreciation
method=straightline
```

The CLI responds with the following message:

```
Asset information set successfully.
```

When you type `omconfig system assetinfo -?`, the help that is displayed provides information about assigning values for the name and option fields. Partial results for the request `omconfig system assetinfo -?` are as follows:

```
assetinfo          Set asset information.
```

For one info value, specify one or more optional parameter(s.) Table 2-1 lists the optional parameters for **info=acquisition**:

Table 2-1. Optional Parameters

Info Value	Optional parameters
Info=acquisition	purchasecost = <num> waybill = <num> installdate = <mmddy> purchasedate = <mmddy> ponum = <num> signauth = <text> expensed = <yes no> costcenter = <text> info = depreciation method = <text> duration = <num> percent = <percent> unit = <months years unknown>

omreport: Viewing System Status Using the Instrumentation Service

The **omreport** command allows you to see detailed information about the system components. You can also retrieve summaries for many system components at one time, or get details about a specific component. This chapter shows you how to get reports with the level of detail that you want.

Commands documented in this chapter vary in whether they define the fields that appear in the results of a particular **omreport** command. The fields are defined only if they have a special or less familiar use.

As with all other components, use **omreport** to *view* component status, and **omconfig** to *manage* a component. For information on configuring components for management, see "omconfig: Managing Components Using the Instrumentation Service" on page 91.

Use the **omreport** commands to get information you need to execute an **omconfig** command. For example, to edit the minimum temperature for a warning event on a temperature probe, you must know the index of the probe you want to configure. Use **omreport chassis temps** to display a list of probes and their indexes.

The **omreport** commands available on the system depend on the system configuration. Table 3-1 lists the systems on which the **omreport** commands are applicable.

Table 3-1. System Availability for the omreport Command

Command Level 1	Command Level 2	Applicable To
omreport	modularencllosure	Blade systems
	servermodule	Blade systems
	mainsystem	Blade systems
	system	Rack and Tower systems
	chassis	Rack and Tower systems
	preferences	Blade or Rack, and Tower systems

Conventions for Parameter Tables

When listing the parameters for a command, the parameters are listed in alphabetical order instead of the order in which they appear in the command line interface (CLI).

The symbol |, often called *pipe*, is the logical *exclusive or* operator. For example, enable | disable means enable or disable the component or feature.

Command Summary of the `omreport` Command

Although this chapter lists all possible `omreport` commands, the commands available on the system depend on the system configuration. The results of the `omreport` command may vary from one system to another. The `omreport` command displays data for the installed components only.



NOTE: When a system includes an external chassis, the displayed results vary by operating system. On SUSE Linux Enterprise Server and Red Hat Enterprise Linux systems, `omreport` commands display external chassis information in a separate section after the main chassis information. On Microsoft Windows systems, data about the external chassis does not appear in the `omreport` output.

Table 3-2 provides a high-level summary of the `omreport` command. The column titled **Command level 1** shows the `omreport` command at its most general use. **Command level 2** shows the major objects or components that you can view using `omreport` (about, chassis, storage, and system). **Command level 3** lists the specific objects and components to view reports. **User privilege required** refers to the type of privilege you need to run the command, where U=User, P=Power User, and A=Administrator. **Use** is a very general statement about the actions performed using `omreport`. More details about the syntax and use of the command appear later in this section.

Table 3-2 lists the `omreport` commands available for about, system, and main system chassis. For information about viewing storage components, see "omreport: Viewing System Status Using the Instrumentation Service" on page 31.

Table 3-2. Command Level 1, Level 2, and Level 3 for omreport

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
omreport				
	modularencllosure		U, P, A	Displays the information for all the modular chassis.
	about		U, P, A	Displays the version number and properties for Server Administrator.
		details=true	U, P, A	Displays the information for all the Server Administrator programs installed.
	chassis or mainsystem		U, P, A	Displays the general status of all the main components.
		acswitch	U, P, A	Displays the failover settings where redundant AC power lines are supported in a system.
		batteries	U, P, A	Displays the properties set for batteries.
		bios	U, P, A	Displays the BIOS information such as manufacturer, version, and release date.
		biossetup	A	Displays the BIOS setup properties configured during system boot.

Table 3-2. Command Level 1, Level 2, and Level 3 for omreport (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		fans	U, P, A	Displays the status and thresholds for system fans.
		firmware	U, P, A	Displays the name and version of the firmware.
		frontpanel	U, P, A	Displays whether the front panel button settings, such as the Power button and/or Nonmasking Interrupt (NMI) button (if present on the system), are enabled or disabled. It also displays the front panel encryption access information and the front panel LCD information.
		fru	U, P, A	Displays the Field Replaceable Unit (FRU) information.
		hwperformance	U, P, A	Displays the status and cause for the system's performance degradation.
		info	U, P, A	Displays a status summary for main system chassis components.
		intrusion	U, P, A	Displays the status of the system's intrusion sensor(s.)

Table 3-2. Command Level 1, Level 2, and Level 3 for omreport (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		leds	U, P, A	Displays the properties you have set for light-emitting diodes to flash under various alert conditions.
		memory	U, P, A	Displays properties of the system's memory arrays.
		nics	U, P, A	Displays the NIC and Team interface properties.
		ports	U, P, A	Displays the properties for the system's parallel and serial ports, such as I/O address, IRQ level, connector type, and maximum speed.
		processors	U, P, A	Displays properties of the system's processors, including speed, manufacturer, and processor family.
		pwrmanagement	U, P, A	Displays power inventory details such as system idle power, system maximum potential power, and power budget information.
		pwrmonitoring	U, P, A	Displays properties of power consumption.
		pwrsupplies	U, P, A	Displays the properties of power supplies.

Table 3-2. Command Level 1, Level 2, and Level 3 for omreport (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		remoteaccess	U, P, A	Displays general information on remote access.
		slots	U, P, A	Displays the properties of the system's expansion slots and other slot types.
		temps	U, P, A	Displays the status and thresholds for the system temperature sensors.
		volts	U, P, A	Displays the status and thresholds for the system voltage sensors.
		removableflash media	U, P, A	Displays the system's virtual flash (vFlash) and secure digital (SD) card details.
	storage		U, P, A	See "Using the Storage Management Service" on page 197.
	system or servermodule		U, P, A	Displays a high-level summary of system components.
		alertaction	U, P, A	Displays the warning and failure threshold values, as well as actions configured when an essential component detects a warning or failure state.

Table 3-2. Command Level 1, Level 2, and Level 3 for omreport (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		alertlog	U, P, A	Allows the administrator to display the alert log.
		assetinfo	U, P, A	Displays the cost of ownership information for the system.
		cmdlog	U, P, A	Allows the administrator to display the command log.
		esmlog	U, P, A	Allows the administrator to display the hardware log.
		events	U, P, A	Displays the system's Simple Network Management Protocol (SNMP) event settings.
		operatingsystem	U, P, A	Displays the name and version of the operating system.
		pedestinations	U, P, A	Displays the destinations to send the configured alerts for platform events.
		platformevents	U, P, A	Displays the system's response for each listed platform event.
		recovery	P, A	Displays how the system is configured to respond to a hung operating system.
		shutdown	P, A	Displays how to perform the shutdown action.

Table 3-2. Command Level 1, Level 2, and Level 3 for omreport (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		summary	U, P, A	Displays the key facts for all system components, including main system chassis, software, and storage.
		thrmshutdown	P, A	Displays how to perform the shutdown action, if any, when a temperature warning or failure condition is detected.
		version	U, P, A	Displays a summary for all updatable components on the system.
	preferences	webservice	U, P, A	Displays the URL information of the Server Administrator Web server.

Help With the omreport Command

Use the `omreport -?` command to get a list of the available commands for `omreport`.

Use `omreport <command level 2> -?` to get help on the level 2 about, chassis, and system commands. The following information on `omreport system -?` also applies to get help for the `omreport chassis` command.

To see a list of valid commands for `omreport system`, type:

```
omreport system -? | more
```

omreport modularencllosure

Use the `omreport modularencllosure` command to view details of the Blade system. Type:

```
omreport modularencllosure
```



NOTE: This CLI command is available when Dell OpenManage Server Administrator is installed on Dell Blade systems.

Server Administrator displays information related to the modular enclosure and chassis management controller CMC (if available):



NOTE: The output varies depending on the configuration of the system.

```
Modular Chassis Information
```

```
Chassis Information
```

```
Attribute      : Model
```

```
Value          : Modular Server Enclosure
```

```
Attribute      : Lock
```

```
Value          : true
```

```
Attribute      : Service Tag
```

```
Value          : 8RLNB1S
```

```
Attribute      : Express Service Code
```

```
Value          : 18955029124
```

CMC Information

```
Attribute      : Product
Value          : Chassis Management Controller (CMC)
Attribute      : Description
Value          : The system component provides a
                complete set of remote management
                functions for Dell systems.
Attribute      : Version
Value          : 3.20
Attribute      : IP Address
Value          : 101.102.103.104
Attribute      : IP Address Source
Value          : Dynamic Source
Attribute      : IP Address Type
Value          : IPv4
Attribute      : Remote Connect Interface
Value          : Launch CMC Web Interface
```

omreport about

Use the **omreport about** command to learn the product name and version number of the systems management application installed on the system. The following is an example output from the **omreport about** command:

```
Product name :Dell OpenManage Server Administrator
Version      :x.x.x
Copyright    :Copyright (C) Dell Inc. xxxx-xxxx. All
                rights reserved.
Company      :Dell Inc.
```

For details about the environment for Server Administrator, type:

```
omreport about details=true
```


Server Administrator includes a number of services, each of which has a version number of its own. The **Contains** field reports version numbers for the services as well as other useful details. The following output is an example, and can change depending on the system's configuration and the version of Server Administrator installed on the system:

```
Contains: Instrumentation Service 7.x.x
          Storage Management 4.x.x
          Sun Java Runtime Environment 1.x.x_xx
          Secure Port Server 7.x.x
          Server Administrator Core Files 7.x.x
          Instrumentation Service Integration Layer
          7.x.x
          Server Administrator Common Framework 7.x.x
          Common Storage Module 4.x.x
          Data Engine 7.x.x
          Instrumentation Service 7.x.x
```

omreport chassis or omreport mainsystem Commands

Use the **omreport chassis** or **omreport mainsystem** commands to view details for the entire chassis or for a particular component.

omreport chassis or omreport mainsystem

Type:

```
omreport chassis
```

or

```
omreport mainsystem
```

Server Administrator displays a general status for the main system chassis or main system components.

Health

Main System Chassis

SEVERITY	: COMPONENT
Ok	: Fans
Critical	: Intrusion
Ok	: Memory
Ok	: Power Supplies
Ok	: Temperatures
Ok	: Voltages

omreport chassis acswitch or omreport mainsystem acswitch

Use the `omreport chassis acswitch` or `omreport mainsystem acswitch` command if the system has redundant AC power lines that are configured in a failover arrangement. Type:

```
omreport chassis acswitch
```

or

```
omreport mainsystem acswitch
```

Server Administrator displays the following output:

```
AC Failover Switch
AC Switch Redundancy
Redundancy Status      : Full
Number of devices     : 2
required for full
redundancy
Redundancy Mode       :
Redundancy            : Input Source Line 1, upon
Configuration         redundancy restoration,
                      return to Line 1

AC Power Lines
Status                : Ok
Location              : AC Power Line 1
```

```
AC Present           : Power Present
Active Source       : Active
Status              : Ok
Location            : AC Power Line 2
AC Present          : Power Present
Active Source       : Not Active
```

Server Administrator reports values for the **Redundancy Status** and **Redundancy Mode** fields.

omreport chassis batteries or omreport mainsystem batteries

Use the **omreport chassis batteries** or **omreport mainsystem batteries** command to view battery properties. Type:

```
omreport chassis batteries
```

or

```
omreport mainsystem batteries
```

Server Administrator displays the summary of the battery information for the system.

omreport chassis bios or omreport mainsystem bios

Use the **omreport chassis bios** or **omreport mainsystem bios** command to view the current BIOS information. Type:

```
omreport chassis bios
```

or

```
omreport mainsystem bios
```

Server Administrator displays the summary of the BIOS information for the system.


omreport chassis biossetup or omreport mainsystem biossetup

Use the `omreport chassis biossetup` or `omreport mainsystem biossetup` command to view BIOS setup parameters that are normally available only during system boot. Type:

```
omreport chassis biossetup
```

or

```
omreport mainsystem biossetup
```

 **NOTE:** To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

To view the BIOS Setup parameters in short form, type:

```
omreport chassis biossetup display=shortnames
```

Table 3-3 lists the available BIOS setup parameters on systems prior to PowerEdge *yx2x* systems.


 **NOTE:** All the BIOS Setup parameters are not displayed. Only those BIOS setup properties configured during system boot are displayed.

Table 3-3. BIOS Setup Parameters on Systems Prior to Dell PowerEdge *yx2x* System

Parameters	Description
Bootsequence	Displays the device used to boot the system.
Numlock	Displays whether the keypad is used as number keys.
Embedded Video Controller	Displays whether the Embedded Video Controller option is enabled or disabled.
Boot Mode	Displays whether the boot mode is configured to BIOS or Unified Extensible Firmware Interface (UEFI.)
Processor C1-E	Displays the Processor C1-E status.
CPU Execute Disable	Displays whether the Execute Disable (XD) option is enabled or disabled.
Processor C State Control	Displays whether the Processor C State Control option is enabled or disabled.
Processor CMP	Displays the number of cores enabled per processor.

Table 3-3. BIOS Setup Parameters on Systems Prior to Dell PowerEdge yx2x System (continued)

Parameters	Description
User accessible USB Ports	Displays whether the user-accessible USB port is enabled or disabled.
CPU Virtualization Technology	Displays the additional hardware capabilities provided by Virtualization Technology.
AC Power Recovery Mode	Displays the system state when input power is restored after an outage.
Embedded SATA Controller	Displays whether the embedded SATA controller is set to ATA mode, RAID mode, or is disabled.
SATA Port 0	Displays the state of SATA port 0.
SATA Port 1	Displays the state of SATA port 1.
Dual NIC (1/2)	Displays whether NIC 1 and NIC 2 with PXE/iSCSI is enabled or disabled.
Dual NIC (3/4)	Displays whether NIC 3 and NIC 4 with PXE/iSCSI is enabled or disabled.
NIC 1	Displays whether the first NIC is enabled (with or without PXE/iSCSI) or disabled during system boot.
NIC 2	Displays whether the second NIC is enabled (with or without PXE/iSCSI) or disabled during system boot.
NIC 3	Displays whether the third NIC is enabled (with or without PXE/iSCSI) or disabled during system boot.
NIC 4	Displays whether the fourth NIC is enabled (with or without PXE/iSCSI) or disabled during system boot.
Trusted Cryptographic Module (TCM)	Displays whether TCM is on or off.
Trusted Platform Module (TPM) Security	Displays whether TPM is off, on with pre-boot measurements, or on without pre-boot measurements.
Internal USB Port (number)	Displays whether the internal USB is enabled or disabled. NOTE: Server Administrator may not display the USB sequence number if there is only one USB port on the system.

Table 3-3. BIOS Setup Parameters on Systems Prior to Dell PowerEdge yx2x System (continued)

Parameters	Description
Operating System Watchdog Timer	Displays whether the operating system watchdog timer is enabled or disabled.
HT Assist	Displays the status of the probe filter chipset option.
Internal SD Card	Displays whether the internal SD card is enabled or disabled.
Bezel	Displays whether the bezel removal intrusion check during system reboot is enabled or disabled.
Console Redirection	Displays whether the BIOS screen is redirected over a particular serial port or if it is turned off.
Diskette	Displays whether the diskette is disabled, auto enabled, or read-only.
Demand Based Power Management (DBS)	Displays whether DBS is enabled or disabled on the system.
Embedded Hypervisor	Displays whether the embedded hypervisor is enabled or disabled.
IDE	Displays whether the drive is enabled or disabled.
IDE Primary Drive 0	Displays whether the device is automatically detected and enabled or if the device is disabled.
IDE Primary Drive 1	Displays whether the device is automatically detected and enabled or if the device is disabled.
Intrusion	Displays whether the intrusion check is enabled or disabled during system boot.
Mouse	Displays whether the mouse is enabled or disabled.
Optical Drive Controller	Displays whether the optical drive controller is enabled or disabled.
Parallel port address	Displays whether the address is located on LPT1, LPT2, and LPT3, or if it is disabled.
Parallel port mode	Displays the setting associated with the parallel port.
Primary SCSI	Displays whether the device is on or off.

Table 3-3. BIOS Setup Parameters on Systems Prior to Dell PowerEdge yx2x System (continued)

Parameters	Description
RAID on motherboard	Displays whether RAID-on-motherboard is detected as a RAID device, a SCSI device, or if the device is disabled during system boot.
RAID Channel A	Displays whether RAID-on-motherboard Channel A is detected as a RAID device or a SCSI device.
RAID Channel B	Displays whether RAID-on-motherboard Channel B is detected as a RAID device or a SCSI device.
SATA	
Serial Port 1	Displays whether serial port 1 is mapped to a COM port, a COM port 1, a COM port 3, a COM1 BMC, a BMC Serial, a BMC NIC, a BMC RAC, or is disabled.
Serial Port 2	Displays whether serial port 2 is mapped to a COM port, a COM port 2, a COM port 4, or is disabled.
Speaker	Displays whether the speaker is on or off.
USB or USBB	Displays whether the USB port is enabled or disabled.
Secondary SCSI	Displays whether the device is enabled or disabled.
Serial Communications	Displays whether COM port 1 and COM port 2 are off or on with or without console redirection.
Console Redirection After Boot	Displays whether console redirection after system reboot is enabled or disabled.
External Serial Connector	Displays whether the external serial connector is mapped to Serial Device 1, Serial Device 2, or a Remote Access Device.
Console Redirection Failsafe Baud Rate	Displays the setting for console redirection failsafe baud rate.
Serial Address Select	Displays port address for the serial devices.

To view all available boot devices, alias names, and boot order sequences, type:

```
omreport chassis biossetup attribute=bootorder
```



NOTE: In Linux systems, user or user groups upgraded to administrator or administrator groups cannot view the boot order sequence.

Table 3-4 lists the available groups of the BIOS setup parameters on PowerEdge yx2x systems.


 **NOTE:** Based on the hardware configuration, the attributes may vary in a specific group.

Table 3-4. BIOS Setup Groups on PowerEdge yx2x Systems

Group	Description
BIOS Boot Settings	Controls the system boot settings when bootmode is set to bios .
Boot Settings	Controls the system boot settings when bootmode is set to bios .
Embedded Server Management	Sets up the Embedded Server Management options.
Integrated Devices	Controls the devices integrated on the system board.
Memory Settings	Controls the system memory settings.
Miscellaneous Settings	Controls some miscellaneous system settings.
One-Time Boot	Supports one-time boot to a specified device.
Processor Settings	Controls the processor(s) settings of the system.
SATA Settings	Control the embedded SATA ports settings.
Serial Communication	Controls the Serial Communication options.
Slot Disablement	Controls the system slots that are present on the system.
System Information	Displays the information that uniquely identifies the system.
System Profile Settings	Controls the power management settings.
System Security	Controls the security features of the system.
UEFI Boot Settings	Controls the system boot settings when boot mode is set to uefi .

omreport chassis currents or omreport mainsystem currents

This command is no longer available through Server Administrator.

omreport chassis removableflashmedia or omreport mainsystem removableflashmedia

Use the `omreport chassis removableflashmedia` or `omreport mainsystem removableflashmedia` to view the removable flash media details on the system along with its health status. Type:

```
omreport chassis removableflashmedia
```

or

```
omreport mainsystem removableflashmedia
```

Server Administrator displays a summary of the system's removable flash media information.



NOTE: If the vFlash or SD card size is less than 1 GB, the size is displayed in MB.

Depending on the configuration of the system, you may notice the following output:

```
Removable Flash Media Information
```

```
Health : Critical
```

```
Internal Dual SD Module Redundancy: Critical
```

```
Attribute           : Redundancy
```

```
Value               : Lost
```

```
Internal SD Modules Status
```

```
Status              : OK
```

```
Connector Name      : System Board SD Status 1
```

```
State                : Present
```

```
Storage Size        : 512 MB
```

```
Status : OK
Connector Name : System Board SD Status 2
State : Present
Storage Size : 512 MB
VFlash Media Details
Connector Name : System Board SD Status 1
Type : vFlash SD Card
State : Present
Available Size : 472 MB
Storage Size : 512 MB
```

omreport chassis fans or omreport mainsystem fans

Use the `omreport chassis fans` or `omreport mainsystem fans` command to view the fan probe status and settings. Type:

```
omreport chassis fans index=n
```

or

```
omreport mainsystem fans index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays a summary of status, readings, and thresholds set for any fan probes that are present on the system. If you specify the **index**, Server Administrator displays a summary for a specific fan probe.

omreport chassis firmware or omreport mainsystem firmware

Use the `omreport chassis firmware` or `omreport mainsystem firmware` command to view current firmware properties. When you type:

```
omreport chassis firmware
```

or

```
omreport mainsystem firmware
```

Server Administrator displays a summary of the system's firmware properties.



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.



NOTE: If iDRAC is installed, Server Administrator displays the Life Cycle Controller (LCC) version. If BMC is installed, Server Administrator displays the Unified Server Configurator (USC) version.

omreport chassis frontpanel or omreport mainsystem frontpanel

Use the **omreport chassis frontpanel** or **omreport mainsystem frontpanel** command to view if the front panel button control settings, such as the **Power** button and/or **Nonmasking Interrupt (NMI)** button (if present on the system), are enabled or disabled.

If the **Power** button override is present on the system, check whether the **Power** button override is enabled or not. If enabled, the **Power** button turns the power to the system **On** and **Off**.

If the **NMI** button is present on the system, check whether the **NMI** button is enabled or not. Use the **NMI** button to troubleshoot software and device errors when using certain operating systems.

The **Front Panel LCD Security Access** displays if the front panel encryption access information is set to **View**, **Modify**, or **Disable**.

The **Front Panel LCD Information** displays information such as service tag, remote indication status, and so on.

omreport chassis fru or omreport mainsystem fru

Use the **omreport chassis fru** or **omreport mainsystem fru** command to view FRU information. When you type:

```
omreport chassis fru
```

or

```
omreport mainsystem fru
```

Server Administrator displays a summary of the system's FRU information. This information is available in the Server Administrator GUI, SNMP, and Common Information Model and is primarily used to support troubleshooting activities.

omreport chassis hwperformance or omreport mainsystem hwperformance

Use the `omreport chassis hwperformance` or `omreport mainsystem hwperformance` command to view the status and cause for the system's performance degradation. When you type:

```
omreport chassis hwperformance
```

or

```
omreport mainsystem hwperformance
```

Server Administrator displays a summary of the system's hardware performance degradation information.



NOTE: This command is applicable only to selected Dell *yx0x* systems that support PMBus.

Depending on the system's configuration, you may notice the following output:

```
Hardware Performance
```

```
Index                : 0
Probe Name           : System Board Power Optimized
Status               : Normal
Cause                : [N/A]
```

omreport chassis info or omreport mainsystem info

Use the `omreport chassis info` or `omreport mainsystem info` command to see a summary of installed component versions. Type:

```
omreport chassis info index=n
```

or

```
omreport mainsystem info index=n
```

The **index** parameter specifies a chassis number and is optional. If you do not specify the **index**, Server Administrator displays summary chassis information for each chassis. If you specify the **index**, Server Administrator displays summary information for a specific chassis.



NOTE: If iDRAC is installed, Server Administrator displays the LCC version. If BMC is installed, Server Administrator displays the USC version.

Depending on the system's configuration, you may notice the following output:

```
Index                : 0
Chassis Name         : Main System Chassis
Host Name            : WIN-27C02UQFV6L
iDRAC7 Version       : 1.00
Chassis Model        : PowerEdge R720
Chassis Lock         : Present
Chassis Service Tag  : 7654321
Express Service Code : 15608862073
Chassis Asset Tag    : c
```

omreport chassis intrusion

Use the **omreport chassis intrusion** command to find out whether the cover of the system is open or not. Server Administrator tracks chassis intrusion events because intrusions may indicate an attempt to steal a system component, or to perform unauthorized maintenance on the system. Type:

```
omreport chassis intrusion
```

A message that resembles the following is displayed:

Intrusion Information

```
Health                : Ok
Index                 : 0
Status                : OK
Probe Name            : Intrusion
State                 : Chassis is closed
```

omreport chassis leds or omreport mainsystem leds

Use the **omreport chassis leds** or **omreport mainsystem leds** command to find out whether clear hard drive fault is supported and what severity level lights up the LED. Type:

```
omreport chassis leds index=n
or
omreport mainsystem leds index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays a summary of LED information for chassis 0. If you specify the **index**, Server Administrator displays a summary for a specific chassis.

The following is an example output:

```
Main System Chassis
Flash chassis identify LED state      : Off
Flash chassis identify LED timeout
value                                  : 300
```

omreport chassis memory or omreport mainsystem memory

Use the **omreport chassis memory** or **omreport mainsystem memory** to view details for each memory module slot in the system. If the system supports redundant memory, this command also displays the status, state, and type of memory redundancy implemented on the system. Type:

```
omreport chassis memory index=n
```

or

```
omreport mainsystem index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays information for all memory modules on the system. If you specify the **index**, Server Administrator displays a summary for a specific memory module.



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

Output for an occupied memory slot may resemble the following:

```
Index           : 1
Status          : Ok
Connector Name  : DIMM_A1
Type           : DDR3 - Synchronous Unregistered
                <Unbuffered>

Size           : 2048 MB
```

An unoccupied memory slot still has a connector name. Output for an unoccupied memory slot may resemble the following:

```
Index           :
Status          : Unknown
Connector Name  : DIMM_A2
Type           : [Not Occupied]
Size           :
```

If the system supports redundant memory, the redundancy output may resemble the following:

```
Memory Redundancy
Redundancy Status      : Full
Fail Over State        : Inactive
Redundancy
Configuration          : DDDC
Attributes of Memory
Array(s)
Attributes              : Location
Memory Array 1         : System Board or Motherboard
Attributes              : Use
Memory Array 1         : System memory
Attributes              : Installed Capacity
Memory Array 1         : 131072 MB
Attributes              : Maximum Capacity
Memory Array 1         : 1048576 MB
Attributes              : Slots Available
Memory Array 1         : 32
Attributes              : Slots Used
Memory Array 1         : 32
Attributes              : Error Correction
Memory Array 1         : Multibit ECC
```

omreport chassis nics or omreport mainsystem nics

Use the `omreport chassis nics` or `omreport mainsystem nics` command to view NIC and Team interface details. On XenServer, the command displays all the installed NICs, regardless of driver installation.



NOTE: The order in which devices are detected is not guaranteed to match the physical port ordering of the device.

To view NIC properties, type:

```
omreport chassis nics index=n
```

or

```
omreport mainsystem nics index=n
```


The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays properties of all NICs on the system and the values for the following fields: **Index** (NIC card number), **Interface Name**, **Vendor**, **Description**, **Connection Status**, and **Slot**.

If you specify the **index**, Server Administrator displays properties for a specific NIC and the values for the following fields: **Physical Interface**, **Interface name**, **IPv4 Addresses**, **IPv6 Addresses**, **Physical Interface Receive Statistics**, **Physical Interface Transmit Statistics**, **Interface Receive Statistics**, and **Interface Transmit Statistics**.



NOTE: The Fibre Channel over Ethernet (FCoE) and iSCSI over Ethernet (iSoE) features of Converged Network Adapter (CNA) cards are not supported on VMware ESX and VMware ESXi systems.

To view Team interface properties, type:

```
omreport chassis nics config=team index=n
```

or

```
omreport mainsystem nics config=team index=n
```



NOTE: This command is applicable only if Team interface is configured in the system. Team interface is configured using NIC vendor tools, such as Broadcom.

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays details of all the Team interfaces on the system and the values for the following fields: **Index** (NIC card number), **Interface Name**, **Vendor**, **Description**, and **Redundancy Status**.

If you specify the **index**, Server Administrator displays the Team interface details for the specific NIC and the values for the following fields: **Team Interface**, **Interface**, **IPv4 Addresses**, **IPv6 Addresses**, **Team Interface Receive Statistics**, **Team Interface Transmit Statistics**, **Interface Receive Statistics**, and **Interface Transmit Statistics**.

omreport chassis ports or omreport mainsystem ports

Use the **omreport chassis ports** or **omreport mainsystem ports** command to view properties of the system's parallel and serial ports.

Server Administrator displays values for the following fields: **Port Type**, **External Name**, **Base I/O Address**, **IRQ Level**, **Connector Type**, and **Maximum Speed**.

Port Type is the detailed type of each system port, from the more general serial, parallel, and USB ports to the names of ports by device type connected to it, for example, pointing device or keyboard.

External Name is the name of the port, such as serial or parallel, USB, mouse, keyboard, and so on.

Base I/O Address is the starting I/O address expressed in hexadecimal.

IRQ Level is a hardware interrupt on a system. The hardware interrupt signals the system's CPU that an event has started or ended in a peripheral component such as a modem or printer. When communicated over a peripheral component interconnect card, the **IRQ** level is a standard way to identify the type of device that is sending the interrupt request.

Connector Type refers to the type of plug or cable and plug that connects two devices together, in this case, the type of connector that attaches an external device to a system. There are many connector types, each designed to connect a different device type to a system. Examples include DB-9 Male, AT, Access Bus, PS/2, and so on.

Maximum Speed is the port speed. Port speed refers to the data transmission rate of an input/output channel, measured in numbers of bits per second. Serial ports usually have a maximum speed of 115 Kbps and USB version 1.x ports have a maximum speed of 12 Kbps.

omreport chassis processors or omreport mainsystem processors

Use the **omreport chassis processors** or **omreport mainsystem processors** command to view properties of the system's processors.

Server Administrator displays values for the following fields: **Index**, **Status**, **Connector Name**, **Processor Brand**, **Processor Version**, **Current Speed**, **State**, and **Core Count**.

Index is the processor number.

Status is the current status of the processor.

Connector Name is the name or number of the device that occupies the processor slot in the system.

Processor Brand is the type of processor made by a manufacturer such as Intel Itanium, Intel Pentium III, Intel Xeon, or AMD Opteron.

Processor Version is the model and stepping number of the processor.

Current Speed is the actual processor speed in MegaHertz at system boot time.

State is whether the processor slot is enabled or disabled.

Core Count is the number of processors integrated into one chip.

Capabilities and Cache Properties of a Specific Processor

To view the cache properties of a processor on a given connector, type:

```
omreport chassis processors index=n
```

or

```
omreport mainsystem processors index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays properties for all processors. If you specify the **index**, Server Administrator displays properties for a specific processor.

The following fields are defined for the capabilities present on a particular microprocessor:

For Intel Processor

- 64-bit Support
- Hyperthreading (HT)
- Virtualization Technology (VT)
- Demand-Based Switching (DBS)
- Execute Disable (XD)
- Turbo Mode

For AMD Processor

- 64-bit Support
- AMD-V
- AMD PowerNow!
- No Execute (NX)

The following fields are defined for a cache present on a particular microprocessor. If the cache is internal to the processor, the fields do not appear in the cache report:

- Speed
- Cache Device Supported Type
- Cache Device Current Type
- External Socket Name



NOTE: Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

Fields Reported for Each Cache on a Particular Processor

The following fields are displayed for each cache on a particular processor:

Status reports whether a specific cache on the processor is enabled or disabled.

Level refers to a primary or secondary cache. Primary-level cache is a memory bank built into the processor. Secondary-level cache is a staging area that feeds the primary cache. A secondary-level cache is built into the processor or resides in a memory chipset outside the processor. The internal processor cache is referred to as a Level 1 (or L1). L2 cache is the external cache in a system with an Intel Pentium processor, and it is the second level of cache that is accessed. The names L1 and L2 are not indicative of where the cache is physically located (internal or external), but describe which cache is accessed first (L1, therefore internal).

Speed refers to the rate at which the cache can forward data from the main memory to the processor.

Max Size is the maximum amount of memory that the cache can hold in kilobytes.

Installed Size is the actual size of the cache.

Type indicates whether the cache is primary or secondary.

Location is the location of the cache on the processor or on a chipset outside the processor.

A **Write Policy** describes how the cache deals with a write cycle. In a write-back policy, the cache acts like a buffer. When the processor starts a write cycle, the cache receives the data and stops the cycle. The cache then writes the data back to the main memory when the system bus is available.

In a write-through policy, the processor writes through the cache to the main memory. The write cycle does not complete until the data is stored into the main memory.

Associativity refers to the way in which main memory content is stored on the cache.

- A fully associative cache allows any line in main memory to store at any location in the cache.
- A n -way set-associative cache directly maps n specific lines of memory to the same n lines of cache. For example, line 0 of any page in memory is stored in line 0 of cache memory.

Cache Device Supported Type is the type of static random access memory (SRAM) that the device can support.

Cache Device Current Type is the type of the currently installed SRAM that the cache is supporting.

External Socket Name Silk Screen Name is the name printed on the system board next to the socket.

Error Correction Type identifies the type of error checking and correction (ECC) that this memory can perform. Examples are correctable ECC or uncorrectable ECC.

This report shows cache information for each cache present on the microprocessor.


omreport chassis pwrmanagement or omreport mainsystem pwrmanagement


Use the `omreport chassis pwrmanagement` or `omreport mainsystem pwrmanagement` command to view the power budget cap and power management profiles of the system. The values display either in Watts or BTU/Hr based on the configuration. Type:

```
omreport chassis pwrmanagement
```

or

```
omreport mainsystem pwrmanagement
```

 **NOTE:** To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

 **NOTE:** The `omreport chassis pwrmanagement` or `omreport mainsystem pwrmanagement` command is applicable from PowerEdge *1x/1x* system onwards that support Power Management Bus (PMBus) and that have hot-swappable power supplies and not systems that have a fixed, non-redundant power supply installed.

For each power management profile in the system, values display for the following fields:

Maximum Performance, Active Power Controller, OS Control, and Custom.

Custom attributes are:

CPU Power and Performance Management, Memory Power and Performance Management, and Fan Power and Performance Management.

The following is an example output:

Power Inventory and Budget

Power Inventory

System Idle Power : 0 W

System Maximum Potential Power : 0 W

Power Budget

Attribute : Enable Power Cap

Values : Enabled

Attribute : Power Cap

Values : 400 W (56%)



NOTE: Power budget requires license to report the details. If the appropriate license is not installed or has expired, the system does not display the power budget details. For more information, see *The Dell Licensing Management Guide* at dell.com/support/manuals.

omreport chassis pwrmonitoring or omreport mainsystem pwrmonitoring

Use the **omreport chassis pwrmonitoring** or **omreport mainsystem pwrmonitoring** command to view the properties of the system's power consumption. The values display either in Watts or BTU/Hr based on the configuration. Type:

```
omreport chassis pwrmonitoring
```

or

```
omreport mainsystem pwrmonitoring
```

For each power monitoring profile in the system, values display for the following fields:

- Power Consumption Status
- Probe Name
- Reading
- Warning Threshold

- Failure Threshold
- Amperage: Location and Reading
- Power Tracking Statistics
- Energy Consumption
- Measurement Start Time
- Measurement Finish Time
- Reading
- System Peak Power
- System Peak Amperage



NOTE: The **omreport chassis pwrmonitoring** or **omreport mainsystem pwrmonitoring** command is applicable from PowerEdge *yx0x* system onwards that support PMBus and that have hot-swappable power supplies and not systems that have a fixed, non-redundant power supply installed.



NOTE: Power monitoring requires license to report the details. If the appropriate license is not installed or has expired, the system does not display the power consumption details of the system. For more information, see *The Dell Licensing Management Guide* at dell.com/support/manuals.



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

Table 3-5. omreport chassis pwrmonitoring or omreport mainsystem pwrmonitoring

name=value pair	Description
config=stats	Reports power statistics in Watts.

The following is an example output:

Power Consumption Information

Power Consumption

Index	: 1
Status	: Ok
Probe Name	: System Board Pwr Consumption
Reading	: 539W
Warning Threshold	: 994W
Failure Threshold	: 1400 W

Amperage

PS1 Current 1	: 1.2 A
---------------	---------

Power Headroom

System Instantaneous Headroom	: 300 W
System Peak Headroom	: 340

Power Tracking Statistics

Statistic : Energy consumption
Measurement Start Time : Thu May 28 11:03:20 2011
Measurement Finish Time : Fri May 28 11:05:46 2011
Reading : 5.9 KWH

Statistics : System Peak Power
Measurement Start Time : Mon May 18 16:03:20 2011
Peak Time : Wed May 27 00:23:46 2011
Peak Reading : 630 W

Statistics : System Peak Amperage
Measured Since : Mon May 18 16:03:20 2011
Read Time : Tue May 19 04:06:32 2011
Peak Reading : 2.5 A



NOTE: Power Management features are only available for PowerEdge systems that have hot-swappable power supplies and not systems that have a fixed, non-redundant power supply installed.

omreport chassis pwrsupplies or omreport mainsystem pwrsupplies

Use the **omreport chassis pwrsupplies** or **omreport mainsystem pwrsupplies** command to view properties of the system's power supplies. Type:

```
omreport chassis pwrsupplies
```

or

```
omreport mainsystem pwrsupplies
```



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

For each power supply profile in the system, values display for the following fields:

- Status
- Location
- Type
- Rated Input Wattage (in Watts)
- Maximum Output Wattage
- Online Status
- Power Monitoring Capable

omreport chassis remoteaccess or omreport mainsystem remoteaccess

Use the **omreport chassis remoteaccess** or **omreport mainsystem remoteaccess** command to view general information on baseboard management controller or integrated Dell remote access controller (BMC/iDRAC) and remote access controller if DRAC is installed.

Type:

```
omreport chassis remoteaccess
```

or

```
omreport mainsystem remoteaccess
```



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

The output of the `omreport chassis remoteaccess` or `omreport mainsystem remoteaccess` command lists each of the valid parameters. Table 3-6 lists the available settings.

Table 3-6. Valid parameters of `omreport chassis remoteaccess` or `omreport mainsystem remoteaccess`

name=value pair	Description
<code>config=additional</code>	Reports the current state of IPv4 and IPv6 addresses on iDRAC.
<code>config=advsol</code>	Reports advanced BMC/iDRAC or remote access information on a serial over local area network (LAN) connection.
<code>config=nic</code>	Reports BMC/iDRAC or remote access information for the LAN.
<code>config=serial</code>	Reports serial port information for BMC or remote access.
<code>config=serialoverlan</code>	Reports BMC/iDRAC or remote access information on a serial over LAN connection.
<code>config=terminalmode</code>	Reports terminal mode settings for the serial port.
<code>config=user</code>	Reports information on BMC/iDRAC or remote access users.

omreport chassis slots or omreport mainsystem slots

Use the `omreport chassis slots` or `omreport mainsystem slots` command to view properties of the system's slots.

Type:

```
omreport chassis slots index=n
```

or

```
omreport mainsystem slots index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays properties for all of the slots in the system. If you specify the **index**, Server Administrator displays properties for a specific slot.



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

For each slot in the system, values display for the following fields: **Index**, **Slot ID**, **Adapter**, and **Data Bus Width**.

Index is the number of the slot in the system.

Slot ID is the silk screen name printed on the system's motherboard next to the slot. Alphanumeric text uniquely identifies each slot in the system.

Adapter refers to the name and/or type of the card that fits into the slot, for example, a storage array controller, SCSI adapter, iDRAC Enterprise, or HBA.

Data Bus Width is the width, in bits, of the information pathway between the components of a system. The range of the data bus width is from 16 to 64 bits.

omreport chassis temps or omreport mainsystem temps

Use the **omreport chassis temps** or **omreport mainsystem temps** command to view properties of the system's temperature probes. Type:

```
omreport chassis temps index=n
```

or

```
omreport mainsystem temps index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays a summary of status, readings, and thresholds set for any temperature probes that are present on the system. If you specify the **index**, Server Administrator displays a summary for a specific temperature probe.

omreport chassis volts or omreport mainsystem volts

Use the **omreport chassis volts** or **omreport mainsystem volts** command to view properties of the system's voltage probes. Type:

```
omreport chassis volts index=n
```

or

```
omreport mainsystem volts index=n
```

The **index** parameter is optional. If you do not specify the **index**, Server Administrator displays a summary of status, readings, and thresholds set for any voltage probes that are present on the system. If you specify the **index**, Server Administrator displays a summary for a specific voltage probe.

omreport system Commands or omreport servermodule Commands

Use the `omreport system` or `omreport servermodule` command to view logs, threshold values, cost of ownership information, and information about how shutdown actions and recovery actions are configured.

omreport system or omreport servermodule

Use the `omreport system` or `omreport servermodule` command to see a general status of the components of the system. When you specify a level 3 command, such as `omreport system shutdown` or `omreport servermodule shutdown`, you get detailed information for one system component rather than the high-level status obtained with `omreport system` or `omreport servermodule`.

Type:

```
omreport system
```

or

```
omreport servermodule
```

If the system has both a main system chassis or main system and at least one direct attached storage device, Server Administrator may display a summary that resembles the following example:

```
SEVERITY      : COMPONENT
Ok            : Main System Chassis
Critical     : Storage
```

Commands for Viewing Logs

Use the `omreport system` or `omreport servermodule` command to view logs: the alert log, the command log, and the hardware or ESM log.



NOTE: If the Alert log or Command log displays invalid XML data (such as when XML data generated for the selection is not well-formed), you must clear the log and resolve the issue. To clear the log, type: `omconfig system alertlog action=clear` or `omconfig system cmdlog action=clear`. If you need to retain the log information for future reference, save a copy of the log before clearing. See "Commands for Clearing Logs" on page 163 for more information about clearing logs.

To view the contents of the alert log, type:

```
omreport system alertlog
```

or

```
omreport servermodule alertlog
```

To view the contents of the command log, type:

```
omreport system cmdlog
```

or

```
omreport servermodule cmdlog
```

To view the contents of the ESM log, type:

```
omreport system esmlog
```

or

```
omreport servermodule esmlog
```

Overall Health Status of the ESM Log

When you run the `omreport system esmlog` or `omreport servermodule esmlog` command, the ESM log is displayed. The first line of the report reflects the overall health of the system hardware. For example, `Health: OK` means that less than 80 percent of the space allotted for the ESM log is occupied by messages. If 80 percent or more of the allotted space for the ESM log is occupied, the following caution is displayed:

```
Health: Non-Critical
```

If a caution is displayed, resolve all warning and critical severity conditions, and then clear the log.

omreport system alertaction or omreport servermodule alertaction

Use the `omreport system alertaction` or `omreport servermodule alertaction` command to view a summary of alert actions that have been configured for warning and failure events on the system components. Alert actions determine how Server Administrator responds when a component has a warning or failure event.

The `omreport system alertaction` or `omreport servermodule alertaction` command is useful for *viewing* which alert actions have been specified for components. To *set* an alert action for a component, use the `omconfig system alertaction` or `omconfig servermodule alertaction` command. For more information, see "omconfig: Managing Components Using the Instrumentation Service" on page 91.



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.



NOTE: Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

Components and Events Having View Alert Actions

View alert action properties for the following components and events, if the components or events are present on the system:

- Battery Warning
- Battery Failure
- Chassis Intrusion

- Current Probe Warning
- Current Probe Failure
- Fan Warning
- Fan Failure
- Memory Pre-failure
- Memory Failure
- System Power Probe Warning
- System Power Probe Detects a Failure
- System Peak Power
- Power Supply Warning
- Power Supply Failure
- Degraded Redundancy
- Lost Redundancy
- Temperature Warning
- Temperature Failure
- Voltage Warning
- Voltage Failure
- Processor Warning
- Processor Failure
- Hardware Log Warning
- Hardware Log Full
- Watchdog Asr
- Storage System Warning
- Storage System Failure
- Storage Controller Warning
- Storage Controller Failure
- Physical Disk Warning
- Physical Disk Failure
- Virtual Disk Warning
- Virtual Disk Failure

- Enclosure Warning
- Enclosure Failure
- Storage Controller Battery Warning
- Storage Controller Battery Failure
- Removable Flash Media Present
- Removable Flash Media Removed
- Removable Flash Media Failure



NOTE: Storage Controller Battery Warning and Storage Controller Battery Failure events are not available on Blade systems.



NOTE: System Power Probe Warning is not applicable to Blade systems.

omreport system assetinfo or omreport servermodule assetinfo

Use the `omreport system assetinfo` or `omreport servermodule assetinfo` command to see cost of ownership data for the system, such as acquisition, depreciation, and warranty information. To *set* any of these fields, use the `omconfig system assetinfo` or `omconfig servermodule assetinfo` command. For more information, see "omconfig system or servermodule assetinfo: Editing Cost of Ownership Values" on page 177.

omreport system events or omreport servermodule events

Use the `omreport system events` or `omreport servermodule events` command to view the currently enabled or disabled SNMP traps. This command displays a summary of each component in the system for which events are generated. For each component, the report shows which severities are set to report and which severities are set not to report. Type:

```
omreport system events
```

or

```
omreport servermodule events
```

The following is an example output for a few components:

```
Current SNMP Trap Configuration
-----
System
-----
Settings
Enable: Informational, Warning and Critical
Disable: None
-----
Power Supplies
-----
Settings
Enable: Informational, Warning and Critical
Disable: None
-----
Fans
-----
Settings
Enable: Critical
Disable: Informational, Warning, and Critical
-----
Removable Flash Media
-----
Settings
Enable: Informational, Warning and Critical
Disable: None
```

The full report lists the settings for all components in the system for which events are generated.

To view the status for components of a specific type, use the **omreport system events type=<component name>** or **omreport servermodule event type=<component name>** command. This command displays a summary of each component in the system for which events are generated. Table 3-7 lists the events displayed for various component types.



NOTE: Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

Table 3-7. System Events by Component Type

name=value pair	Description
type=accords	Reports events for AC power cords
type=battery	Reports events for batteries
type=fanenclosures	Reports events for fan enclosures
type=fans	Reports events for fans
type=intrusion	Reports events for chassis intrusion
type=log	Reports events for logs
type=memory	Reports events for memory
type=powersupplies	Reports events for power supplies
type=redundancy	Reports events for redundancy
type=systempower	Reports events for system power
type=temps	Reports events for temperatures
type=removableflashmedia	Reports events for removable flash media
type=volts	Reports events for voltages

Example Command for an Event Type

Type:

```
omreport system events type=fans  
or  
omreport servermodule events type=fans
```

The following is an example output:

```
Current SNMP Trap Configuration  
-----  
System  
-----  
Settings  
Enable: Informational, Warning, and Critical  
Disable: None
```

```

-----
Fans Group
-----

Settings
Enable: Informational, Warning, and Critical
Disable: None

-----
Individual Objects
-----
System Board Fan1 RPM Settings
Index:0
Enable: Informational, Warning, and Critical
Disable: None

System Board Fan2 RPM Settings
Index:1
Enable: Informational, Warning, and Critical
Disable: None

```

omreport system operatingsystem or omreport servermodule operatingsystem

Use the **omreport system operatingsystem** or **omreport servermodule operatingsystem** command to display information about the operating system.

omreport system pedestinations or omreport servermodule pedestinations

Use the **omreport system pedestinations** or **omreport servermodule pedestinations** command to view destinations where alerts are sent for platform events. Depending on the number of destinations displayed, configure a separate IP address for each destination address.


Type:

```
omreport system pedestinations
```

or

```
omreport servermodule pedestinations
```

The output of the **omreport system pedestinations** or **omreport servermodule pedestinations** command lists each of the valid parameters.

 **NOTE:** To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.


 **NOTE:** The actual number of destinations you can configure on the system may differ. Table 3-8 lists the available settings.

Table 3-8. Settings for the omreport system pedestinations or omreport servermodule pedestinations

Output	Attributes	Description
Destination List		
	Destination Number: Destination 1	destination 1: Displays the first destination. Example: 101.102.103.104: IPv4 address of the first destination.
	Destination Number: Destination 2	destination 2: Displays the second destination. Example: 110.120.130.140: IPv4 address of the second destination.
	Destination Number: Destination 3	destination 3: Displays the third destination. Example: 201:202:203:204: IPv4 address of the third destination.

Table 3-8. Settings for the omreport system pedestinations or omreport servermodule pedestinations (continued)

Output	Attributes	Description
	Destination Number: Destination 4	destination 4: Displays the fourth destination. Example: 210.211.212.213: IPv4 address of the fourth destination.
	Destination Number: Destination 5	destination 5: Displays the fifth destination. Example: 2001:0db8:85a3:0000:0000:8a2e:0370:7334: IPv6 address of the fifth destination.
	Destination Number: Destination 6	destination 6: Displays the sixth destination. Example: 2001:0db8:85a3:0000:0000:8a2e:0370:7334: IPv6 address of the sixth destination.
	Destination Number: Destination 7	destination 7: Displays the seventh destination. Example: 210.211.212.213: IPv4 address of the seventh destination.
	Destination Number: Destination 8	destination 8: Displays the eighth destination. 210.211.212.213: IPv4 address of the eighth destination.
Destination Configuration Settings	attribute= communitystring	communitystring: Displays the text string that acts as a password and is used to authenticate SNMP messages sent between the BMC and the destination management station.

omreport system platformevents or omreport servermodule platformevents

Use the `omreport system platformevents` or `omreport servermodule platformevents` command to view how the system responds for each listed platform event.



NOTE: To maintain consistency across the commands, the output format of this command has changed. Change the user scripts as applicable.

omreport system recovery or omreport servermodule recovery

Use the `omreport system recovery` or `omreport servermodule recovery` command to see whether there is an action configured for a hung operating system. Also view the number of seconds that must elapse before an operating system is considered hung.

omreport system shutdown or omreport servermodule shutdown

Use the `omreport system shutdown` or `omreport servermodule shutdown` command to view any pending shutdown actions for the system. If properties for shutdown are configured, executing this command displays these properties.



NOTE: Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

omreport system summary or omreport servermodule summary

Use the `omreport system summary` or `omreport servermodule summary` command to view a comprehensive summary of software and hardware components currently installed on the system.

Type:

```
omreport system summary
```

or

```
omreport servermodule summary
```



NOTE: If the vFlash or SD card size is less than 1 GB, the size is displayed in MB.



NOTE: If iDRAC is installed, Server Administrator displays the LCC version. If BMC is installed, Server Administrator displays the USC version.

The output that is displayed in the CLI window depends on the systems management software, operating system, and hardware components and options installed on the system. The following *partial* command results are unique and may not resemble the hardware and software configuration of the system:

System Summary

Software Profile

Systems Management

```
Name           : Dell OpenManage Server
                  Administrator
Version        : x.x.x
Description    : Systems Management Software
Contains      : Common Storage Module 4.x.x
                  Data Engine 7.x.x
                  Hardware Application Programming
                  Interface 7.x.x
                  Instrumentation Service 7.x.x
                  Instrumentation Service
                  Integration Layer 7.0.0
                  OpenManage Inventory Collector
                  7.x.x
                  Remote Access Controller Data
                  Populator 7.x.x
                  Remote Access Controller Managed
                  Node 7.x.x
                  Secure Port Server 7.x.x
                  Server Administrator Common
                  Framework 7.x.x
```

```
: Server Administrator Core files
  7.x.x
: Storage Management 4.x.x
: Sun Java Runtime Environment
  1.x.x
```

Operating System

```
Name           : Microsoft Windows Server 2008
                R2, Enterprise x64 Edition
Version        : Version 6.1 <Build 7600> <x64>
                Server Full Installation
System Time    : Fri May 20 18:02:52 2XXX
System Bootup Time : Wed May 18 18:37:58 2XXX
```

System

System

```
Host Name      : WIN-27C02UQFV6L
System Location : Please set the value
Life Cycle     : [N/A]
Controller
```

Main System

Chassis

Chassis
Information

```
Chassis Model   : PowerEdge R720
Chassis Service : 7654321
Tag
```

Express Service Code : 15608862073

Chassis Lock : Present

Chassis Asset Tag : c

Remote Access Information

Remote Access Device : iDRAC7 Express

vFlash Media : Absent

Processor 1

Processor Brand : Genuine Intel (R) CPU @ 1.60GHz

Processor Version : Model 45 Stepping 2

Voltage : 1200 W

Memory

Total Installed Capacity : 2048 MB

Memory Available to the OS : 2048 MB

Total Maximum Capacity : 786432 MB

Memory Array Count : 1

Memory Array 1

Location : System Board or Motherboard

Use : System Memory

Installed Capacity : 2048 MB

Maximum Capacity : 786432 MB

Slots Available : 24

Slots Used : 1

Slot PCI1

Adapter : [Not Occupied]

Type : PCI E Gen 3 X16

Data Bus Width : 8x or x8

Speed : [Not obtained, see card documentation]

Slot Length : Long

Voltage Supply : 3.3 Volts

Slot PCI2

Adapter : [Not Occupied]

Type : PCI E Gen 3 X16

Data Bus Width : 8x or x8

Speed : [Not obtained, see card documentation]

Slot Length : Long

Voltage Supply : 3.3 Volts

BIOS Information

Manufacturer : Dell Inc.

Version : 0.3.5

Release Date : 05/16/2011

Firmware
Information

Name : iDRAC7
Version : 1.00

Network Data

Network Interface
0

IP Address : 10.94.22.111
Subnet Mask : 255.255.254.0
Default Gateway : 10.94.22.1
MAC Address : 14-FE-B5-FF-AF-D0

Network Interface
1

IP Address : [No Value]
MAC Address : 14-FE-B5-FF-AF-D1

Network Interface
2

IP Address : [No Value]
MAC Address : 14-FE-B5-FF-AF-D2

Storage Enclosure

Storage Enclosure

Name : Backplane

The system summary hardware information includes data values for installed components of the following types present in the system:

System Attributes

- Host Name
- System Location
- Life Cycle Controller

Main System Chassis or Main System

Chassis

- Chassis Model
- Chassis Service Tag
- Express Service Code
- Chassis Lock
- Chassis Asset Tag

Remote Access Information

- Remote Access Device
- vFlash Media
- vFlash Media Size

Processor

The following are listed for each processor in the system:

- Processor Brand
- Processor Family
- Processor Version

- Current Speed
- Maximum Speed
- External Clock Speed
- Voltage

Memory

- Total Installed Capacity
- Memory Available to the Operating System
- Total Maximum Capacity
- Memory Array Count

Memory Array

The following details are listed for each memory board or module in the system (for example, the system board or the memory module in a given slot number):

- Location
- Use
- Installed Capacity
- Maximum Capacity
- Slots Available
- Slots Used
- ECC Type

BIOS

- Manufacturer
- BIOS Version
- Release Date

Firmware

- Name
- Version

Network Data

The following details are listed for each NIC and Team interface, if Team interface is configured in the system:

- IP Address
- Subnet Mask
- Default Gateway
- MAC Address

Storage Enclosures

The following details are listed for each storage enclosure attached to the system:

- Name
- Service Tag

omreport system thrmshutdown or omreport servermodule thrmshutdown

Use the **omreport system thrmshutdown** or **omreport servermodule thrmshutdown** command to view the properties configured for a thermal shutdown action.

The three properties that display for thermal shutdown are **disabled**, **warning**, or **failure**. If the CLI displays the following message, the thermal shutdown feature has been disabled:

```
Thermal protect shutdown severity: disabled
```

If the system is configured to shutdown when a temperature probe detects a warning or failure event, one of the following messages is displayed:

```
Thermal protect shutdown severity: warning  
Thermal protect shutdown severity: failure
```

omreport system version or omreport servermodule version

Use the **omreport system version** or **omreport servermodule version** command to list the version numbers of the BIOS, firmware, systems management software, and operating system installed on the system.

Example Command Output

Type:

```
omreport system version
```

or

```
omreport servermodule version
```



NOTE: If iDRAC is installed, Server Administrator displays the LCC version. If BMC is installed, Server Administrator displays the USC version.

The output that is displayed in the CLI window depends on the version of the BIOS, RAID controllers, and firmware installed on the system. The following *partial* command results are unique and may not resemble the results for the configuration of the system:

```
Version Report
```

```
-----
```

```
Main System Chassis
```

```
-----
```

```
Name       : BIOS  
Version    : 0.3.5
```

```
Name       : iDRAC7  
Version    : 1.00
```

```
-----
```

```
Software
```

```
-----
```

```
Name       : Microsoft Windows Server 2008 R2,  
           Enterprise x64 edition
```

```
Version    : Version 6.1 (Build 7600) (x64)  
           Server Full Installation
```

```
Name       : Dell Server Administrator
```

```
Version    : 7.x.x
```

Storage Controller Firmware

Name: PERC H310 Mini

Version: 20.10.1-0025

omreport preferences Commands

Use the `omreport preferences` command to view the URL information of the Server Administrator Web server.

Table 3-9 lists the available attributes.

Table 3-9. Attributes of omreport preferences webserver

name=value pair	Description
attribute=geturl	Reports the URL information of the Web server.
attribute=getsignalgorithm	Reports the current key sign algorithm.

omconfig: Managing Components Using the Instrumentation Service

The **omconfig** command allows you to provide values that define warning events, configure alert actions, clear logs, and configure system shutdown, as well as perform other systems management tasks.

Examples of **omconfig** capabilities include:

- Administrator privilege to clear command, alert, and hardware logs
- Administrator privilege to configure and execute system shutdown
- Power user and administrator privilege to specify values for warning events on fans, voltage probes, and temperature probes
- Power user and administrator privilege to set alert actions in case of a warning or failure event from intrusion, fans, voltage probes, and temperature probes

For information on using the **omconfig** command to view and manage cost of ownership information (**assetinfo**), see "omconfig system or servermodule assetinfo: Editing Cost of Ownership Values" on page 177.

Often, you must use the **omreport** command to get the information required to execute an **omconfig** command. For example, to edit the minimum temperature for a warning event on a temperature probe, you must know the index of the probe. Use the **omreport chassis temps** or **omreport mainsystem temp** command to display a list of probes and their indexes. For more information on using the **omreport** command, see "omreport: Viewing System Status Using the Instrumentation Service" on page 31.

Table 4-1. System Availability for the omconfig Command

Command Level 1	Command Level 2	Applicable to
omconfig	servermodule	Blade systems
	mainssystem	Blade systems
	system	Rack and Tower systems
	chassis	Rack and Tower systems


Conventions for Parameter Tables

When listing the parameters that a command can take, the parameters are listed in alphabetical order instead of the order in which they appear in the command line interface (CLI).

The symbol |, often called *pipe*, is the logical *exclusive or* operator. For example, enable | disable means you can enable or disable the component or feature, but you cannot simultaneously enable and disable the component or feature.

omconfig Command Summary

Table 4-2 is a high-level summary of the **omconfig** command. The columns titled *Command level 2* and *Command level 3* list the major arguments that are used with **omconfig**. *User privilege required* refers to the type of privilege you need to run the command, where U=User, P=Power User, and A=Administrator. *Use* is a very general statement about the actions that are performed using **omconfig**. More information about the syntax and use of the **omconfig** command appear later in this section.

 **NOTE:** Although the table lists all possible **omconfig** commands, the commands available on the system depend on the system configuration. If you try to get help or execute a command for a component not installed on the system, Server Administrator displays a message that the component or feature is not found on the system.


 **NOTE:** When CSIOR (Collect System Inventory on Restart) is disabled, **omconfig** does not allow to configure the BIOS settings.

Table 4-2. omconfig Command Level 1, Level 2, and Level 3

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
omconfig				
	about		U, P, A	Shows version number and properties for the Server Administrator program.
		details=true	U, P, A	Displays information for all of the Server Administrator programs that are installed.
	preferences			
		cdvformat	A	Specifies the delimiter for separating data fields reported in custom delimited format (cdv).
		dirservice	A	Configures the Microsoft Active Directory service.
		snmp	A	Sets the SNMP root password. Configures SNMP Set Operations.
		useraccess	A	Determines whether users below the administrator level are allowed to use Server Administrator or not.
		webservice	A	Allows the administrator to set the encryption levels of the Web server and configure the URL launch point in the Server Administrator Web server environment.
	system or servermodule			

Table 4-2. omconfig Command Level 1, Level 2, and Level 3 (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		alertaction	P, A	Determines in advance the actions taken for warning or failure events on intrusion, fans, temperatures, voltages, power supplies, memory, and redundancy.
		alertlog	P, A	Allows the administrator to clear the alert log.
		assetinfo	P, A	Enters and edits cost of ownership information for the system, including values for depreciation, lease, maintenance, service, and support.
		cmdlog	P, A	Allows the administrator to clear the command log.
		esmlog	P, A	Allows the administrator to clear the ESM log.
		events	P, A	Enables and disables SNMP traps.
		pedestinations	P, A	Sets IP addresses for alert destinations.
		platformevents	A	Determines the shutdown action, if any, taken for a specific platform event. Also, enables and disables platform events filter alert generation.
		recovery	P, A	Determines in advance how the system responds to a hung operating system.

Table 4-2. omconfig Command Level 1, Level 2, and Level 3 (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		shutdown	A	Allows the administrator to select from several options when shutting down the system.
		thrmshutdown	A	Sets the severity level at which a thermal event triggers a system shutdown.
		webservice	A	Starts or stops the Web server.
	chassis or mainsystem	biossetup	A	Configures the behavior of specific system components controlled by the BIOS.
		fans	P, A	Configures fan probe warning thresholds by default or by value. NOTE: You cannot change threshold values on embedded server management (ESM3) and Dell PowerEdge x8xx systems.
		frontpanel	A	Configures the Power button, Non-Masking Interrupt (NMI) button, encryption access, and LCD display of the system.
		info	P, A	Allows you to set an initial value, or to edit the value of the asset tag or chassis name.

Table 4-2. omconfig Command Level 1, Level 2, and Level 3 (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		leds	P, A	Specifies when to flash a chassis fault LED or chassis identification LED, and allows you to clear the LED for the system's hard drive.
		memorymode	A	Enables or disables the spare bank, mirroring, raid, and Double Device Data Correction (DDDC) memory modes, and also specify which mode to use.
		pwrmanagement	P, A	Allows you to choose between maximum performance with minimal power and optimized performance of the system.
		pwrmonitoring	P, A	Configures power consumption information and thresholds.
		remoteaccess	A	Configures remote access information.
		temps	P, A	Sets warning threshold values to default or a specific value. NOTE: You cannot change threshold values on ESM3 and PowerEdge x8xx systems.

Table 4-2. omconfig Command Level 1, Level 2, and Level 3 (continued)

Command Level 1	Command Level 2	Command Level 3	User Privilege Required	Use
		volts	P, A	Sets warning threshold values default or a specific value. NOTE: You cannot change threshold values on ESM3 and PowerEdge x8xx systems.
	storage			See "Using the Storage Management Service" on page 197.

Help With the omconfig Command

Use the `omconfig -?` command to get a list of the available commands for `omconfig`.

Use `omconfig <command level 2> -?` to get help on the `about`, `chassis`, `preferences`, and `system`'s level 2 commands. The following information on `omconfig system -?` applies equally to getting help for the `omconfig chassis` command.

Use the `omconfig system -?` command to get a list of the available commands for `omconfig system`.

Use the `omconfig preferences -?` command to get a list of the available commands for `omconfig preferences`, such as `cdvformat`, which is the custom delimiter format (cdv). Type the following command to display the list of delimiter values for the `cdv`:

```
omconfig preferences cdvformat -?
```

Use a command of the form **omconfig system** *<command level 3>* `-?` to get a list of the parameters you must use to execute a particular **omconfig system** command. For example, the following commands produce a list of valid parameters for **omconfig system alertaction** and **omconfig system shutdown**:

```
omconfig system alertaction -?  
omconfig system shutdown -?
```

In case of the **omconfig system alertaction** command, you can use various options to prevent all of the CLI help from scrolling, before you can read it.

To scroll the command output one screen at a time, type:

```
omconfig system alertaction -? | more
```

where `| more` allows you to press the spacebar to see the next screen of the CLI help output.

To create a file that contains all the help for the **omconfig system alertaction -?** command, type:

```
omconfig system alertaction -? -outa alert.txt
```

where `-outa` directs the output of the command to a file called `alert.txt`.

To read the help for the **alertaction** command on Microsoft Windows, Red Hat Enterprise Linux, or SUSE Linux Enterprise Server operating systems, type:

```
more alert.txt
```

omconfig about

Use the **omconfig about** command to learn the product name and version number of the systems management application installed on the system. The following is an example output of the **omconfig about** command:

```
Product      : Dell OpenManage Server Administrator  
name  
Version      : 7.x.x  
Copyright    : Copyright (C) Dell Inc. xxxx-xxxx. All  
rights reserved.  
Company      : Dell Inc.
```

For more details about the environment for Server Administrator, type:

```
omconfig about details=true
```

Server Administrator includes a number of services, each having a version number of its own. The **Contains** field reports version numbers for the services and provides other useful details. The following is an example output of the **omconfig about** command. The output may change depending on the configuration of the system and the version of Server Administrator.

```
Contains: Broadcom SNMP Agent 10.xx.xx
          Common Storage Module 3.x.x
          Data Engine 5.x.x
          Hardware Application Programming Interface
          5.x.x
          Instrumentation Service 6.x.x
          Instrumentation Service Integration Layer
          1.x.x
          Intel SNMP Agent 1.xx.x
          OpenManage Inventory Collector 6.x.x
          OpenManage Tools 6.x.x
          Remote Access Controller 4 Data Populator
          4.x.x
          Remote Access Controller 4 Managed Node
          4.6.3
          Secure Port Server 1.x.x
          Server Administrator Framework 6.x.x
          Agent for Remote Access 1.x.x
          Storage Management 3.x.x
          Sun Java Runtime Environment 1.x.xx
```

omconfig chassis or omconfig mainsystem

Use the `omconfig chassis` or `omconfig mainsystem` command to:


- Set to default or assign specific values for fan, voltage, and temperature probes
- Configure BIOS behavior during system start up
- Clear memory error counts
- Enable or disable power button control features if system configuration permits

Use the `omconfig chassis -?` or `omconfig mainsystem -?` command to view a list of all `omconfig chassis` or `omconfig mainsystem` commands.


omconfig chassis biossetup or omconfig mainsystem biossetup

Use the `omconfig chassis biossetup` or `omconfig mainsystem biossetup` command to configure system BIOS settings that are normally available only in the BIOS setup boot time settings of the system.

 **CAUTION:** Changing certain BIOS setup options may disable the system or require you to reinstall the operating system.

 **NOTE:** Reboot the system for the BIOS setup options to take effect.

 **NOTE:** Not all BIOS setup options are available on every system.

 **NOTE:** Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

 **NOTE:** When CSIOR (Collect System Inventory on Restart) is disabled, you cannot configure the BIOS settings using `omconfig` command.

Table 4-3 lists the name=value pairs you can use with this command on systems prior to PowerEdge *yx2x* systems.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= acpwrrcovery	setting=off last on delay=random immediate timedelay time <value>	off: System is turned off. last: System returns to the previous state. on: System is turned on. random: System is turned on with random delay. immediate: System returns to previous state immediately. timedelay <value>: System is turned on based on user specified time delay.
attribute=bezel	setting=enabled disabled	enabled: Enables the bezel removal intrusion check during system boot. disabled: Disables the bezel removal intrusion check during system boot.
attribute= bootsequence	setting=diskettefirst hdonly devicelist cdromfirst opticaldrive	Instructs the BIOS which device is used to boot the system, and the order in which the boot routine checks each device. NOTE: On Linux systems, user or user groups upgraded to administrator or administrator groups cannot configure this BIOS setup setting.
attribute= bootmode	setting=uefi bios	uefi: Enables the system to boot to operating systems that support Unified Extensible Firmware Interface (UEFI). bios: Enables the system to boot to operating systems that do not support UEFI.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= bootorder	sequence=aliasname1, aliasname2,..... aliasnameN	Configures the boot sequence according to the set aliasnames. To view the set alias names, run the command <code>omreport chassis biossetup attribute=bootorder</code> . NOTE: On Linux systems, user or user groups upgraded to administrator or administrator groups cannot configure this BIOS setup setting.
attribute= hddorder	sequence=aliasname1, aliasname2,..... aliasnameN	Configures the BIOS setup hard disk sequence according to the set aliasnames. Changes takes effect after rebooting the system. To view the set alias names, run the command <code>omreport chassis biossetup attribute=bootorder</code> . NOTE: On Linux systems, user or user groups upgraded to administrator or administrator groups cannot configure this BIOS setup setting.
attribute=cstates	setting=enabled disabled	enabled: Enables the processor to go into a deep sleep state when the system is not utilized. disabled: Disables the processor to go into a deep sleep state when the system is not utilized.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *px2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= conredirect	setting=enabled disabled	enabled: Redirects the BIOS screen output over serial port 1. Keyboard and text output are redirected over serial port 2. disabled: Turns off the BIOS console redirection.
attribute=crab	setting=enabled disabled	enabled: Enables BIOS console redirection after system reboot. disabled: Disables BIOS console redirection. NOTE: The attribute crab is valid only on Dell PowerEdge <i>x9xx</i> systems.
attribute=cpucle	setting=enabled disabled	enabled: Enables processor C1-E after system reboot. disabled: Disables processor C1-E after system reboot.
attribute=cpuht	setting=enabled disabled	enabled: Enables logical processor hyperthreading. disabled: Disables logical processor hyperthreading.
attribute=cpuvt	setting=enabled disabled	enabled: Enables virtualization. disabled: Disables virtualization.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= cpuxdsupport	setting=enabled disabled	enabled: Enables Execute Disable (XD) support on the system. disabled: Disables XD support on the system.
attribute=cpucore	setting=1 2 4 6 8 10 12 all	1: Enables one core per processor. 2: Enables two cores per processor. 4: Enables four cores per processor. 6: Enables six cores per processor. 8: Enables eight cores per processor. 10: Enables ten cores per processor. 12: Enables twelve cores per processor. all: Enables the maximum cores per processor.
attribute=dbs	setting=enable disable	enable: Enables Demand Based Switching (DBS) on the system. disable: Disables DBS on the system.
attribute=diskette	setting=off auto writeprotect	off: Disables the diskette drive. auto: Auto-enables the diskette drive. writeprotect: The diskette drive is available in read-only format only. Make the diskette drive read-only.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *px2x* Systems
(*continued*)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=dualnic	setting=off on pxeboth nic1pxe nic2pxe isciboth nic1iscsi nic2iscsi nic1pxenic2iscsi nic1iscinic2pxe onpxeboth onpxenone onpxenic1 onpxenic2	<p>off: Disables the Network Interface Controllers (NICs).</p> <p>on: Enables the network interface (PXE or iSCSI) is not enabled on either of the NICs).</p> <p>pxeboth: Enables PXE on both NICs.</p> <p>nic1pxe: Enables PXE on the first NIC and none (no PXE or iSCSI) on the second NIC.</p> <p>nic2pxe: Enables none (no PXE or iSCSI) on first NIC and PXE on the second NIC.</p> <p>isciboth: Enables iSCSI on both the NICs.</p> <p>nic1iscsi: Enables iSCSI on the first NIC and none (no PXE or iSCSI) on the second NIC.</p> <p>nic2iscsi: Enables none (no PXE or iSCSI) on the first NIC and iSCSI on the second NIC.</p> <p>nic1pxenic2iscsi: Enables PXE on the first NIC and iSCSI on second NIC.</p> <p>nic1iscinic2pxe: Enables iSCSI on the first NIC and PXE on second NIC.</p> <p>NOTE: The following options are deprecated:</p> <p>onpxeboth: Enables PXE on both the NICs.</p> <p>onpxenone: PXE is not enabled on either of the NICs.</p> <p>onpxenic1: Enables PXE on NIC 1.</p> <p>onpxenic2: Enables PXE on NIC 2.</p>

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(*continued*)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= embhypvisor	setting=enabled disabled	enabled: Enables the embedded hypervisor. disabled: Disables the embedded hypervisor.
attribute= embvideoctrl	setting=enabled disabled	enabled: Enables the embedded video controller as the primary video device. disabled: Disables the embedded video controller as the primary video device.
attribute= esataport	setting=off auto	off: Sets the embedded SATA port value to off . auto: Sets the embedded SATA port value to auto .
attribute= extserial	setting=com1 com2 rad	com1: Maps the external serial connector to COM 1. com2: Maps the external serial connector to COM 2. rad: Maps the external serial connector to the remote access device.
attribute=fbr	setting=9600 19200 57600 115200	9600: Sets the console redirection failsafe baud rate to 9600 bits per second. 19200: Sets the console redirection failsafe baud rate to 19200 bits per second. 57600: Sets the console redirection failsafe baud rate to 57600 bits per second. 115200: Sets the console redirection failsafe baud rate to 115200 bits per second.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *px2x* Systems
(*continued*)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=htassist	setting=enabled disabled	<p>enabled: Enables the probe filter chipset option.</p> <p>disabled: Disables the probe filter chipset option.</p> <p>NOTE: Certain applications do not function fully if you enable or disable this option.</p>
attribute=ide	setting=on off force=true	<p>on: Enables IDE.</p> <p>off: Disables IDE.</p> <p>force=true: Verification of setting change.</p>
attribute=ideprdrv	setting=off auto	<p>off: Disables the device.</p> <p>auto: Detects and enables the device automatically.</p>
attribute=intrusion	setting=enabled disabled	<p>enabled: Enables the intrusion check during system boot. If the system also has bezel intrusion checking, then the intrusion option checks for removal of the bezel of the system.</p> <p>disabled: Disables the intrusion check during system boot.</p>
attribute=intusb[1..2]	setting=enabled disabled	<p>enabled: Enables the internal USB port.</p> <p>disabled: Disables the internal USB port.</p> <p>NOTE: The following option is deprecated: attribute=intusb</p>
attribute=mouse	setting=on off	<p>on: Enables the mouse.</p> <p>off: Disables the mouse.</p>

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=nic1	setting=enabled enabledwithpxe disabled enabledonly enablednonepxe enabledwithiscsi	<p>enabled: Enables the first NIC during system boot.</p> <p>enabledwithpxe: Enables the first NIC during system boot (with PXE on if the system has PXE).</p> <p>disabled: Disables the first NIC during system boot.</p> <p>enabledonly: Enables the first NIC during system boot (with PXE off if the system has PXE).</p> <p>enablednonepxe: Enables the first NIC during system boot (with PXE off if the system has PXE).</p> <p>enabledwithiscsi: Enables the first NIC during system boot (with iSCSI on if the system has iSCSI).</p>
attribute=nic2	setting=enabled enabledwithpxe disabled enabledonly enablednonepxe enabledwithiscsi	<p>enabled: Enables the second NIC during system boot.</p> <p>enabledwithpxe: Enables the second NIC during system boot (with PXE on if the system has PXE).</p> <p>disabled: Disables the second NIC during system boot.</p> <p>enabledonly: Enables the second NIC during system boot (with PXE off if the system has PXE).</p> <p>enablednonepxe: Enables the second NIC during system boot (with PXE off if the system has PXE).</p> <p>enabledwithiscsi: Enables the second NIC during system boot (with iSCSI on if the system has iSCSI).</p>

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *px2x* Systems
(*continued*)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=nic3	setting=enabled enabledwithpxe disabled enabledonly enablednonepxe enabledwithiscsi	<p>enabled: Enables the third NIC during system boot.</p> <p>enabledwithpxe: Enables the third NIC during system boot (with PXE on if the system has PXE).</p> <p>disabled: Disables the third NIC during system boot.</p> <p>enabledonly: Enables the third NIC during system boot (with PXE off if the system has PXE).</p> <p>enablednonepxe: Enables the third NIC during system boot (with PXE off if the system has PXE).</p> <p>enabledwithiscsi: Enables the third NIC during system boot (with iSCSI on if the system has iSCSI).</p>
attribute=nic4	setting=enabled enabledwithpxe disabled enabledonly enablednonepxe enabledwithiscsi	<p>enabled: Enables the fourth NIC during system boot.</p> <p>enabledwithpxe: Enables the fourth NIC during system boot (with PXE on if the system has PXE).</p> <p>disabled: Disables the fourth NIC during system boot.</p> <p>enabledonly: Enables the fourth NIC during system boot (with PXE off if the system has PXE).</p> <p>enablednonepxe: Enables the fourth NIC during system boot (with PXE off if the system has PXE).</p> <p>enabledwithiscsi: Enables the fourth NIC during system boot (with iSCSI on if the system has iSCSI).</p>

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= numlock	setting=on off	on: Uses the keypad as number keys. off: Uses the keypad as arrow keys.
attribute=numa	setting=enabled disabled	enabled: Enables Node Interleaving. disabled: Disables Node Interleaving.
attribute= ppaddress	setting=off lpt1 lpt2 lpt3	off: Disables the parallel port address. lpt1: Locates the device on LPT1. lpt2: Locates the device on LPT2. lpt3: Locates the device on LPT3.
attribute= ppmode	setting=at ps2 ecp epp	at: Sets the parallel port mode to AT. ps2: Sets the parallel port mode to PS/2. ecp: Sets the parallel port mode to ECP (extended capabilities port). epp: Sets the parallel port mode to EPP (enhanced parallel port).
attribute= primaryscsi	setting=on off force=true	CAUTION: If you modify the setting for <i>primary scsi</i>, <i>romb</i>, <i>romba</i>, or <i>rombb</i>, the system becomes inoperable until you reinstall the operating system. on: Enables the primary SCSI. off: Disables the primary SCSI. force=true: Verification of setting change.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *px2x* Systems
(*continued*)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=romb	setting=raid off scsi force=true	<p>raid: Instructs the BIOS to detect RAID-on-motherboard as a RAID device.</p> <p>off: Disables RAID-on-motherboard during system boot.</p> <p>scsi: Instructs the BIOS to detect the RAID-on-motherboard device as a SCSI device.</p> <p>force=true: Verification of setting change.</p>
attribute=romba	setting=raid scsi force=true	<p>raid: Instructs the BIOS to detect RAID-on-motherboard channel A as a RAID device.</p> <p>scsi: Instructs the BIOS to detect the RAID-on-motherboard device as a SCSI device.</p> <p>force=true: Verification of setting change.</p>
attribute=rombb	setting=raid scsi force=true	<p>raid: Instructs the BIOS to detect RAID-on-motherboard channel B as a RAID device.</p> <p>scsi: Instructs the BIOS to detect the RAID-on-motherboard device as a SCSI device.</p> <p>force=true: Verification of setting change.</p>
attribute=sata	setting=off ata raid	<p>off: Disables the SATA controller.</p> <p>ata: Sets the onboard SATA controller to ATA mode.</p> <p>raid: Sets the onboard SATA controller to RAID mode.</p>

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=sataport (0...7) or (a...h)	setting=off auto	off: Disables the SATA port. auto: Automatically enable the SATA port.
attribute=secondaryscsi	setting=on off	on: Enables secondary SCSI. off: Disables secondary SCSI.
attribute=serialportaddr	setting=default alternate com1 com2	default: Maps serial device 1 to COM port 1 and serial device 2 to COM port 2. alternate: Maps serial device1 to COM port 2 and serial device 2 to COM port 1. com1: Sets serial port address to COM1. com2: Sets serial port address to COM2.
attribute=serialcom	setting=off on com1 com2 onwithconsole	off: Disables serial communication setting. on: Enables serial communication setting without console redirection. com1: Enables serial communication setting with console redirection through COM1. com2: Enables serial communication setting with console redirection through COM2. onwithconsole: Enables serial communication with console redirection through COM1 and COM2.

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *px2x* Systems
(*continued*)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute= serialport1	setting=off auto com1 com3 bmcserial bmcnic rac com1bmc	<p>off: Disables serial port 1.</p> <p>auto: Maps serial port 1 to a COM port.</p> <p>com1: Maps serial port 1 to COM port 1.</p> <p>com3: Maps serial port 1 to COM port 3.</p> <p>bmcserial: Maps serial port 1 to BMC Serial.</p> <p>bmcnic: Maps serial port 1 to the Baseboard Management Controller (BMC) NIC.</p> <p>rac: Maps serial port 1 to the Remote Access Controller (RAC.)</p> <p>com1bmc: Maps serial port 1 to COM port 1 bmc.</p> <p>NOTE: This command is applicable only on selected <i>x8xx</i> systems.</p>
attribute= serialport2	setting=off auto com2 com4	<p>off: Disables serial port 2.</p> <p>auto: Maps serial port 2 to a COM port.</p> <p>com2: Maps serial port 2 to COM port 2.</p> <p>com4: Maps serial port 2 to COM port 4.</p>
attribute=speaker	setting=on off	<p>on: Enables the speaker.</p> <p>off: Disables the speaker.</p>
attribute= cputurbomode	setting=enabled disabled	<p>CPU turbo mode can increase the CPU frequency when the system is operating below the thermal, power, or current limits.</p> <p>enabled: Enables CPU Turbo Mode.</p> <p>disabled: Disables CPU Turbo Mode.</p>

Table 4-3. BIOS Setup Settings on Systems Prior to PowerEdge *yx2x* Systems
(continued)

name=value pair 1 attribute=	name=value pair 2 setting=	Description
attribute=uausb	setting=on backonly off	<p>on: Enables the user-accessible USB port(s.)</p> <p>backonly: Enables only the user-accessible USB port(s) located at the back of the system.</p> <p>off: Disables the user-accessible USB port(s.)</p>
attribute=usb	setting=enabled disabled	<p>enabled: Enables the USB port(s.)</p> <p>disabled: Disables the USB port(s.)</p> <p>NOTE: Depending on the system's hardware you can configure either usb or usbb.</p>
attribute=usbb	setting=enabled enabledwithbios disabled	<p>enabled: Enables the USB port(s) during system boot, without BIOS support.</p> <p>enabledwithbios: Enables the USB port(s) during system boot, with BIOS support.</p> <p>disabled: Disables the USB port(s) during system boot.</p> <p>NOTE: Depending on the system's hardware you can configure either usb or usbb.</p>
attribute=cstates	setting=enabled disabled	<p>enabled: Enables the processor from going to a deep sleep state when the system is not utilized.</p> <p>disabled: Disables the processor from going into a deep sleep state when the system is not utilized.</p>

Table 4-4 displays the BIOS setup attributes supported on PowerEdge *yx2x* systems. On PowerEdge *yx2x* systems, the attributes are grouped. Based on the hardware configuration, the possible attributes may vary in a specific group. The `omconfig chassis biossetup` command does not display the read-only attributes.



NOTE: If you have configured the setup password, then, always set the same when you configure any BIOS settings.

Table 4-4. BIOS Setup Settings on PowerEdge *yx2x* Systems

Group	name=value pair 1 attribute=	name=value pair 2 setting=
BIOS Boot Settings	attribute=BootSeq	sequence=aliasname1, aliasname2,..... aliasnameN
	attribute=HddSeq	sequence=aliasname1, aliasname2,..... aliasnameN
Boot Settings	attribute=BootMode	setting=Bios Uefi
	attribute=BootSeqRetry	setting=Enabled Disabled
Embedded Server Management	attribute=FrontLcd	setting=None UserDefined ModelNum Advanced
	attribute=UserLcdStr	setting= <string>
Integrated Devices	attribute=EmbVideo	setting=Enabled Disabled
	attribute= IntegratedNetwork1	setting=Enabled DisabledOs
	attribute= IntegratedNetwork2	setting=Enabled DisabledOs
	attribute=IntegratedRaid	setting=Enabled Disabled
	attribute=IntegratedSas	setting=Enabled Disabled
	attribute=InternalSdCard	setting=On Off
	attribute=InternalSdCard Redundancy	setting=Mirror Disabled
	attribute=InternalUsb	setting=On Off
attribute=InternalUsb1	setting=On Off	

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
Integrated Devices (continued)	attribute=InternalUsb2	setting=On Off
	attribute=IoatEngine	setting=Enabled Disabled
	attribute= OsWatchdogTimer	setting=Enabled Disabled
	attribute= SriovGlobalEnable	setting=Enabled Disabled
	attribute=UsbPorts	setting=AllOn OnlyBackPortsOn AllOff
Memory Settings	attribute=MemOpMode	setting=OptimizerMode SpareMode MirrorMode AdvEccMode SpareWithAdvEccMode
	attribute=MemOpVoltage	setting=AutoVolt Volt15V NOTE: Volt15V represents 1.5 Volt.
	attribute=MemTest	setting=Enabled Disabled
	attribute=NodeInterleave	setting=Enabled Disabled
	attribute=SerialDbgOut	setting=Enabled Disabled
	attribute=SysMemSize	setting=<string>
	attribute=SysMemSpeed	setting=<string>
	attribute=SysMemType	setting=<string>
	attribute=SysMemVolt	setting=<string>
	attribute=VideoMem	setting=<string>
Miscellaneous Settings	attribute=AssetTag	setting=<string>
	attribute=Characterization	setting=Enabled Disabled
	attribute=ErrPrompt	setting=Enabled Disabled
	attribute=NumLock	setting=On Off
	attribute=ReportKbdErr	setting=Report NoReport

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
Miscellaneous Settings (continued)	attribute=SystemUefiShell	setting=Enabled Disabled
One-Time Boot	attribute=OneTimeBootMode	setting=Disabled OneTimeBootSeq OneTimeHddSeq OneTimeUefiBootSeq OneTimeCustomBootSeqStr OneTimeCustomHddSeqStr OneTimeCustomUefiBootSeqStr
	attribute=OneTimeBootSeqDev	sequence=aliasname1, aliasname2,..... aliasnameN
	attribute=OneTimeHddSeqDev	sequence=aliasname1, aliasname2,..... aliasnameN
	attribute=OneTimeUefiBootSeqDev	sequence=aliasname1, aliasname2,..... aliasnameN
Processor Settings	attribute=DataReuse	setting=Enabled Disabled
	attribute=DcuIpPrefetcher	setting=Enabled Disabled
	attribute=DcuStreamerPrefetcher	setting=Enabled Disabled
	attribute=LogicalProc	setting=Enabled Disabled
	attribute=Proc1Brand	setting= <string>
	attribute=Proc1Id	setting= <string>
	attribute=Proc1L2Cache	setting= <string>
	attribute=Proc1L3Cache	setting= <string>
	attribute=Proc1NumCores	setting= <integer>
	attribute=Proc2Brand	setting= <string>
	attribute=Proc2Id	setting= <string>
	attribute=Proc2L2Cache	setting= <string>
	attribute=Proc2L3Cache	setting= <string>

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
Processor Settings (continued)	attribute=Proc2NumCores	setting= <integer>
	attribute=Proc3Brand	setting= <string>
	attribute=Proc3Id	setting= <string>
	attribute=Proc3L2Cache	setting= <string>
	attribute=Proc3L3Cache	setting= <string>
	attribute=Proc3NumCores	setting= <integer>
	attribute=Proc4Brand	setting= <string>
	attribute=Proc4Id	setting= <string>
	attribute=Proc4L2Cache	setting= <string>
	attribute=Proc4L3Cache	setting= <string>
	attribute=Proc4NumCores	setting= <integer>
	attribute=Proc64bit	setting= <string>
	attribute= ProcAdjCacheLine	setting=Enabled Disabled
	attribute=ProcBusSpeed	setting= <string>
	attribute=ProcCores	setting=Single All Dual Quad 1 2 4 6 8 10 12 14 16
	attribute=ProcCoreSpeed	setting= <string>
	attribute= ProcExecuteDisable	setting=Enabled Disabled
	attribute= ProcHwPrefetcher	setting=Enabled Disabled
	attribute= ProcVirtualization	setting=Enabled Disabled
	attribute= QpiBandwidthPriority	setting=InputOutput Compute

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
Processor Settings (continued)	attribute=QpiSpeed	setting=MaxDataRate 8GTps 7GTps 6GTps
	attribute=RtidSetting	setting=Enabled Disabled
SATA Settings	attribute=EmbSata	setting=Off AtaMode RaidMode AhciMode
	attribute=eSataPort1	setting=Off Auto
	attribute=eSataPort1Capacity	setting=<string>
	attribute=eSataPort1DriveType	setting=<string>
	attribute=eSataPort1Model	setting=<string>
	attribute=SataPortA	setting=Off Auto
	attribute=SataPortACapacity	setting=<string>
	attribute=SataPortADriveType	setting=<string>
	attribute=SataPortAModel	setting=<string>
	attribute=SataPortB	setting=Off Auto
	attribute=SataPortBCapacity	setting=<string>
	attribute=SataPortBDriveType	setting=<string>
	attribute=SataPortBModel	setting=<string>
	attribute=SataPortC	setting=Off Auto
	attribute=SataPortCCapacity	setting=<string>
	attribute=SataPortCDriveType	setting=<string>
	attribute=SataPortCModel	setting=<string>

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
SATA Settings (continued)	attribute=SataPortD	setting=Off Auto
	attribute= SataPortDCapacity	setting= <string>
	attribute= SataPortDDriveType	setting= <string>
	attribute=SataPortDModel	setting= <string>
	attribute=SataPortE	setting=Off Auto
	attribute= SataPortECapacity	setting= <string>
	attribute= SataPortEDriveType	setting= <string>
	attribute=SataPortEModel	setting= <string>
	attribute=SataPortF	setting=Off Auto
	attribute= SataPortFCapacity	setting= <string>
	attribute= SataPortFDriveType	setting= <string>
	attribute=SataPortFModel	setting= <string>
	attribute=SataPortG	setting=Off Auto
	attribute= SataPortGCapacity	setting= <string>
	attribute= SataPortGDriveType	setting= <string>
	attribute=SataPortGModel	setting= <string>
	attribute=SataPortH	setting=Off Auto
	attribute= SataPortHCapacity	setting= <string>
	attribute= SataPortHDriveType	setting= <string>

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
SATA Settings (continued)	attribute=SataPortHModel	setting=<string>
Serial Communication	attribute=ConTermType	setting=Vt100Vt220 Ansi
	attribute= ExtSerialConnector	setting=Serial1 Serial2 RemoteAccDevice
	attribute=FailSafeBaud	setting=115200 57600 19200 9600
	attribute=RedirAfterBoot	setting=Enabled Disabled
	attribute=SerialComm	setting=OnNoConRedir OnConRedirCom1 OnConRedirCom2 Off
	attribute= SerialPortAddress	setting= Serial1Com1Serial2Com2 Serial1Com2Serial2Com1 Com1 Com2
Slot Disablement	attribute=Slot1	setting=Enabled Disabled BootDriverDisabled
	attribute=Slot2	setting=Enabled Disabled BootDriverDisabled
	attribute=Slot3	setting=Enabled Disabled BootDriverDisabled
	attribute=Slot4	setting=Enabled Disabled BootDriverDisabled
	attribute=Slot5	setting=Enabled Disabled BootDriverDisabled
	attribute=Slot6	setting=Enabled Disabled BootDriverDisabled
	attribute=Slot7	setting=Enabled Disabled BootDriverDisabled

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
System Information	attribute= SysMfrContactInfo	setting= <string>
	attribute= SystemBiosVersion	setting= <string>
	attribute= SystemManufacturer	setting= <string>
	attribute= SystemModelName	setting= <string>
	attribute= SystemServiceTag	setting= <string>
System Profile Settings	attribute=MemFrequency	setting=MaxPerf 1600MHz 1333MHz 1067MHz 800MHz MaxReliability
	attribute=MemPatrolScrub	setting=Standard Extended Disabled
	attribute= MemRefreshRate	setting=1x 2x
	attribute=MemVolt	setting=AutoVolt Volt15V Volt135V NOTE: Volt15V represents 1.5 Volt and Volt135V represents 1.35 Volt
	attribute=ProcC1E	setting=Enabled Disabled
	attribute=ProcCStates	setting=Enabled Disabled
	attribute=ProcPwrPerf	setting=MaxPerf MinPwr SysDbpm OsDbpm
	attribute=ProcTurboMode	setting=Enabled Disabled
	attribute=SysProfile	setting=PerfPerWattOptimizedOs PerfPerWattOptimizedDapc PerfOptimized Custom DenseCfgOptimized
	System Security	attribute=AcPwrRcvry

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
	attribute= AcPwrRcvryDelay	setting=Immediate User Random
	attribute= AcPwrRcvryUserDelay	setting= <integer>
	attribute=AesNi	setting=Enabled Disabled
	attribute= BiosUpdateControl	setting=Unlocked Limited Locked
	attribute=IntelTxt	setting=On Off
	attribute=NmiButton	setting=Enabled Disabled
	attribute=PasswordStatus	setting=Locked Unlocked
	attribute=PwrButton	setting=Enabled Disabled
	attribute=SetupPassword	setting= <string>
	attribute=SysPassword	setting= <string>
	attribute=TcmActivation	setting=NoChange Activate Deactivate
	attribute=TcmClear	CAUTION: Clearing the TPM will cause loss of all keys in the TPM. This could affect booting of the operating system. setting=Yes No
	attribute=TcmSecurity	setting=On Off
	attribute=TpmActivation	setting=NoChange Activate Deactivate
	attribute=TpmClear	CAUTION: Clearing the TPM will cause loss of all keys in the TPM. This could affect booting of the operating system. setting=Yes No
	attribute=TpmSecurity	setting=Off OnPbm OnNoPbm

Table 4-4. BIOS Setup Settings on PowerEdge yx2x Systems (continued)

Group	name=value pair 1 attribute=	name=value pair 2 setting=
UEFI Boot Settings	attribute=UefiBootSeq	sequence=aliasname1, aliasname2,..... aliasnameN

omconfig chassis currents or omconfig mainsystem currents



NOTE: This command is no longer available through Server Administrator.

omconfig chassis fans or omconfig mainsystem fans

Use the `omconfig chassis fans` or `omconfig mainsystem fans` command to set fan probe warning thresholds. As with other components, you can view both warning and failure threshold values, but you cannot set failure thresholds. The system manufacturer sets the minimum and maximum failure thresholds.

Valid Parameters for Fan Warning Thresholds

Table 4-5 lists the valid parameters for setting fan warning thresholds:

Table 4-5. Parameters of omconfig chassis fans or omconfig chassis fans

name=value pair	Description
index=<n>	Number of the probe or probe index (must specify).
warnthresh=default	Sets the minimum and maximum warning thresholds to default.
minwarnthresh=<n>	Minimum warning threshold.
maxwarnthresh=<n>	Maximum warning threshold.

Default Minimum and Maximum Warning Thresholds



NOTE: Systems that contain ESM3, ESM4, and BMC capabilities do not allow you to set warning threshold values to default values.

To set both the upper and lower fan warning threshold values to the recommended default value, type:

```
omconfig chassis fans index=0 warnthresh=default  
or
```

```
omconfig mainsystem fans index=0 warnthresh=  
default
```



NOTE: You cannot default one value and set another. In other words, if you default the minimum warning threshold value, you are also selecting the default value for the maximum warning threshold value.

Specifying a Value for Minimum and Maximum Warning Thresholds

If you prefer to specify values for the fan probe warning thresholds, you must specify the number of the probe you are configuring and the minimum and/or maximum warning threshold values. In the following example, the probe that is being configured is probe 0. The first command sets only the minimum threshold; the second sets the minimum and maximum thresholds:

```
omconfig chassis fans index=0 minwarnthresh=4580  
or
```

```
omconfig mainsystem fans index=0 minwarnthresh=  
4580
```

```
omconfig chassis fans index=0 minwarnthresh=4580  
maxwarnthresh=9160
```

or

```
omconfig mainsystem fans index=0 minwarnthresh=  
4580 maxwarnthresh=9160
```

When you issue the command and the system sets the values you specify, the following message is displayed:

```
Fan probe warning threshold(s) set successfully.
```



NOTE: You cannot set the minimum and maximum warning thresholds for the fan probe on PowerEdge *x8xx* and *x9xx* systems.

omconfig chassis frontpanel or omconfig mainsystem frontpanel

Use the `omconfig chassis frontpanel` or `omconfig mainsystem frontpanel` command to:

- configure the power button and the Nonmasking Interrupt (NMI) button
- configure the LCD to display:
 - No information
 - Custom information
 - Default system information
 - Service tag, system name
 - Remote access MAC addresses
 - System power
 - Remote access IP address
 - Ambient temperature of the system
 - Remote access IPv4 address
 - Remote access IPv6 address
- Specify and configure the LCD line number
- View the encryption state report of the LCD
- Configure LCD to indicate an active remote session when the Kernel-based Virtual Machine (KVM) is available



NOTE: You can configure the Power and NMI buttons only if they are present on the system.

Table 4-6 lists the valid parameters for the command.

Table 4-6. Parameters of `omconfig chassis frontpanel` or `omconfig mainsystem frontpanel`

name=value pair 1	name=value pair 2	Description
<code>lcdindex= <index></code>	NA	Specifies the LCD line number.
<code>config=none default custom</code>	NA	none: Sets the LCD text to none. default: Sets the LCD text to default. custom: Sets the LCD text to custom.
<code>text= <custom text></code>	NA	Sets the custom text for LCD when config=custom .
<code>nmibutton=enable disable</code>	NA	enable: Enables the NMI button on the system. disable: Disables the NMI button on the system.
<code>powerbutton=enable disable</code>	NA	true: Enables the Power button on the system. false: Disables the Power button on the system.
<code>config=sysname</code>	NA	Sets the name of the system.
<code>config=systempower</code>	NA	Sets the system power information.
<code>config=service-tag</code>	NA	Sets the system service tag information.
<code>config=remoteaccessipv4</code>	NA	Sets the remote access IPv4 information.
<code>config=remoteaccessipv6</code>	NA	Sets the remote access IPv6 information.
<code>config=remoteaccessmac</code>	NA	Sets the remote access MAC address.
<code>config=ipv4drac</code>		Sets IPv4 DRAC information.
<code>config=ipv6drac</code>		Sets IPv6 DRAC information.
<code>config=macdrac</code>	NA	Sets the DRAC's MAC address.
<code>config=ambienttemp</code>	NA	Sets the system temperature in centigrade.
<code>security=modify</code>	NA	Allows you to modify the LCD text.
<code>security=view</code>	NA	Provides read-only access to the LCD text.
<code>security=disabled</code>	NA	Provides limited access to the LCD text.
<code>remoteindication=true</code>	NA	LCD flashes when the system detects an active remote session.



NOTE: The options `ipv4drac`, `ipv6drac`, and `macdrac` are deprecated.

omconfig chassis info or omconfig mainsystem info

Use the `omconfig chassis info` or `omconfig mainsystem info` command to enter an asset tag name and a chassis name for the system. For a Blade systems, enter asset tag names for modular components as well. Table 4-7 lists the valid parameters for the command.

Table 4-7. Parameters of omconfig chassis info or omconfig mainsystem info

name=value pair	Description
index=<n>	Number of the chassis whose asset tag or name you are setting.
tag=<text>	Asset tag in the form of alphanumeric text. Asset tag should not exceed 10 characters.
name=<text>	Name of the chassis.

In the following example, the asset tag for the main system chassis is being set to `buildsys`:

```
omconfig chassis info index=0 tag=buildsys
```

or

```
omconfig mainsystem info index=0 tag=buildsys
```

Index 0 always defaults to the main system chassis. The following command omits `index=n`, but accomplishes the same thing:

```
omconfig chassis info tag=buildsys
```

or

```
omconfig mainsystem info tag=buildsys
```

When the command is executed successfully, the following message is displayed:

```
Chassis info set successfully.
```


For some chassis, you can assign a different name. You cannot rename the main system chassis. In the following example, the command renames chassis 2 from `storscsi1` to `storscsia`:

```
omconfig chassis info index=2 name=storscsia
```

or

```
omconfig mainsystem info index=2 name=storscsia
```

As with other commands, the CLI displays an error message if you do not have a chassis 2 (the main chassis=0). The CLI allows you to issue commands only for the system configuration you have.

omconfig chassis leds or omconfig mainsystem leds

Use the `omconfig chassis leds` or `omconfig mainsystem leds` command to specify when to flash a chassis fault LED or chassis identification LED. This command also allows you to clear the LED of the system hard drive. Table 4-8 lists the valid parameters for the command.

Table 4-8. Parameters of `omconfig chassis leds` or `omconfig mainsystem leds`

name=value pair 1	name=value pair 2	Description
index=<n>	NA	Number of the chassis where the LED resides (defaults to chassis 0, main system chassis).
led=fault	severity=warning critical	Select to flash the LED either when a warning event occurs or when a critical event occurs.
led=hdfault	action=clear	Sets the number of faults for the hard drive back to zero (0).
led=identify	flash=off on time-out=<n>	Sets the chassis identification LED to off or on. Set the time-out value for the LED to flash for a specified number of seconds.

omconfig chassis memorymode or omconfig mainsystem memorymode

Use the `omconfig chassis memorymode` or `omconfig mainsystem memorymode` command to specify the redundancy mode to use for the system memory in case of memory errors.

Redundant memory enables a system to switch to other available memory modules if unacceptable errors are detected in the modules that the system is currently using. The `omconfig chassis memorymode` or `omconfig mainsystem memorymode` command allows you to disable redundancy; when you disable redundancy, you instruct the system not to switch to other available memory modules when the module the system is using begins to encounter errors. To enable redundancy, choose among spare, mirror, RAID, and DDDC.

Spare mode disables a bank of system memory in which a correctable memory event is detected, enables the spare bank, and copies all the data from the original bank to the spare bank. Spare bank requires at least three banks of identical memory; the operating system does not recognize the spare bank.

Mirror mode switches to a redundant copy of memory when an uncorrectable memory event is detected. After switching to the mirrored memory, the system does not switch back to the original system memory until the next reboot. The operating system does not recognize half of the installed system memory in this mode.

RAID mode provides an extra level of memory checking and error recovery at the expense of some memory capacity.

The DDDC mode enables double device data correction. This ensures data availability after hard failure of x4 DRAM.



NOTE: This command is applicable only on systems prior to PowerEdge yx2x systems. To configure the attribute on PowerEdge yx2x systems, refer Table 4-4.

Table 4-9 lists the valid parameters for the command.

Table 4-9. Parameters of `omconfig chassis memorymode` or `omconfig mainsystem memorymode`

name=value pair 1	Description
<code>index=<n></code>	Number of the chassis where the memory module resides (the default is chassis 0, the main system chassis).
<code>redundancy=spare mirror disabled raid5 dddc</code>	<p>spare: Disables the memory module that has a correctable memory event and copies the failing module's data to a spare bank.</p> <p>mirror: Switches the systems to a mirrored copy of the memory if the failing module has an uncorrectable memory event. In mirror mode, the operating system does not switch back to the original module until the system reboots.</p> <p>disabled: Indicates that the system is not to use other available memory modules if uncorrectable memory events are detected.</p> <p>raid5: Method of system memory configuration. This is logically similar to the RAID-5 mode used in hard drive storage systems. This memory mode provides an extra level of memory checking and error recovery at the expense of some memory capacity. The RAID mode supported is RAID level 5 striping with rotational parity.</p> <p>dddc: The <code>dddc</code> mode enables double device data correction. This ensures data availability after hard failure of x4 DRAM.</p>
<code>opmode=mirror optimizer advecc</code>	<p>mirror: Switches the systems to a mirrored copy of the memory if the failing module has an uncorrectable memory event. In mirror mode, the operating system does not switch back to the original module until the system reboots.</p> <p>optimizer: Enables the DRAM controllers to operate independently in 64-bit mode and provide optimized memory performance.</p> <p>advanced ECC (advecc): Enables the two DRAM controllers to combine in 128-bit mode and provide optimized reliability. Memory that are not teamed by the controllers is not reported to the operating system.</p>

omconfig chassis pwrmanagement or omconfig mainsystem pwrmanagement

Use the `omconfig chassis pwrmanagement` or `omconfig mainsystem pwrmanagement` command to configure power cap and manage profiles that control power utilization.


 **NOTE:** This command is valid only on systems prior to PowerEdge *yx2x* systems.

Table 4-10 lists the valid parameters for the command.

Table 4-10. Parameters of omconfig chassis pwrmanagement or omconfig mainsystem pwrmanagement


name=value pair 1	name=value pair 2	Description
config=budget	cap= <value>	Sets the threshold value for power budget. NOTE: From PowerEdge <i>yx2x</i> system onwards, power budget requires license to configure power cap. If the appropriate license is not installed or has expired, the system displays an error message. For more information, see <i>The Dell Licensing Management Guide</i> on dell.com/support/manuals .
	setting=enable disable	enable: Enables powercap settings. disable: Disables powercap settings.
	unit=watt btuphr percent	watt: Configure the unit in Watts. btuphr: Configure the unit in BTU/hr. percent: Configure the unit in percentage.

Table 4-10. Parameters of omconfig chassis pwrmanagement or omconfig mainsystem pwrmanagement (continued)

name=value pair 1	name=value pair 2	Description
config=profile NOTE: This option is supported on systems prior to PowerEdge <i>12x</i> systems.	profile= maxperformance apc osctrl custom	<p>maxperformance: Sets the processor to the highest supported processor state. It offers maximum performance mode with minimal power economy.</p> <p>apc: Active Power Control (apc) enables the demand-based power management controlled by BIOS.</p> <p>osctrl: OS Control (osctrl) enables the demand-based power management controlled by the operating system.</p> <p>custom: This profile allows you to configure individual BIOS settings. It offers added control by displaying the underlying BIOS settings.</p> <p>min: Sets the CPU power consumption to minimum.</p> <p>max: Sets the CPU power consumption to maximum.</p> <p>systemdbpm: Sets the mode to system demand based power management.</p> <p>osdbpm: Sets the mode to operating system demand based power management.</p> <p>NOTE: These options are applicable only when a custom profile is selected.</p>
	cpupowermode=min max systemdbpm osdbpm	

Table 4-10. Parameters of `omconfig chassis pwrmanagement` or `omconfig mainsystem pwrmanagement` (*continued*)

name=value pair 1	name=value pair 2	Description
	memorypowermode= min 800 1067 1333 max	<p>min: Sets the mode to minimum power utilization.</p> <p>800 1067 1333: Set the mode to 800, 1067, or 1333 MHz.</p> <p>max: Sets the mode to maximum performance.</p> <p>NOTE: These options are applicable only when a custom profile is selected.</p>
	fanmode=min max	<p>min: Sets the mode to minimum power utilization.</p> <p>max: Sets the mode to maximum performance.</p> <p>NOTE: These options are applicable only when a custom profile is selected.</p>

 **NOTE:** Reboot the system for the power profiles setup options to take effect.

omconfig chassis pwrmonitoring or omconfig mainsystem pwrmonitoring

Use the `omconfig chassis pwrmonitoring` or `omconfig mainsystem pwrmonitoring` command to configure power consumption information.


Table 4-11 lists the valid parameters for the command.


Table 4-11. Parameters of `omconfig chassis pwrmonitoring` or `omconfig mainsystem pwrmonitoring`

name=value pair 1	name=value pair 2	Description
index=<n>	NA	Number of the probe or probe index (must specify).
config=probe	warnthresh= settodefault	Sets the minimum and maximum warning thresholds values to default .
	warnthresh=<n>	Sets a value for the warning threshold.
	unit=watt btuphr	<p>watt: Displays the unit in Watts.</p> <p>btuphr: Displays the unit in BTU/hr.</p>


Table 4-11. Parameters of `omconfig chassis pwrmonitoring` or `omconfig mainsystem pwrmonitoring` (continued)

name=value pair 1	name=value pair 2	Description
<code>config=resetreading</code>	<code>type=energy peakpower</code>	energy: Resets the system energy reading. peakpower: Resets the system peak power.

 **NOTE:** This command is applicable to selected Dell *xx0x* systems that support PMBus only.

 **NOTE:** Power monitoring requires license to configure the power budget information. If the appropriate license is not installed or has expired, the system displays an error message. For more information, see *The Dell Licensing Management Guide* at dell.com/support/manuals.

Default Warning Thresholds


 **NOTE:** Sensor managing capabilities vary across systems.

To set both the upper and lower power consumption probe warning threshold values to the recommended default value, type:

```
omconfig chassis pwrmonitoring config=probe index=
0 warnthresh=settodefult
```

or

```
omconfig mainsystem pwrmonitoring config=probe
index=0 warnthresh=settodefult
```

 **NOTE:** You cannot default one value and set another. If you default the minimum warning threshold value, you are also selecting the default value for the maximum warning threshold value.

Specify a Value for Warning Thresholds

If you prefer to specify values for the power consumption probe warning thresholds, you must specify the number of the probe you are configuring and the warning threshold value. Configure the values to display either in BTU/hr or Watts. In the following example, the probe that is being configured is probe 4:

```
omconfig chassis pwrmonitoring config=probe index=
4 warnthresh=325 unit=watt
```

or

```
omconfig mainsystem pwrmonitoring config=probe
index=4 warnthresh=325 unit=btuphr
```

When you issue the command and the system sets the values you specify, the following message is displayed:

```
Power consumption probe warning threshold(s) set
successfully.
```

omconfig chassis remoteaccess or omconfig mainsystem remoteaccess

Use the `omconfig chassis remoteaccess` or `omconfig mainsystem remoteaccess` command to configure:

- Remote access on a local area network (LAN).
- The serial port for BMC or RAC, whichever is installed.
- The BMC or RAC on a serial over LAN connection.
- Terminal settings for the serial port.
- Advanced settings for a serial over LAN connection.
- Information on a BMC or RAC user.
- Information on IPv6 and IPv4 interfaces.



NOTE: Enter the user ID to configure user information.

Type:

```
omconfig chassis remoteaccess
```

or

```
omconfig mainsystem remoteaccess
```


The output of the `omconfig chassis remoteaccess` or `omconfig mainsystem remoteaccess` command lists each of the available configurations. The following table lists the valid parameters:

Table 4-12. Parameters of `omconfig chassis remoteaccess` or `omconfig mainsystem remoteaccess`

name=value pair 1	name=value pair 2	Description
config= additional	ipv4=enable disable ipv6=enable disable	<p>enable: IPv4 stack to load on iDRAC.</p> <p>disable: IPv4 stack to flush on iDRAC.</p> <p>enable: Enables IPv6 stack to load on iDRAC.</p> <p>disable: Disables IPv6 stack to unload on iDRAC.</p> <p>NOTE: This option requires license to enable or disable ipv6. If the appropriate license is not installed or has expired, the system displays an error message. For more information, see <i>The Dell License Manager</i> at dell.com/support/manuals.</p>
config=advsol	characcuminterval= number charsendthreshold= number enableipmi= true false enablenic=true false	<p>number: Sets the character accumulate interval in 5 millisecond intervals.</p> <p>number: Sets the number of characters. BMC automatically sends a serial over LAN data packet that contains the number of characters as soon as this number of characters (or greater) has been accepted from the baseboard serial controller into the BMC.</p> <p>true: Enables IPMI over LAN.</p> <p>false: Disables IPMI over LAN.</p> <p>true: Enables DRAC NIC.</p> <p>false: Disables DRAC NIC</p> <p>NOTE: The enablenic option is supported only on PowerEdge <i>x9xx</i> systems that have DRAC 5 installed.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1	name=value pair 2	Description
config=	nicselection= sharedwithfailoveronall nic1 teamednic1nic2 dracnic	<p>sharedwithfailoveronall: Configures the new NIC selection option.</p> <p>nic1: Enables NIC 1.</p> <p>teamednic1nic2: Enables NIC teaming functionality.</p> <p>dracnic: Enables DRAC NIC if DRAC 5 is installed.</p> <p>NOTE: The nicselection option is supported only on PowerEdge <i>x9xx to yx1x</i> systems. From PowerEdge <i>yx2x</i> systems onwards, primarynw and failovernw replace nicselection.</p>
	primarynw=dedicated lom1 lom2 lom3 lom4	<p>dedicated: Configures dedicated port as primary network for remote access.</p> <p>NOTE: This option requires license to configure primarynw as dedicated. If the appropriate license is not installed or has expired, the system displays an error message. For more information, see <i>The Dell Licensing Management Guide</i> at dell.com/support/manuals.</p> <p>lom 1: Configures lom1 port as the primary network for remote access.</p> <p>lom 2: Configures lom2 port as the primary network for remote access.</p> <p>lom 3: Configures lom3 port as the primary network for remote access.</p> <p>lom 4: Configures lom4 port as the primary network for remote access.</p> <p>NOTE: The primarynw option is supported from PowerEdge <i>yx2x</i> systems onwards. If the primarynw is set to dedicated, then set failovernw to none.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1	name=value pair 2	Description
failovernw=	none lom1 lom2 lom3 lom4 all	<p>none: Configures the failover network to none.</p> <p>lom 1: Configures the failover network to lom 1.</p> <p>lom 2: Configures the failover network to lom 2.</p> <p>lom 3: Configures the failover network to lom 3.</p> <p>lom 4: Configures the failover network to lom 4.</p> <p>all: Configures the failover network to all loms.</p> <p>NOTE: The failovernw option is supported on PowerEdge <i>yx2x</i> systems onwards. Configure both primarynw and failovernw to set the nicselection. The primarynw and failovernw options cannot have the same value.</p> <p>NOTE: Failovernw requires license to configure the ports. If the appropriate license is not installed or has expired, the system displays an error message. For more information, see <i>The Dell Licensing Management Guide</i> at dell.com/support/manuals.</p>
ipaddress=	IP	ip: Sets the IP address if you have selected static as the IP address source for the BMC LAN interface.
subnet=	Subnet	Sets a subnet mask if you have selected static as the IP address source for the BMC LAN interface.
gateway=	Gateway	Gateway: Sets a gateway address if you have selected static as the IP address source for the BMC LAN interface.

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1 name=value pair 2 config=	Description
ipsource=static dhcp systemsoftware	<p>static: Static if the IP address of the BMC LAN interface is a fixed, assigned IP address.</p> <p>dhcp: DHCP if the source of the IP address of the BMC LAN interface is the dynamic host configuration protocol.</p> <p>systemsoftware: System software if the source of the IP address of the BMC LAN interface is from the system software.</p>
NOTE: All commands are not supported on the system.	
ipaddressv6=<IPv6 address> prefixlength=length	Validates the IPv6 address for configuration.
gatewayv6=<value>	Validates the IPv6 gateway.
ipsourcev6=static auto	<p>static: IPv6 address source is set to static.</p> <p>auto: IPv6 address source is set to auto.</p>
altdnsserverv6	Validates the address of the alternate DNS server for configuration.
dnssourcev6=static auto	<p>static: DNS source is set to static.</p> <p>auto: DNS source is set to auto.</p>
vlanenable=true false	<p>true: Enables the virtual LAN identification.</p> <p>false: Disables the virtual LAN identification.</p>
vlanid=number	<p>number: Virtual LAN identification in the range of 1 to 4094.</p>
vlanpriority=number	<p>number: Priority of virtual LAN identification in the range of 0 to 7.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1 config=	name=value pair 2	Description
config= <i>nic</i> (<i>continued</i>)	privilegelevel= administrator operator user	administrator: Sets the maximum privilege level that is accepted on a LAN channel to Administrator.
		operator: Sets the maximum privilege level that is accepted on a LAN channel to Operator.
		user: Sets the maximum privilege level that is accepted on a LAN channel to User.
	encryptkey=text confirmencryptkey=text	text: Text used for encryption and confirmation of encryption.
		NOTE: The text option is supported only on PowerEdge <i>x9xx</i> systems.
	prefdnsserverv6= <value>	Validates the preferred DNS server for configuration.

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1	name=value pair 2	Description
config=serial	baudrate=9600 19200 38400 57600 115200	<p>9600: Sets the connection speed to 9600 bits per second.</p> <p>19200: Sets the connection speed to 19200 bits per second.</p> <p>38400: Sets the volatile and non-volatile connection speed to 38400 bits per second.</p> <p>57600: Sets the volatile and non-volatile connection speed to 57600 bits per second.</p> <p>115200: Sets the volatile and non-volatile connection speed to 115200 bits per second.</p> <p>NOTE: Baud rates of 9600 and 19200 are supported on PowerEdge 1800, 1850, 2800, and 2850 systems.</p> <p>NOTE: Baud rates of 19200, 38400, and 57600 are supported on PowerEdge xx systems.</p> <p>NOTE: Baud rate of 115200 is supported on certain systems that have a DRAC 5 installed.</p> <p>NOTE: Baud rate of 19200, 57600, and 115200 are supported on xx systems that have iDRAC installed.</p>
config=	flowcontrol=none rtscts	<p>none: No control over the flow of communication through the serial port.</p> <p>rtscts: RTS is ready to send and CTS is clear to send.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1 config=	name=value pair 2	Description
config=serial (continued)	mode=directbasic directterminal directbasicterminal modembasic modemterminal modembasicterminal	<p>directbasic: Type of messaging used for IPMI messaging over a serial connection.</p> <p>directterminal: Type of messaging that uses printable ASCII characters and allows a limited number of text commands over a serial connection.</p> <p>directbasicterminal: Both basic and terminal mode messaging over a serial connection.</p> <p>modembasic: Type of messaging used for IPMI messaging over a modem.</p> <p>modemterminal: Type of messaging that uses printable ASCII characters and allows a limited number of text commands over a modem.</p> <p>modembasicterminal: Both basic and terminal messaging over a modem.</p> <p>NOTE: All commands are not supported on the system.</p>
	privilegelevel= administrator operator user	<p>administrator: Sets the maximum privilege level that is accepted on a serial connection, to Administrator.</p> <p>operator: Sets the maximum privilege level that is accepted on a serial connection, to Operator.</p> <p>user: Sets the maximum privilege level that is accepted on a serial connection, to User.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1	name=value pair 2	Description
config= serialoverlan	enable=true false	<p>true: Enables serial over LAN for the BMC.</p> <p>false: Disables serial over LAN for the BMC.</p>
	baudrate=9600 19200 38400 57600 115200	<p>9600: Sets the volatile and non-volatile connection speed to 9600 bits per second.</p> <p>19200: Sets the volatile and non-volatile connection speed to 19200 bits per second.</p> <p>38400: Sets the volatile and non-volatile connection speed to 38400 bits per second.</p> <p>57600: Sets the volatile and non-volatile connection speed to 57600 bits per second.</p> <p>115200: Sets the volatile and non-volatile connection speed to 115200 bits per second.</p> <p>NOTE: Baud rates of 9600 and 19200 are supported on PowerEdge 1800, 1850, 2800, and 2850 systems.</p> <p>NOTE: Baud rates of 19200, and 57600 are supported on PowerEdge <i>x9xx</i> systems. Baud rate of 115200 is supported on certain systems that have a DRAC 5 installed.</p> <p>NOTE: Baud rate of 19200, 57600, and 115200 are supported on <i>px0x</i> systems that have iDRAC installed.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1	name=value pair 2	Description
config= privilegelevel= administrator operator user		<p>administrator: Sets the maximum privilege level that is accepted on a serial over LAN channel, to Administrator.</p> <p>operator: Sets the maximum privilege level that is accepted on a serial over LAN channel, to Operator.</p> <p>user: Sets the maximum privilege level that is accepted on a serial over LAN channel, to User.</p>
config= settodefault		Takes the default configuration settings.
config= terminalmode	deletecontrol=outputdel outputbkspspbks	<p>outputdel: BMC outputs a <Delete> character when <Backspace> or <Delete> is received.</p> <p>outputbkspspbks: BMC outputs a <Backspace><Space><Backspace> character when <Backspace> or <Delete> is received.</p>
	handshakingcontrol= enabled disabled	<p>enabled: Directs the BMC to output a character sequence that indicates when its input buffer is ready to accept another command.</p> <p>disabled: Does not direct the BMC to output a character sequence that indicates when its input buffer is ready to accept another command.</p>
	inputlinesequenc=cr null	<p>cr: The console uses <CR> as a new line sequence.</p> <p>null: The console uses <NULL> as a new line sequence.</p>
	lineediting=enabled disabled	<p>enabled: Enables line editing as a line is typed.</p> <p>disabled: Disables line editing as a line is typed.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1 config=	name=value pair 2	Description
	newlinesequence=none crlf null cr lfcr lf	<p>none: BMC does not use a termination sequence.</p> <p>crlf: BMC uses <CR-LF> as a new line sequence when the BMC writes a new line to the console.</p> <p>null: BMC uses <Null> as a new line sequence when the BMC writes a new line to the console.</p> <p>cr: BMC uses <CR> as a new line sequence when the BMC writes a new line to the console.</p> <p>lfcr: BMC uses <LF-CR> as a new line sequence when the BMC writes a new line to the console.</p> <p>lf: BMC uses <LF> as a new line sequence when the BMC writes a new line to the console.</p>
config=user	id=number enable=true false id=number enableserialoverlan=true false id=number name=text	<p>id=number: ID (in numeric format) of the user being configured.</p> <p>enable=true: Enables the user.</p> <p>enable=false: Disables the user.</p> <p>id=number: ID (in numeric format) of the user being configured.</p> <p>enableserialoverlan=true: Enables serial over LAN.</p> <p>enableserialoverlan=false: Disables serial over LAN.</p> <p>NOTE: The enableserialoverlan option is supported only on PowerEdge <i>x9xx</i> systems.</p> <p>id=number: ID (in numeric format) of the user being configured.</p> <p>name=text: Name of the user.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1 config=	name=value pair 2	Description
	id=number newpw=text confirmnewpw=text	<p>id=number: ID (in numeric format) of the user being configured.</p> <p>newpw=text: New password of the user.</p> <p>confirmnewpw=text: Confirm the new password.</p>
	id=number serialaccesslevel= administrator operator user none	<p>id=number: ID (in numeric format) of the user being configured.</p> <p>serialaccesslevel=administrator: User with an ID has access privileges of an Administrator for the serial port channel.</p> <p>serialaccesslevel=operator: User with an ID has access privileges of an Operator for the serial port channel.</p> <p>serialaccesslevel=user: User with an ID has access privileges of a User for the serial port channel.</p> <p>serialaccesslevel=none: User with an ID does not have access privileges for the serial port channel.</p>
config=user (continued)	id=number lanaccesslevel= administrator operator user none	<p>id=number: ID number of the user being configured.</p> <p>lanaccesslevel=administrator: User with an ID has access privileges of an Administrator for the LAN channel.</p> <p>lanaccesslevel=operator: User with an ID has access privileges of an Operator for the LAN channel.</p> <p>lanaccesslevel=user: User with an ID has access privileges of a User for the LAN channel.</p> <p>lanaccesslevel=none: User with an ID does not have access privileges for the LAN channel.</p>

Table 4-12. Parameters of omconfig chassis remoteaccess or omconfig mainsystem remoteaccess (continued)

name=value pair 1	name=value pair 2	Description
config= config=	id=user id dracusergroup=admin poweruser guest custom none	<p>id=user id: User ID of the user being configured.</p> <p>dracusergroup=admin: Enables the Administrator user privileges.</p> <p>dracusergroup=poweruser: Enables the Power User privileges.</p> <p>dracusergroup=guest: Enables the Guest User privileges.</p> <p>dracusergroup=custom: Enables the Custom User privileges.</p> <p>NOTE: See Table 4-13 for more information on dracusergroup=custom.</p> <p>dracusergroup=none: Does not enable user privileges.</p>
config=user (continued)	id=user id extipmiusergroup=admin operator readonly custom none NOTE: extipmiusergroup user group is available only on Dell <i>yx0x</i> Blade systems.	<p>id=user id: User ID of the user being configured.</p> <p>extipmiusergroup=admin: Enables the Administrator user privileges.</p> <p>extipmiusergroup=operator: Enables the Operator privileges.</p> <p>extipmiusergroup=readonly: Enables the Read Only privileges.</p> <p>extipmiusergroup=custom: Enables the Custom User privileges.</p> <p>NOTE: It is recommended that you use the operator and readonly options for systems with iDRAC Enterprise.</p> <p>NOTE: See Table 4-14 for more information on extipmiusergroup=custom.</p> <p>extipmiusergroup=none: Does not enable user privileges.</p>

Usage of dracusergroup=custom

The following table displays the usage of **dracusergroup=custom**:

Table 4-13. Parameters of omconfig chassis remoteaccess config=user id=<user id> dracusergroup=custom or omconfig mainsystem remoteaccess config=user id=<user id> dracusergroup=custom

name=value pair 1	name=value pair 2	name=value pair 3	Description
config=user	id=user id dracusergroup= custom	logindrac= true false configuredrac= true false configure users= true false clearlogs= true false executeservercom mands= true false accessconsoleredir = true false accessvirtualmedia = true false testalerts= true false	true or false: Enables or disables logging into DRAC. true or false: Enables or disables configuration of DRAC. true or false: Enables or disables configuration of users. true or false: Enables or disables log clearance. true or false: Enables or disables execution of server commands. true or false: Enables or disables access to console redirection. true or false: Enables or disables access to virtual media. true or false: Enables or disables test alerts.

Usage of extipmiusergroup=custom

The following table displays the usage of extipmiusergroup=custom:

Table 4-14. Parameters of omconfig chassis remoteaccess config=user id=<user id> extipmiusergroup=custom or omconfig mainsystem remoteaccess config=user id=<user id> extipmiusergroup=custom

name=value pair 1	name=value pair 2	name=value pair 3	Description
config=user	id=user id extipmiusergroup= custom	loginidrac= true false configureidrac= true false	true or false: Enables or disables logging into iDRAC. true or false: Enables or disables configuration of iDRAC.

NOTE: extipmiusergroup user group is available only on the Dell *yx0x* Blade systems.

omconfig chassis temps or omconfig mainsystem temps

Use the omconfig chassis temps or omconfig mainsystem temps command to set warning thresholds for temperature probes. As with other components, you can view both warning and failure threshold values, but you cannot set failure threshold values. The system manufacturer sets the minimum and maximum failure threshold values.



NOTE: Threshold values that you can set vary from one system configuration to another.

Valid Parameters for Temperature Warning Thresholds

The following table lists the valid parameters for setting temperature warning thresholds:

Table 4-15. Parameters of omconfig chassis temps or omconfig mainsystem temps

name=value pair	Description
index=<n>	Number of the probe or probe index (specify).
warnthresh=default	Sets the minimum and maximum warning threshold values to default.
minwarnthresh=<n>	Sets the minimum warning threshold values (one decimal place).
maxwarnthresh=<n>	Sets the maximum warning threshold values (one decimal place).

Setting the Minimum and Maximum Warning Threshold Values to Default

To set both the maximum and minimum temperature warning threshold values to the recommended default value, type:

```
omconfig chassis temps index=0 warnthresh=default
```

or

```
omconfig mainsystem temps index=0 warnthresh=
default
```



NOTE: You cannot default one value and set another. In other words, if you set the minimum warning threshold value to the default value, you are also selecting the default value for the maximum warning threshold value.

You cannot default one value and set another. In other words, if you set the minimum warning threshold value to the default value, you are also selecting the default value for the maximum warning threshold value.



NOTE: The capabilities for managing sensors vary by systems.

Specifying a Value for the Minimum and Maximum Warning Thresholds

To specify values for the temperature probe warning thresholds, you must specify the number of the probe you are configuring and the minimum and/or maximum warning threshold value. In the following example, the probe that is being configured is probe 4:

```
omconfig chassis temps index=4 minwarnthresh=11.2
maxwarnthresh=58.7
```

or

```
omconfig mainsystem temps index=4 minwarnthresh=
11.2 maxwarnthresh=58.7
```

When you run the command and the system sets the values you specify, the following message is displayed:

```
Temperature probe warning threshold(s) set
successfully.
```



NOTE: On PowerEdge *x8xx* and *x9xx* systems, you can set the temperature probe warning threshold only for ambient temperature.

omconfig chassis volts or omconfig mainsystem volts

Use the `omconfig chassis volts` or `omconfig mainsystem volts` command to set voltage probe warning thresholds. As with the other components, you can view both the warning and failure threshold values, but you cannot set the failure threshold values. The system manufacturer sets the minimum and maximum values for the failure thresholds.

Valid Parameters for Voltage Warning Thresholds

The following table displays the valid parameters for setting voltage warning threshold values.


 **NOTE:** Threshold values that you can set vary from one system configuration to another.

Table 4-16. Parameters of omconfig chassis volts or omconfig mainsystem volts

name=value pair	Description
index=<n>	Probe index (specify).
warnthresh=default	Sets minimum and maximum warning threshold values to default.
minwarnthresh=<n>	Sets minimum warning threshold value (three decimal places).
maxwarnthresh=<n>	Sets maximum warning threshold value (three decimal places).


Setting the Minimum and Maximum Warning Threshold Values to Default

To set both the maximum and minimum voltage warning threshold values to the recommended default value, type:


```
omconfig chassis volts index=2 warnthresh=default
```

or

```
omconfig mainsystem volts index=2 warnthresh=
default
```

 **NOTE:** You cannot default one value and set another. In other words, if you default the minimum warning threshold value, you are also selecting the default value for the maximum warning threshold value.

You cannot default one value and set another. In other words, if you default the minimum warning threshold value, you are also selecting the default value for the maximum warning threshold value.

 **NOTE:** Systems that contain ESM3 capabilities do not allow you to set warning threshold values to default values.

Specifying a Value for Minimum and Maximum Warning Thresholds

To specify values for the voltage probe warning thresholds, you must specify the number of the probe you are configuring and the minimum and/or maximum warning threshold values.

In the following example, the probe being configured is probe 0:


```
omconfig chassis volts index=0 minwarnthresh=1.900  
maxwarnthresh=2.250
```

or

```
omconfig mainsystem volts index=0 minwarnthresh=  
1.900 maxwarnthresh=2.250
```

When you run the command and the system sets the values you specify, the following message is displayed:

```
Voltage probe warning threshold(s) set  
successfully.
```

 **NOTE:** On PowerEdge *x8xx* systems, you cannot set the minimum and maximum warning threshold values for the voltage.

omconfig preferences

Use the **omconfig preferences** command to set system preferences. Use the command line to set the SNMP root password and specify the user levels able to access Server Administrator. You can also configure the Active Directory service and SNMP set operations.

omconfig preferences cdvformat

Use the **omconfig preferences cdvformat** command to specify the delimiters for separating data fields reported in the custom delimited format. The valid values for delimiters are: exclamation, semicolon, at, hash, dollar, percent, caret, asterisk, tilde, question, colon, comma, and pipe.

The following example shows how to set the delimiter for separating data fields to asterisk:

```
omconfig preferences cdvformat delimiter=asterisk
```

omconfig preferences dirservice

Use the `omconfig preferences dirservice` command to configure the Active Directory service. The `<productname>oem.ini` file is modified to reflect these changes. If the "adproductname" is not present in the `<productname>oem.ini` file then a `<computername>-<productname>` default value is used. `<computername>` refers to the name of the computer running Server Administrator and `<productname>` refers to the name of the product defined in `omprv32.ini`. For Server Administrator, the product name is "omsa".

Therefore, for a computer named "myOmsa" running Server Administrator, the default name is "myOmsa-omsa". This is the name of Server Administrator defined in Active Directory by using the snap-in tool. This name must match the name for the application object in Active Directory in order to find user privileges.



NOTE: This command is applicable only on systems running the Windows operating system.

Table 4-17 lists the valid parameters for the command.


Table 4-17. Active Directory Service Configuration Parameters


name=value pair	Description
prodname= <text>	Specifies the product to which you want to apply the Active Directory configuration changes. prodname refers to the name of the product defined in <code>omprv32.ini</code> . For Server Administrator, it is "omsa".
enable= <true false>	true: Enables Active Directory service authentication support and the Active Directory Login option on the login page. false: Disables Active Directory service authentication support and the Active Directory Login option on the login page. If the Active Directory Login option is not present, you can only login to the local machine accounts.
adprodname= <text>	Specifies the name of the product as defined in the Active Directory service. This name links the product with the Active Directory privilege data for user authentication.

omconfig preferences snmp

Setting the SNMP root password allows administrators to restrict access to SNMP set operations that allow important systems management interventions. You can configure the SNMP root password normally (by typing all of the parameters in one command line) or interactively.

Using the `omconfig preferences snmp` command, you can also configure SNMP set operations.

 **NOTE:** Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

 **CAUTION:** Interactive mode is the more encrypted method of setting the SNMP root password. In non-interactive mode, the values you type for the `newpw` and `confirmnewpw` options appear on the system's monitor. In the interactive mode, the values you type for passwords are masked.

The parameters for configuring the SNMP root password are the same whether you configure it interactively or non-iteratively.


 **NOTE:** If you specify `setting=rootpw` but do not specify the other name=value pair parameters, you enter interactive mode, and the command line prompts you for the remaining values.

Table 4-18 lists the valid parameters for the command.

Table 4-18. SNMP Root Password Parameters

name=value pair	Description
<code>setting=rootpw</code>	Required.
<code>oldpw=<oldpassword></code>	Enter the old SNMP root password.
<code>newpw=<newpassword></code>	Sets the new SNMP root password.
<code>confirmnewpw=<newpassword></code>	Confirms the new SNMP root password.

When you type `omconfig preferences snmp setting=rootpw`, the system prompts you to supply values for the required parameters.

When you type `omconfig preferences snmp`, you must supply all the parameters in the initial command line. For example:

```
omconfig preferences snmp setting=rootpw oldpw=
openmanage newpw=serveradmin confirmnewpw=
serveradmin
```

Table 4-19. SNMP Set Operations Parameters

name=value pair	Description
setting=snmpset	Required
enable=true	Enables SNMP set operations
enable=false	Disables SNMP set operations

For example, to disable SNMP set operations use the following command:

```
omconfig preferences snmp setting=snmpset enable=false
```



NOTE: After executing the command to enable or disable SNMP set operations, restart services for the change to take effect. On systems running supported Microsoft Windows operating systems, restart the Windows SNMP Service. On systems running supported Red Hat Enterprise Linux and SUSE Linux Enterprise Server operating systems, restart Server Administrator services by running the `srvadmin-services.sh restart` command.

omconfig preferences useraccess

Depending on the policies of your organization, you may want to restrict the access that some user levels have to Server Administrator. The `omconfig preferences useraccess` command allows you to grant or withhold the right of users and power users to access Server Administrator.

Table 4-20 lists the valid parameters for the command.

Table 4-20. Enabling User Access for Administrators, Power Users, and Users

Command	Result	Description
omconfig preferences useraccess enable=user	Grants Server Administrator access to Users, Power Users, and Administrators.	Least restrictive form of user access.
omconfig preferences useraccess enable=poweruser	Grants Server Administrator access to Power Users and Administrators.	Excludes user level access only.
omconfig preferences useraccess enable=admin	Grants Server Administrator access to Administrators <i>only</i> .	Most restrictive form of user access.

omconfig preferences webserver

Use the `omconfig preferences webserver` command to set the encryption levels of the Server Administrator Web server and configure the URL launch point in the Server Administrator Web server environment.

Table 4-21 lists the parameters you can use with this command.

Table 4-21. Configuring Webserver Preferences

name=value pair 1	name=value pair 2	Description
attribute= sslencryption	setting=autonegotiate 128bitorhigher	autonegotiate: Sets the encryption levels automatically based on your web browser settings. 128bitorhigher: Sets the encryption levels to 128-bit or higher.
attribute=seturl	host=<string> port= <value>	Enables you to configure the URL launch point in the Server Administrator Web server environment.
attribute= signalgorithm	algorithm=MD5 SHA1 SHA256 SHA512	MD5: Sets the key signing algorithm to MD5. SHA1: Sets the key signing algorithm to SHA1. SHA256: Sets the key signing algorithm to SHA256. SHA512: Sets the key signing algorithm to SHA512.

For example, to set the URL launch point use the following command:

```
omconfig preferences webserver attribute=seturl  
host=<name, ip, fqdn> port=<number>
```

The host input must contain a valid IPv4 or IPv6 address, or a valid hostname.

To set the signing algorithm value, use the following command:

```
omconfig preferences webserver attribute=  
signalgorithm algorithm<MD5 | SHA1 | SHA256 | SHA512>
```

For more information on configuring Web server preferences, see the *Dell OpenManage IT Assistant User's Guide* at dell.com/support/manuals.

omconfig system or omconfig servermodule

Use the **omconfig system** or **omconfig servermodule** commands to clear logs, determine how various shutdown actions occur, set initial values or edit values for cost of ownership information, and determine how to respond to a hung operating system.

omconfig system alertaction or omconfig servermodule alertaction

You can use the **omconfig system alertaction** or **omconfig servermodule alertaction** command to determine how Server Administrator responds when a component has a warning or failure event.



NOTE: Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

Defining Alert Actions

An alert action is an action that you specify for the system to take when specified conditions are met. Alert actions determine in advance what actions to take for warning or failure events on intrusion, fans, temperatures, voltages, power supplies, memory, and redundancy.

For example, if a fan probe on the system reads a fan RPM of 300 and your minimum warning threshold value for that fan probe is 600 RPM, then the system generates a fan probe warning. Alert action settings determine how users are notified of this event. You can also configure alert actions for temperature, voltage, and probe readings that are within the warning or failure range.

Syntax for Setting Alert Actions

Setting an alert action requires two name=value pairs. The first name=value pair is the event type. The second name=value pair is the action to take for this event. For example, in the command:

```
omconfig system alertaction event=powersupply  
broadcast=true
```

or

```
omconfig servermodule alertaction event=  
powersupply broadcast=true
```

The event is a power supply failure and the action is to broadcast a message to all Server Administrator users.

Available Alert Actions

Table 4-22 lists the alert actions for each component that allows you to configure an alert action.

Table 4-22. Alert Actions You Can Set for Warning and Failure Events

Alert Action Setting	Description
alert=true false	true: Enables the system's console alert. When enabled, the monitor attached to the system from which you are running Server Administrator displays a visual alert message. false: Disables the system's console alert.
broadcast=true false	true: Enables a message or alert to broadcast to all users who have an active terminal (or Remote Desktop) session (Windows) or to operators that have an active shell on the local system (Linux). false: Disables alert broadcasts.
clearall=true	Clears all actions for this event.
execappath=<string>	Sets the fully qualified path and file name of the application you want to execute in case of an event for the component described in this window. NOTE: On Linux systems, user or user groups upgraded to administrator or administrator groups cannot configure this alert action setting.
execapp=false	Disables the executable application.

Components and Events for Which You Can Set Alert Actions

Table 4-23 lists the components and the events for which you can set alert actions. Components are listed in alphabetical order, except that warning events always precede failure events for a component.

Table 4-23. Events for Which You Can Set Alert Actions

Event Name	Description
event=batterywarn	Sets actions when a battery probe detects a warning value.
event=batteryfail	Sets actions when a battery probe detects a failure value.
event=fanwarn	Sets actions when a fan probe detects a warning value.
event=fanfail	Sets actions when a fan probe detects a failure value.
event=hardwarelogwarn	Sets actions when a hardware log detects a warning value.
event=hardwarelogfull	Sets actions when a hardware log is full.
event=intrusion	Sets actions when a chassis intrusion event is detected.
event=memprefail	Sets actions when a memory probe detects a prefailure value.
event=memfail	Sets actions when a memory probe detects a failure value.
event=systempeakpower	Sets actions when a power consumption probe detects peak power value.
event=systempowerwarn	Sets actions when a power consumption probe detects a warning value.
event=systempowerfail	Sets actions when a power consumption probe detects a failure value.
event=powersupply	Sets actions when a power supply probe detects a failure value.
event=powersupplywarn	Sets actions when a power supply probe detects a warning value.
event=processorwarn	Sets actions when a processor probe detects a warning value.
event=processorfail	Sets actions when a processor probe detects a failure value.
event=redundegrad	Sets actions when a redundant component becomes inoperative, resulting in less than full redundancy for that component.
event=redunlost	Sets actions when one or more redundant components become inoperative, resulting in a lost or a "no redundant components working" condition for that component.

Table 4-23. Events for Which You Can Set Alert Actions (continued)

Event Name	Description
event=tempwarn	Sets actions when a temperature probe detects a warning value.
event=tempfail	Sets actions when a temperature probe detects a failure value.
event=voltwarn	Sets actions when a voltage probe detects a warning value.
event=voltfail	Sets actions when a voltage probe detects a failure value.
event=watchdogasr	Sets actions that Server Administrator performs on the next system startup after a watchdog Automatic System Recovery (ASR) is performed for a hung operating system.
event=removableflashmediapresent	Sets actions that Server Administrator performs when the system detects a removable flash media.
event=removableflashmediaremoved	Sets actions that Server Administrator performs when a removable flash media is removed.
event=removableflashmediafail	Sets actions that Server Administrator performs when a removable flash media fails.
event=storagesyswarn	Sets actions when a storage system detects a warning value.
event=storagesysfail	Sets actions when a storage system detects a failure value.
event=storagectrlwarn	Sets actions when a storage controller detects a warning value.
event=storagectrlfail	Sets actions when a storage controller detects a failure value.
event=pdiskwarn	Sets actions when a physical disk detects a warning value.
event=pdiskfail	Sets actions when a physical disk detects a failure value.
event=vdiskwarn	Sets actions when a virtual disk detects a warning value.
event=vdiskfail	Sets actions when a virtual disk detects a failure value.
event=enclosurewarn	Sets actions when an enclosure detects a warning value.
event=enclosurefail	Sets actions when an enclosure detects a failure value.
event=storagectrlbatterywarn	Sets actions when a storage controller battery detects a warning value.

NOTE: This event is not available on Blade systems.

Table 4-23. Events for Which You Can Set Alert Actions (continued)

Event Name	Description
event=storagectrlbatteryfail	Sets actions when a storage controller battery detects a failure value.

NOTE: This event is not available on Blade systems.

Example Set Alert Action Commands

The following examples are valid example commands. For each successful command issued, the following message is displayed:

```
Alert action(s) configured successfully.
```

- For Current Probe Actions

To disable system console alert if a current probe detects a warning event, type:

```
omconfig system alertaction event=currentwarn  
alert=false
```

or

```
omconfig servermodule alertaction event=  
currentwarn alert=false
```

To enable broadcast messages if a current probe detects a failure event, type:

```
omconfig system alertaction event=currentfail  
broadcast=true
```

or

```
omconfig servermodule alertaction event=  
currentfail broadcast=true
```

- For Fan Probe Actions

To generate alerts when a fan probe detects a failure value, type:

```
omconfig system alertaction event=fanfail alert=  
true
```

or

```
omconfig servermodule alertaction event=fanfail  
alert=true
```

- For Chassis Intrusion Actions

To clear all alert actions for chassis intrusion, type:

```
omconfig system alertaction event=intrusion  
clearall=true
```

or

```
omconfig servermodule alertaction event=intrusion  
clearall=true
```

Commands for Clearing Logs



NOTE: For more information about alert messages, see the *Dell OpenManage Server Administrator Messages Reference Guide* at dell.com/support/manuals.

You can use the `omconfig system` or `omconfig servermodule` command to clear three logs: the alert log, the command log, and the hardware or ESM log.

To clear the contents of the alert log, type:

```
omconfig system alertlog action=clear
```

or

```
omconfig servermodule alertlog action=clear
```



NOTE: Entering an invalid RAC user name may prevent the command log from displaying. Clearing the command log resolves this condition.

To clear the contents of the command log, type:

```
omconfig system cmdlog action=clear
```

or

```
omconfig servermodule cmdlog action=clear
```

To clear the contents of the ESM log, type:

```
omconfig system esmlog action=clear
```


or

```
omconfig servermodule esmlog action=clear
```

omconfig system pedestinations or omconfig servermodule pedestinations

Use the `omconfig system pedestinations` or `omconfig servermodule pedestinations` command to set IP addresses for alert destinations.

Table 4-24 lists the valid parameters for the command.

 **NOTE:** You can either specify the index and IP address as parameters together or you can set the community string alone as a parameter.


 **NOTE:** Index 1 to 4 accepts an IPv4 address and index 5 to 8 accepts an IPv6 address.

Table 4-24. Parameters of omconfig system pedestinations or omconfig servermodule pedestinations

name=Value Pair	Description
destenable=true false	true: Enables an individual platform event filter destination after a valid IP address has been set. false: Disables an individual platform event filter.
index=number	Sets the index for the destination.
ipaddress=ipv4 ipv6 address	Sets the IP address for the destination.
communitystr=text	Sets the text string that acts as a password and is used to authenticate SNMP messages sent between the BMC and the destination management station.

omconfig system platformevents or omconfig servermodule platformevents

Use the `omconfig system platformevents` or `omconfig servermodule platformevents` command to configure shutdown action, if any, taken for a specific platform event. You can also enable or disable platform event filter alert generation.


 **CAUTION:** If you set a platform event shutdown action to anything other than *none* or *power reduction*, the system is forcefully shutdown when the specified event occurs. This shutdown is initiated by firmware and is carried out without first shutting down the operating system or any of the applications running on your system.

Table 4-25 lists the valid parameters for the command.



NOTE: Alert settings are mutually exclusive and you can set one at a time only. The action settings are also mutually exclusive and you can set one at a time only. However, alert and action settings are not mutually exclusive of each other.

Table 4-25. Parameters for Alert Action Command

Action	Description
action=disable	Disables the SNMP alert.
action=enable	Enables the SNMP alert.
action=none	Takes no action when the system is hung or has crashed.
action=powercycle	Turns off the electrical power to the system, pauses, turns the power on, and reboots the system.
action=poweroff	Turns off the electrical power to the system.
action=powerreduction	Reduces the processor speed until the power consumption comes down and reaches below the warning threshold. If the system power consumption stays below the warning threshold, increases the processor speed. NOTE: This action is applicable only for PowerEdge Rack and Tower systems earlier than PowerEdge μX systems.
action=reboot	Forces the operating system to shut down and initiates system startup, performs BIOS checks, and reloads the operating system.

Table 4-26 lists the components and events for which you can set platform events. Components are listed in alphabetical order, except that warning events always precede failure events for a component.

Table 4-26. Parameters of omconfig system platformevents

Event Name	Description
alertsenable=true false	<p>true: Enables generation of platform event filter alerts.</p> <p>false: Disables generation of platform event filter alerts.</p> <p>NOTE: This setting is independent of the individual platform event filter alert settings. For a platform event filter to generate an alert, both the individual alert and the global event alert are enabled.</p>
event=batterywarn	Sets action or enables or disables alert generation when a battery device detects that the battery is pending a failure condition.
event=batteryfail	Sets action or enables or disables alert generation when a battery device detects that the battery has failed.
event=discretevolt	Sets action or enables or disables alert generation when a discrete voltage probe detects that the voltage is too low for proper operation.
event=fanfail	Sets action or enables or disables alert generation when a fan probe detects that the fan is running too slow or not running.
event=hardwarelogfail	Enables or disables alert generation when a hardware log detects a failure value.
event=intrusion	Sets action or enables or disables alert generation when a chassis is opened.
event=powerwarn	Sets action or enables or disables alert generation when a power device probe detects that the power supply, voltage regulator module, or DC to DC converter is pending a failure condition.
event=powerabsent	Sets action or enables or disables alert generation when a processor probe detects that the power supply is absent.

Table 4-26. Parameters of omconfig system platformevents (continued)

Event Name	Description
event=powerfail	Sets action or enables or disables alert generation when a power device probe detects that the power supply, voltage regulator module, or DC to DC converter has failed.
event=processorwarn	Sets action or enables or disables alert generation when a processor probe detects that the processor is running at less than peak performance or speed.
event=processorfail	Sets action or enables or disables alert generation when a processor probe detects that the processor has failed.
event=processorabsent	Sets action or enables or disables alert generation when a processor probe detects that the processor is absent.
event=redundegrad	Sets action or enables or disables alert generation when the system fans and/or power supplies become inoperative, resulting in less than full redundancy for that component.
event=redunlost	Sets action or enables or disables alert generation when the system fans and/or power supplies become inoperative, resulting in a lost or a <i>no redundant components working</i> condition for that component.
event=systempowerwarn	Sets actions when a power consumption probe detects a warning value.
event=systempowerfail	Sets actions when a power consumption probe detects a failure value.
event=tempwarn	Sets action or enables or disables alert generation when a temperature probe detects that the temperature is approaching the maximum or minimum limits.
event= removableflashmediapresent	Sets actions that Server Administrator performs when the system detects a removable flash media.
event= removableflashmediawarn	Sets actions that Server Administrator performs when a removable flash media warning is displayed.

Table 4-26. Parameters of omconfig system platfomevents (continued)

Event Name	Description
event= removableflashmediafail	Sets actions that Server Administrator performs when a removable flash media fails.
event=tempfail	Sets action or enables or disables alert generation when a temperature probe detects that the temperature is either too high or low for proper operation.
event=voltfail	Sets action or enables or disables alert generation when a voltage probe detects that the voltage is too low for proper operation.
event=intdualsdcardcritical	Sets actions that Server Administrator performs when an internal dual SD card critical event occurs.
event=intdualsdcardwarn	Sets actions that Server Administrator performs when an internal dual SD card warning is displayed.
event=intdualsdcardabsent	Sets actions that Server Administrator performs when an internal dual SD card is not available.
event= intdualsdcardredunlost	Sets actions that Server Administrator performs when the redundancy of an internal dual SD card is lost.
event=watchdogasr	Enables or disables alert generation configured by the ASR when the system has hung or is not responding.

omconfig system events or omconfig servermodule events

Use the **omconfig system events** or **omconfig servermodule events** command to enable and disable SNMP traps for the components on your system.

 **NOTE:** Not all event types are present on the system.

There are four parameters in the name=value pair component of the **omconfig system events** command:

- Source
- Type
- Severity
- Index

Source

At present, `source=snmptraps` is a required name=value pair because SNMP is currently the only supported source of event notification for the system's components.

```
omconfig system events source=snmptraps
```

or

```
omconfig servermodule events source=snmptraps
```

Type

Type refers to the name of the component(s) involved in the event. Table 4-27 lists the valid parameters for system event types.

Table 4-27. System Event Type Parameters

name=value pair	Configures Events for
<code>type=accords</code>	AC power cords
<code>type=battery</code>	Battery
<code>type=all</code>	All device types
<code>type=fanenclosures</code>	Fan enclosures
<code>type=fans</code>	Fans
<code>type=intrusion</code>	Chassis intrusion
<code>type=log</code>	Logs
<code>type=memory</code>	Memory
<code>type=powersupplies</code>	Power supplies
<code>type=redundancy</code>	Redundancy
<code>type=systempower</code>	System power
<code>type=temps</code>	Temperatures
<code>type=volts</code>	Voltages
<code>type=systempeakpower</code>	System peak power
<code>type=removableflashmedia</code>	Removable flash media

Severity

In the context of configuring events, severity determines how severe an event is, before Server Administrator notifies you of the event for a component type. When there are multiple components of the same type in the same system chassis, you can specify whether you want notification for event severity according to the number of the component by using the `index=<n>` parameter. Table 4-28 lists the valid severity parameters.

Table 4-28. System Event Severity Parameters

Command	Result	Description
<code>omconfig system events type=<component name> severity=info</code> or <code>omconfig servermodule events type=<component name> severity=info</code>	Enables notification for informational, warning, and critical events.	Least restrictive form of event notification.
<code>omconfig system events type=<component name> severity=warning</code> or <code>omconfig servermodule events type=<component name> severity=warning</code>	Enables notification for warning and critical events.	Omits informational event notification, for example, when a component returns to normal status.
<code>omconfig system events type=<component name> severity=critical</code> or <code>omconfig servermodule events type=<component name> severity=critical</code>	Enables notification for critical events only.	Restrictive form of event notification.
<code>omconfig system events type=<component name> severity=none</code> or <code>omconfig servermodule events type=<component name> severity=none</code>	Disables event notification.	No event notification.

Index

Index refers to the number of an event for a particular component. Index is an optional parameter. When you omit the index parameter, events are configured for all components of the specified type, such as all fans. For example, when a system contains more than one fan, you can enable or disable event notification for a particular fan. An example command is as follows:

```
omconfig system events type=fan index=0 severity=critical
```

or

```
omconfig servermodule events type=fan index=0 severity=critical
```

As a result of the example command, Server Administrator sends an SNMP trap only when the first fan in the system chassis (index 0) has reached critical fan RPMs.

omconfig system webserver or omconfig servermodule webserver

Use the `omconfig system webserver` or `omconfig servermodule webserver` command to start or stop the Web server. Table 4-29 lists the valid parameters for the command.

Table 4-29. Web Server Configuration Parameters

name=value pair	Description
action=start	Starts the Web server.
action=stop	Stops the Web server.
action=restart	Restarts the Web server.

omconfig system recovery or omconfig servermodule recovery

Use the `omconfig system recovery` or `omconfig servermodule recovery` command to set the action when the operating system hangs or crashes. You can also set the number of seconds that must pass before the system is considered to have a hung operating system. Table 4-30 lists the valid parameters for the command.



NOTE: The upper and lower limits for the timer are dependent on the system model and configuration.

Table 4-30. Recovery Parameters

name=value pair	Description
action=none	Takes no action when the operating system is hung or has crashed.
action=reboot	Shuts down the operating system and initiates system startup, performing BIOS checks, and reloading the operating system.
action=poweroff	Turns off electrical power to the system.
action=powercycle	Turns off electrical power to the system, pauses, turns the power on, and reboots the system. Power cycling is useful when you want to re-initialize system components such as hard drives.
timer=<n>	Number of seconds that must pass before the operating system in a system is considered hung operating system (from 20 seconds to 480 seconds).

Example Recovery Commands

To set the action on hung operating system detection to powercycle, type:

```
omconfig system recovery action=powercycle
```

or

```
omconfig servermodule recovery action=powercycle
```

To set the system to hang for 120 seconds, before a recovery action is initiated, type:

```
omconfig system recovery timer=120
```

or

```
omconfig servermodule recovery timer=120
```

omconfig system shutdown or omconfig servermodule shutdown

Use the `omconfig system shutdown` or `omconfig servermodule shutdown` command to determine the way in which the system shuts down. During system shutdown, the default is to shut down the operating system before powering off the system. Shutting down the operating system first closes down the file system before powering the system down. If you do not want to shut down the operating system first, use the `osfirst=false` parameter. Table 4-31 lists the valid parameters for the command.



NOTE: Due to the limitations of certain operating systems (for example, VMware ESXi), certain features are not available with this release of OpenManage Server Administrator.

Table 4-31. Shutdown Parameters

name=value pair	Description
<code>action=reboot</code>	Shuts down the operating system and initiates system startup, performing BIOS checks and reloading the operating system.
<code>action=poweroff</code>	Turns off the electrical power to the system.
<code>action=powercycle</code>	Turns off the electrical power to the system, pauses, turns the power on, and reboots the system. Power cycling is useful when you want to re-initialize system components such as hard drives.
<code>osfirst=true false</code>	true: Closes the file system and exits the operating system before shutting down the system. false: Does not close the file system or shut down the operating system before shutting down the system.

Example Shutdown Commands

To set the shutdown action to reboot, type:

```
omconfig system shutdown action=reboot
```

or

```
omconfig servermodule shutdown action=reboot
```

To bypass operating system shutdown before the system is powered off, type:

```
omconfig system shutdown action=reboot osfirst=false
```

or

```
omconfig servermodule shutdown action=reboot osfirst=false
```

omconfig system thrmshutdown or omconfig servermodule thrmshutdown

Use the **omconfig system thrmshutdown** or **omconfig servermodule thrmshutdown** command to configure a thermal shutdown action. You can configure the system for a thermal shutdown when a temperature probe detects a temperature probe warning or failure event.

Table 4-32 lists the valid parameters for the command.

Table 4-32. Thermal Shutdown Parameters

name=value pair	Description
severity= disabled warning failure	disabled: Disable thermal shutdown. An administrator must intervene. warning: Perform a shutdown when a temperature warning event is detected. A warning event occurs when any temperature probe inside a chassis reads a temperature (in degree Celsius) that exceeds the maximum temperature warning threshold value. failure: Perform a shutdown when a temperature failure event is detected. A failure event occurs when any temperature probe inside a chassis reads a temperature (in degree Celsius) that exceeds the maximum temperature failure threshold value.

Example Thermal Shutdown Commands

To trigger a thermal shutdown when a temperature probe detects a failure event, type:

```
omconfig system thrmshutdown severity=failure
```

or

```
omconfig servermodule thrmshutdown severity=failure
```

To disable thermal shutdown so that an administrator has to initiate an **omconfig system shutdown**, type:

```
omconfig system thrmshutdown severity=disabled
```

or

```
omconfig servermodule thrmshutdown severity=disabled
```


omconfig system or servermodule assetinfo: Editing Cost of Ownership Values

The `omconfig system assetinfo` or `omconfig servermodule assetinfo` command helps you to edit a comprehensive set of parameters that make up the total cost of ownership of the system. This section explains the parameters that are reported and configured under the `omconfig system assetinfo` or `omconfig servermodule assetinfo` command.

Using the `omconfig system assetinfo` or `omconfig servermodule assetinfo` command, you can set governing values for configurable objects. Examples of `assetinfo` configuration capabilities include setting values for system owner, purchase price, details of any lease that is in effect, depreciation methods and rates, and location of the system, warranty and extended warranty duration, outsourcing details, and service level agreement.

User Level Required for Adding Asset Information

Power Users and Administrators can add and edit asset information.

Table 5-1. System Availability for the omconfig Command

Command Level 1	Command Level 2	Applicable to
omconfig	servermodule	Blade systems
	mainsystem	Blade systems
	system	Rack and Tower systems
	chassis	Rack and Tower systems

Adding Acquisition Information

Acquisition refers to the facts about a business entity's purchase or lease of a system. Use the `omconfig system assetinfo info=acquisition` or `omconfig servermodule assetinfo info=acquisition` command to add detailed information about the purchase or lease of a system. Table 5-2 lists the valid parameters for the command.

Table 5-2. Parameters of omconfig system assetinfo info=acquisition or omconfig servermodule assetinfo info=acquisition

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info= acquisition	costcenter= <text>	The name or code for the business entity that acquired the system.
				expensed=yes no	Whether the system is charged to a specific purpose or department such as research and development or sales.
				installdate= <mmdyy>	Date the system was put to service.
				ponum= <n>	Number of the document that authorized payment for the system.
				purchasecost= <n>	Price the owner paid for the system.
				purchasedate= <mmdyy>	Date the owner purchased the system.
				signauth= <text>	Name of the person who approved the purchase or the service call on the system.
				waybill= <n>	Receipt from the carrier for the goods received.

Example Commands for Adding Acquisition Information

To provide a value for an acquisition parameter, type a command of the form:
omconfig system assetinfo info=acquisition <name=value pair 2> or
omconfig servermodule assetinfo info=acquisition <name=value pair 2>.
For example, type:

```
omconfig system assetinfo info=acquisition  
purchasedate=122101
```

or

```
omconfig servermodule assetinfo info=acquisition  
purchasedate=122101
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one **omconfig system assetinfo** or **omconfig servermodule assetinfo** command at the same time, as long as all of the parameters for name=value pair 2 belong to name=value pair 1.

For example, to type more than one parameter value for **info=acquisition**, use the following example as a syntax guide:

```
omconfig system assetinfo info=acquisition  
purchasecost=5000  
waybill=123456 installdate=120501 purchasedate=  
050601 ponum=9999 signauth="John Smith" expensed=  
yes costcenter=finance
```

or

```
omconfig servermodule assetinfo info=acquisition  
purchasecost=5000  
waybill=123456 installdate=120501 purchasedate=  
050601 ponum=9999 signauth="John Smith" expensed=  
yes costcenter=finance
```

The following message is displayed:

```
Asset information set successfully.
```

Adding Depreciation Information

Depreciation is a set of methods for computing the devaluation of the asset over time. For example, the depreciation of a system that is expected to have a useful life of 5 years is 20 percent. Use the `omconfig system assetinfo info=depreciation` or `omconfig servermodule assetinfo info=depreciation` command to add details about how the system's depreciation is computed. Table 5-3 lists the valid parameters for the command.

Table 5-3. Parameters of `omconfig system assetinfo info=depreciation` or `omconfig servermodule assetinfo info=depreciation`

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
<code>omconfig</code>	<code>system</code> or <code>servermodule</code>	<code>assetinfo</code>	<code>info=depreciation</code>	<code>duration=<n></code>	Number of years or months over which a system is depreciated.
				<code>method=<text></code>	Steps and assumptions used to compute the system's depreciation.
				<code>percent=<n></code>	Portion of 100 that an asset is devalued or depreciated.
				<code>unit=months</code> <code>years</code>	Unit in months or years.

Example Commands for Adding Depreciation Information

To provide a value for a depreciation parameter, type a command of the form:
omconfig system assetinfo info=depreciation <name=value pair 2> or
omconfig servermodule assetinfo info=depreciation <name=value pair 2>.
For example, type:

```
omconfig system assetinfo info=depreciation  
method=straightline
```

or

```
omconfig servermodule assetinfo info=depreciation  
method=straightline
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one **omconfig system assetinfo** or **omconfig servermodule assetinfo** command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Extended Warranty Information

Use the **omconfig system extwarranty** or **omconfig servermodule extwarranty** command to assign values for extended warranty information. A warranty is a contract between the manufacturer or dealer and the purchaser of a system. The warranty identifies the components that are covered for repair or replacement for a specified length of time or usage. The extended warranty comes into force after the original warranty expires. For details on how to edit warranty values, see "Adding Warranty Information" on page 193.

Table 5-4 lists the valid parameters for the command.

Table 5-4. Parameters of `omconfig system assetinfo info=extwarranty` or `omconfig servermodule assetinfo info=extwarranty`

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info=		
			extwarranty		
			cost=	<cost>	Cost of the extended warranty service.
			enddate=	<enddate>	Date the extended warranty agreement ends.
			provider=	<provider>	Business entity that provides the extended warranty service.
			startdate=	<startdate>	Date the extended warranty service begins.

Example Command for Adding Extended Warranty Information

To provide a value for an extended warranty parameter, type a command of the form: `omconfig system assetinfo info=extwarranty <name=value pair 2>` or `omconfig servermodule assetinfo info=extwarranty <name=value pair 2>`.

For example, type:

```
omconfig system assetinfo info=extwarranty
enddate=012503
```

or

```
omconfig servermodule assetinfo info=extwarranty
enddate=012503
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one `omconfig system assetinfo` or `omconfig servermodule assetinfo` command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Lease Information

A lease is an agreement to pay for the use of a system for a specified period of time. The lessor retains ownership of the system. Table 5-5 lists the valid parameters for the command.

Table 5-5. Parameters of `omconfig system assetinfo info=lease` or `omconfig servermodule assetinfo info=lease`

Command Level 1	Command Level 2	Command Level 3	Name=Value Pair 1	Name=Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info=lease		
				buyout= <amount>	Amount of money paid to purchase a system from a lessor.
				lessor= <lessor>	Business entity that is leasing the system out.
				multischedule =true false	Whether cost of leasing the system is computed by more than one rate schedule.
				ratefactor= <factor>	Factor used to calculate the lease payment.
				value = <residual>	Fair market value of the system at the end of the lease period.

Example Command for Adding Lease Information

To provide a value for a lease parameter, type a command of the form:

```
omconfig system assetinfo info=lease <name=value pair 2> or
omconfig servermodule assetinfo info=lease <name=value pair 2>.
```

For example, type:

```
omconfig system assetinfo info=lease value=4500
or
omconfig servermodule assetinfo info=lease value=
4500
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one **omconfig system assetinfo** or **omconfig servermodule assetinfo** command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Maintenance Information

Maintenance refers to activities required to keep the system in good working order. Table 5-6 lists the valid parameters for adding maintenance information.

Table 5-6. Parameters of omconfig system assetinfo info=maintenance or omconfig servermodule assetinfo info=maintenance

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info= maintenance	enddate= <enddate>	Date the extended warranty agreement ends.

Table 5-6. Parameters of omconfig system assetinfo info=maintenance or omconfig servermodule assetinfo info=maintenance (continued)

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
				provider= <provider>	Business entity providing the maintenance service.
				startdate= <startdate>	Date the maintenance begins.
				restrictions= <string>	Activities not covered by the maintenance contract.

Example Command for Adding Maintenance Information

To provide a value for a maintenance parameter, type a command of the form: `omconfig system assetinfo info=maintenance <name=value pair 2>` or `omconfig system assetinfo info=maintenance <name=value pair 2>`.

For example, type:

```
omconfig system assetinfo info=maintenance
startdate=012504
```

or

```
omconfig servermodule assetinfo info=maintenance
startdate=012504
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one `omconfig system assetinfo` or `omconfig servermodule assetinfo` command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Outsource Information

Outsourcing is the practice of contracting with another business to maintain the system in good working order. Table 5-7 lists the valid parameters for adding outsource information.

Table 5-7. Parameters of omconfig system assetinfo info=outsource or omconfig servermodule assetinfo info=outsource

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info=		
			outsource		
				levels=<n>	Levels of service that the provider offers.
				problemcomponent = <component>	System component that requires maintenance.
				providerfee= <providerfee>	Amount of money charged for maintenance.
				servicefee= <servicefee>	Amount of money charged for service.
				signauth= <name>	Person who signed or authorized the service.

Example Command for Adding Outsource Information

To provide a value for an `outsource` parameter, type a command of the form:

```
omconfig system assetinfo info=outsource <name=value pair 2> or  
omconfig servermodule assetinfo info=outsource <name=value pair 2>.
```

For example, type:

```
omconfig system assetinfo info=outsource  
providerfee=75
```

or

```
omconfig servermodule assetinfo info=outsource  
providerfee=75
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one `omconfig system assetinfo` or `omconfig servermodule assetinfo` command at the same time, as long as all the parameters for `name=value pair 2` belong to `name=value pair 1`. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Owner Information

The owner is the party that holds legal property title to the system. Table 5-8 lists the valid parameters for adding owner information.

Table 5-8. Parameters of omconfig system assetinfo info=owner or omconfig servermodule assetinfo info=owner

Command Level 1	Command Level 2	Command Level 3	Name=Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info=owner	insuranceco = <company>	Name of the insurance company that insures the system.
			ownername = <business>		Business entity that owns the system.
			type=owned leased rented		Whether the user of the system owns, leases, or rents the system.

Example Command for Adding Owner Information

To provide a value for an owner parameter, type a command of the form: **omconfig system assetinfo info=owner <name=value pair 2>** or **omconfig servermodule assetinfo info=owner <name=value pair 2>**.

For example, type:

```
omconfig system assetinfo info=owner type=rented
or
omconfig servermodule assetinfo info=owner type=rented
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one `omconfig system assetinfo` or `omconfig servermodule assetinfo` command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Service Contract Information

A service contract is an agreement that specifies fees for preventive maintenance and repair of the system. Table 5-9 lists the valid parameters for adding contract information.

Table 5-9. Parameters of `omconfig system assetinfo info=service` or `omconfig servermodule assetinfo info=service`

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info= service	renewed= true false	Whether the service agreement has been renewed.
				type= <string>	Type of service that the contract covers.
				vendor= <business>	Business entity that offers service on the system.

Example Command for Adding Service Information

To provide a value for a service parameter, type a command of the form:
omconfig system assetinfo info=service <name=value pair 2> or
omconfig system assetinfo info=service <name=value pair 2>.

For example, type:

```
omconfig system assetinfo info=service vendor=
fixsystemco
```

or

```
omconfig servermodule assetinfo info=service
vendor=fixsystemco
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one **omconfig system assetinfo** or **omconfig servermodule assetinfo** command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Support Information

Support refers to technical assistance that the system user can seek when the user seeks guidance on the proper use of a system to perform tasks. Table 5-10 lists the valid parameters for adding support information.

Table 5-10. Parameters of omconfig system assetinfo info=support or omconfig servermodule assetinfo info=support

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info=	support	

Table 5-10. Parameters of omconfig system assetinfo info=support or omconfig servermodule assetinfo info=support (continued)

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
			automaticfix=	<programname>	Name of any application used to fix a problem automatically.
			helpdesk=	<text>	The help desk name or contact information such as a phone number, e-mail address, or website address.
			outsourced=	true false	Whether an external business entity provides technical support or the system owner's employees provide technical support.
			type=	network storage	Whether support is for network attached devices or for storage devices.

Example Command for Adding Support Information

To provide a value for a support parameter, type a command of the form:
omconfig system assetinfo info=support <name=value pair 2> or
omconfig servermodule assetinfo info=support <name=value pair 2>.

For example, type:

```
omconfig system assetinfo info=support outsourced=
true
```

or

```
omconfig servermodule assetinfo info=support
outsourced=true
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one `omconfig system assetinfo` or `omconfig servermodule assetinfo` command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding System Information

System information includes the primary user of the system, the phone number for the primary user, and the location of the system. Table 5-11 lists the valid parameters for adding system information.

Table 5-11. Parameters of `omconfig system assetinfo info=system` or `omconfig servermodule assetinfo info=system`

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info= system	location= <text>	Location of the system.
				primaryphone= <n>	Phone number of the primary user of the system.
				primaryuser= <user>	Primary user of the system.

Example Command for Adding System Information

To provide a value for a system parameter, type a command of the form:
omconfig system assetinfo info=system <name=value pair 2> or
omconfig servermodule assetinfo info=system <name=value pair 2>.

For example, type:

```
omconfig system assetinfo info=system location=
firstfloor
```

or

```
omconfig servermodule assetinfo info=system
location=firstfloor
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one **omconfig system assetinfo** or **omconfig servermodule assetinfo** command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Adding Warranty Information

Use the **omconfig system warranty** or **omconfig servermodule warranty** command to assign values for warranty information. A warranty is a contract between the manufacturer or dealer and the purchaser of a system.

The warranty identifies the components that are covered for repair or replacement for a specified length of time or usage. For details on editing extended warranty values, see "Adding Extended Warranty Information" on page 181. Table 5-12 lists the valid parameters for adding warranty information.

Table 5-12. Parameters of omconfig system assetinfo info=warranty or omconfig servermodule assetinfo info=warranty

Command Level 1	Command Level 2	Command Level 3	Name= Value Pair 1	Name= Value Pair 2	Description
omconfig	system or servermodule	assetinfo	info=	warranty	
				cost=	Cost of the warranty service.
				<cost>	
				duration=	Number of days or months that the warranty is in force.
				<duration>	
				enddate=	Date the warranty agreement ends.
				<enddate>	
				unit=days	Whether the number for duration refers to days or months.
				months	

Example Command for Adding Warranty Information

To provide a value for a warranty parameter, type a command of the form: **omconfig system assetinfo info=warranty <name=value pair 2>** or **omconfig servermodule assetinfo info=warranty <name=value pair 2>**.

For example, type:

```
omconfig system assetinfo info=warranty unit=days
```

or

```
omconfig servermodule assetinfo info=warranty
unit=days
```

The following message is displayed:

```
Asset information set successfully.
```

You can type more than one **omconfig system assetinfo** or **omconfig servermodule assetinfo** command at the same time, as long as all the parameters for name=value pair 2 belong to name=value pair 1. For an example, see "Example Commands for Adding Acquisition Information" on page 179.

Using the Storage Management Service

The Storage Management command line interface (CLI) enables you to perform reporting, configuration, and management functions of Storage Management from an operating system command shell. The Storage Management CLI also enables you to script command sequences.

The Storage Management CLI provides expanded options for the Dell OpenManage Server Administrator **omreport** and **omconfig** commands. For more information, see the *Dell OpenManage Server Administrator Installation Guide* and *Dell OpenManage Management Station Software Installation Guide*. See the Storage Management online Help or the *Dell OpenManage Server Administrator Storage Management User's Guide* for more information on Storage Management.

CLI Command Syntax

Like all Server Administrator commands, the **omreport** and **omconfig** command syntax consists of specifying command *levels*. The first command level is the command name: **omreport** or **omconfig**. Subsequent command levels provide a greater degree of specification regarding the type of object on which the command operates or the information that the command displays.

For example, the following **omconfig** command syntax has three levels:

```
omconfig storage pdisk
```

Table 6-1 describes these command levels.

Table 6-1. Example Command Levels

Command level 1	Command level 2	Command level 3	Use
omconfig			Specifies the command
	storage		Indicates the Server Administrator service (in this case, storage management) that implements the command
		pdisk	Specifies the type of object on which the command operates

Following the command levels, the **omreport** and **omconfig** command syntax may require one or more name=value pairs. The name=value pairs specify exact objects (such as a specific physical disk) or options (such as **blink** or **unblink**) that the command implements.

For example, the following **omconfig** command syntax for blinking a physical disk has three levels and three name=value pairs:

```
omconfig storage pdisk action=blink controller=id  
pdisk=<PDISKID>
```

where PDISKID= <connector:enclosureID:targetID | connector:targetID>

In this example, the *id* in **controller=id** is the controller number such that controller 1 is specified as **controller=1**.

Syntax for Required, Optional, and Variable Command Elements

The **omreport** and **omconfig** commands have multiple name=value pairs. These name=value pairs may include required, optional, and variable parameters. Table 6-2 describes the syntax used to indicate these parameters.

Table 6-2. Syntax For of Parameters

Syntax	Description
<code>controller=id</code>	<p>Indicates the controller ID as reported by the <code>omreport storage controller</code> command. To obtain these values, type <code>omreport storage controller</code> to display the controller IDs and then type <code>omreport storage pdisk controller=id</code> to display the IDs for the physical disks attached to the controller.</p> <p>For example, the <code>controller=id</code> parameter is specified as <code>controller=1</code>.</p>
<code>connector=id</code>	<p>Indicates the connector ID as reported by the <code>omreport</code> command. To obtain this value, type <code>omreport storage controller</code> to display the controller IDs and then type <code>omreport storage connector controller=id</code> to display the IDs for the connectors attached to the controller.</p> <p>For example, the <code>connector=id</code> parameter is specified as <code>connector=2</code>.</p>
<code>vdisk=id</code>	<p>Indicates the virtual disk ID as reported by the <code>omreport</code> command. To obtain this value, type <code>omreport storage controller</code> to display the controller IDs and then type <code>omreport storage vdisk controller=id</code> to display the IDs for the virtual disks on the controller.</p> <p>For example, the <code>vdisk=id</code> parameter is specified as <code>vdisk=3</code>.</p>
<code>enclosure= <ENCLOSUREID></code>	<p>Indicates a particular enclosure by specifying either <code>enclosure=connector</code> or <code>enclosure=connector:enclosureID</code>.</p> <p>To obtain these values, type <code>omreport storage controller</code> to display the controller IDs and then type <code>omreport storage enclosure controller=id</code> to display the IDs for the enclosures attached to the controller.</p>
<code>pdisk=<PDISKID></code>	<p>Indicates a particular physical disk by specifying either <code>connector:targetID</code> or <code>connector:enclosureID:targetID</code>.</p> <p>To obtain the values for the connector, enclosure, and physical disk (targetID), type <code>omreport storage controller</code> to display the controller IDs and then type <code>omreport storage pdisk controller=id</code> to display the IDs for the physical disks attached to the controller.</p>

Table 6-2. Syntax For of Parameters (continued)

Syntax	Description
battery=id	Indicates the battery ID as reported by the omreport command. To obtain this value, type <code>omreport storage controller</code> to display the controller IDs and then type <code>omreport storage battery controller=id</code> to display the ID for the controller battery.
< >	The caret symbols (< >) enclose variable elements that you must specify. For example, the <code>name=<string></code> parameter is specified as <code>name=VirtualDisk1</code> .
[]	The bracket symbols ([]) indicate optional elements that you can choose whether or not to specify. For example, when creating a virtual disk, the <code>[name=<string>]</code> parameter indicates that you have the option of specifying the virtual disk name. If you omit this parameter from the syntax, then a default name for the virtual disk is chosen for you.
	The pipe symbol () separates two or more options from which one only is selected. For example, when creating a virtual disk, the <code>cachepolicy=d c</code> indicates that the cache policy is specified as either <code>cachepolicy=d</code> or <code>cachepolicy=c</code> .

User Privileges for omreport storage and omconfig storage

Storage Management requires Administrator privileges to use the **omconfig storage** command. User and Power User privileges are sufficient to use the **omreport storage** command.

omreport storage Commands

The **omreport** command allows you to view storage component information for disks, controllers, enclosures, batteries, global storage properties, connectors, cachecades, fluid cache, and partitions that are part of the storage system. This chapter explains how to get reports with the level of detail that you want.

Commands documented in this chapter vary in whether they define the fields that appear in the results of a particular **omreport** command. Fields are defined only if they have a special or less familiar use.

The following sections provide the **omreport** command syntax required to display the information of various storage components.

To see a list of valid commands for **omreport storage**, type:

```
omreport storage -?
```

Table 7-1 provides the **omreport storage** command syntax.

Table 7-1. Syntax for omreport storage help

Command Level 1	Command Level 2	Command Level 3 Use
omreport		
	storage	Displays a list of storage components for which omreport commands are available.
	pdisk	Displays a list of the omreport storage pdisk parameters for displaying physical disk information.
	vdisk	Displays a list of omreport storage vdisk parameters for displaying virtual disk information.
	controller	Displays a list of the omreport storage controller parameters for displaying controller information.
	enclosure	Displays a list of the omreport storage enclosure parameters for displaying enclosure information.

Table 7-1. Syntax for omreport storage help (continued)

Command Level 1	Command Level 2	Command Level 3 Use
	battery	Displays a list of the omreport storage battery parameters for displaying battery information.
	globalinfo	Displays a list of the omreport storage globalinfo parameters for displaying global storage property information.
	connector	Displays a list of the omreport storage connector parameters for displaying connector information.
	cachecade	Displays a list of the omreport storage cachecade parameters for displaying cachecade properties.
	pciessed	Displays the properties of the PCIe SSD subsystem.
	fluidcache	Displays the fluid cache properties and the associated fluid cache disks.
	fluidcachepool	Displays fluid cache pool properties.
	partition	Displays the partition details of the specified virtual disk.
	fluidcachedisk	Displays the fluid cache disk properties.

omreport Physical Disk Status

Table 7-2 describes the syntax for the **omreport physical disk** commands.

Table 7-2. omreport Physical Disk Commands

Required Command Levels (1, 2, 3) and name=value pair	Optional name=value pairs	Use
omreport storage pdisk	controller=id where <i>id</i> is the controller number. For example: controller=0	Displays all physical disks attached to the specified controller. NOTE: If a physical disk was replaced by another disk as part of the replace member operation, the state of the physical disk is displayed as Replacing .
	vdisk=id where <i>id</i> is the virtual disk number. For example: vdisk=1	Displays all physical disks included in the specified virtual disk on the controller.
	cachecade=id where <i>id</i> is the cachecade number. For example: cachecade=1	Displays all physical disks included in the specified cachecade on the controller.
	connector=id where <i>id</i> is the connector number. For example: connector=1	Displays all physical disks attached to the specified connector on the controller.
	pdisk=connectorID : targetID connectorID : enclosureID : slotID where <i>connectorID:targetID</i> is the connector number and the physical disk number and <i>connectorID:enclosureID:slotID</i> is the connector number, enclosure number, and slot number. For example: pdisk=0:2 or pdisk=0:1:2	Displays the specified physical disk on the specified connector on the controller.

omreport Virtual Disk Status

Table 7-3 describes the syntax for the **omreport** virtual disk commands.

Table 7-3. omreport Virtual Disk Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage vdisk		Displays property information for all virtual disks on all controllers.
	controller=id where <i>id</i> is the controller number. For example: controller=0.	Displays all virtual disks on the specified controller.
	controller=id vdisk=id where <i>id</i> is the controller number and the virtual disk number. For example: controller=0 vdisk=1.	Displays the specified virtual disk on the controller.

omreport Controller Status

Table 7-4 describes the syntax for the **omreport controller** commands.

Table 7-4. omreport Controller Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage controller		Displays property information for all controllers attached to the system.
	controller=id where <i>id</i> is the controller number. For example: controller=0	Displays the specified controller and all attached components such as enclosures, virtual disks, physical disks, and so on.
	controller=id info=foreignkeyids	Displays the locked foreign configuration information for import or clear operations.
	controller=id info=pdslotreport	Displays the empty and occupied slot details of enclosures in the controller.

NOTE: This command is not supported on Blackplane, SCSI, and SWRAID controllers.

omreport Enclosure Status

Table 7-5 describes the syntax for the **omreport enclosure** commands.

Table 7-5. omreport Enclosure Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage enclosure	<p>controller=id where <i>id</i> is the controller number</p> <p>controller=id enclosure=<ENCLOSUREID> where <i>id</i> is the controller number and <ENCLOSUREID> is the enclosure ID. Example for SCSI controllers: controller=0 enclosure=2. Example for SAS controllers: controller=0 enclosure=1:2.</p>	<p>Displays property information for all enclosures attached to the system.</p> <p>Displays all enclosures connected to the controller.</p> <p>Displays the specified enclosure and its components.</p>

The following sections provide the `omreport storage enclosure` command syntax required to execute the enclosure commands.

omreport Temperature Probe Status

Table 7-6 describes the syntax for the `omreport probe` commands.

Table 7-6. omreport Temperature Probe Commands

Required Command Levels (1, 2, 3) and name=value pair	Optional name=value pairs	Use
omreport storage enclosure	<p><code>controller=id enclosure=<ENCLOSUREID> info=temps</code> where <i>id</i> is the controller number and <code><ENCLOSUREID></code> is the enclosure ID. Example for SCSI controllers: <code>controller=0 enclosure=2 info=temps</code>. Example for SAS controllers: <code>controller=0 enclosure=1:2 info=temps</code>.</p>	<p>Displays property information for all enclosures attached to the system.</p> <p>Displays the information about the temperature probes for the specific enclosure.</p>
	<p><code>controller=id enclosure=<ENCLOSUREID> info=temps index=n</code> where <i>id</i> is the controller number and <code><ENCLOSUREID></code> is the enclosure number and “n” is the number of a temperature probe. For example: <code>controller=0 enclosure=2 info=temps index=1</code></p>	<p>Displays the temperature probes for the specified enclosure.</p>

omreport Fan Status

Table 7-7 describes the syntax for the **omreport fan** commands.

Table 7-7. omreport Fan Status Commands

Required Command Levels (1, 2, 3) and name=value pair	Optional name=value pairs	Use
omreport storage enclosure	controller=id enclosure= <ENCLOSUREID> info=fans	Displays property information for all enclosures attached to the system.
	where id is the controller number and ENCLOSUREID is the enclosure number. For example: controller=0 enclosure=2	Displays the information about the fans for the specific enclosure.
	NOTE: For SCSI controllers, the ID specified in enclosure=<ENCLOSUREID> is the connector number and for Serial Attached SCSI (SAS) controllers, ID is the connectorNumber:EnclosureIndex.	
	controller=id enclosure= <ENCLOSUREID> info=fans index=n	Displays the specified fan.
	where id is the controller number and ENCLOSUREID is the enclosure number and “n” is the number of a fan. For example: controller=0 enclosure=2 info=fans index=1	

omreport Power Supply Status

Table 7-8 describes the syntax for the **omreport power supply** commands.

Table 7-8. omreport Power Supply Commands

Required Command Levels (1, Optional name=value pairs 2, 3) and name=value pair	Use
omreport storage enclosure	Displays property information for all enclosures attached to the system.
<p>controller=id enclosure=<ENCLOSUREID> info=pwrsupplies</p> <p>where id is the controller number and ENCLOSUREID is the enclosure number. For example: controller=0 enclosure=2</p>	Displays the information about the power supplies for the specific enclosure.
<p>controller=id enclosure=<ENCLOSUREID> info=pwrsupplies index=n</p> <p>where id is the controller number and ENCLOSUREID is the enclosure number and “n” is the number of a power supply. For example: controller=0 enclosure=2 info=pwrsupplies index=1</p>	Displays the specified power supply.

omreport EMM Status


 **NOTE:** The status of the EMMs is displayed as degraded if there is a mismatch between the EMM firmware.

Table 7-9 describes the syntax for the **omreport EMM** commands.

Table 7-9. omreport EMM Commands

Required Command Levels (1, 2, 3) and name=value pair	Optional name=value pairs	Use
omreport storage enclosure	<p data-bbox="393 596 658 679">controller=id enclosure=<ENCLOSUREID> info=emms</p> <p data-bbox="393 695 658 807">where id is the controller number and ENCLOSUREID is the enclosure number.</p> <p data-bbox="393 815 658 863">For example: controller=0 enclosure=2</p> <p data-bbox="393 879 658 962">controller=id enclosure=<ENCLOSUREID> info=emms index=n</p> <p data-bbox="393 978 658 1206">where id is the controller number and ENCLOSUREID is the enclosure number and “n” is the number of an EMM. For example: controller=0 enclosure=2 info=emms index=1</p>	<p data-bbox="669 504 957 587">Displays property information for all enclosures attached to the system.</p> <p data-bbox="669 596 957 738">Displays the information about the enclosure management modules (EMMs) for the specific enclosure.</p> <p data-bbox="669 879 957 930">Displays the specified EMMs.</p>

omreport Enclosure Slot Occupancy Report

Table 7-10 describes the syntax for the **omreport enclosure slot occupancy report** commands.

Table 7-10. omreport Enclosure Slot Occupancy Report Commands

Required Command Levels (1, 2, 3) and name=value pair	Optional name=value pairs	Use
omreport storage enclosure		Displays property information for all enclosures attached to the system.
	controller=id enclosure=<ENCLOSUREID> info=pdslotreport where <i>id</i> is the controller number and <i>ENCLOSUREID</i> is the enclosure number. For example: controller=0 enclosure=2	Displays the information about the empty and occupied slots for the specific enclosure. NOTE: This command is not supported on Blackplane, SCSI, and SWRAID controllers.

omreport Battery Status

Table 7-11 describes the syntax for the **omreport battery** commands.

Table 7-11. omreport Battery Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage battery		Displays all batteries present on all controllers on the system (some controllers do not have batteries).
	controller=id where <i>id</i> is the controller number. For example: controller=0	Displays the battery on the specified controller.
	controller=id battery=id where <i>id</i> is the controller number. For example: controller=0	Displays the specified battery.

omreport Global Information (Smart Thermal Shutdown Status, Hot Spare Protection Policy)

Table 7-12 describes the syntax for the omreport global information command.

Table 7-12. omreport Global Information Commands

Required Command Levels (1, 2, 3)	Optional name= value pairs	Use
omreport storage globalinfo		<p>Displays whether smart thermal shutdown is enabled or disabled. For more information, see the "omconfig Global Enable Smart Thermal Shutdown" on page 283.</p> <p>Displays the hot spare protection policy that you have set. For more information, see the <i>Dell OpenManage Server Administrator Storage Management User's Guide</i> at dell.com/support/manuals.</p>

omreport Connector Status

Table 7-13 describes the syntax for the **omreport connector** commands.

Table 7-13. omreport Connector Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage connector		Displays all connectors present on all controllers on the system. NOTE: This command works only when the controller ID is specified.
	controller= <i>id</i> where <i>id</i> is the controller number. For example: controller=0	Displays the connectors on the specified controller.
	controller = <i>id</i> connector= <i>id</i> where <i>id</i> is the connector number. For example: connector=0	Displays the specified connector. NOTE: When the connectors are connected to the enclosure in redundant path mode, the Name of the connector is displayed as Logical Connector .

omreport Cachecade Status

Table 7-14 describes the syntax for the **omreport cachecade** commands.

Table 7-14. omreport Cachecade Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage cachecade		Displays property information for all cachecades on all controllers.
	controller=id where <i>id</i> is the controller number. For example: controller=0.	Displays all cachecades on the specified controller.
	controller=id cachecade=id where <i>id</i> is the controller number and the cachecade number. For example: controller=0 cachecade=1.	Displays the specified cachecade on the controller.

omreport PCIe SSD Status

Table 7-14 describes the syntax for the **omreport pciessd** command.

Table 7-15. omreport PCIe SSD Command

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage pciessd		Displays the properties of the PCIe SSD subsystem.
	subsystem=id	Displays the properties of the specified PCIe subsystem.

omreport Fluid Cache Status

Table 7-14 describes the syntax for the **omreport fluidcache** command.

Table 7-16. omreport Fluid Cache Command

Required Command Levels (1, 2, 3)	Use
omreport storage fluidcache	Displays fluid cache properties and the associated fluid cache disks.

omreport Fluid Cache Pool Status

Table 7-14 describes the syntax for the `omreport fluidcachepool` command.

Table 7-17. omreport Fluid Cache Pool Command

Required Command Levels (1, 2, 3)	Use
omreport storage fluidcachepool	Displays the properties of the fluid cache pool.

omreport Partition Status

Table 7-14 describes the syntax for the **omreport partition** commands.

Table 7-18. omreport Partition Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs	Use
omreport storage partition	controller=id vdisk=id where <i>id</i> is the controller number and the virtual disk number. For example: controller=0 vdisk=1.	Displays the partition details of the specified virtual disk. Displays all the partitions in the specified virtual disk on the controller.

omreport Fluid Cache Disk Status

Table 7-14 describes the syntax for the **omreport fluidcachedisk** command.

Table 7-19. omreport Fluid Cache Disk Command

Required Command Levels (1, 2, 3)	Use
omreport storage fluidcachedisk	Displays the properties of the fluid cache disks.

omconfig storage Commands

The **omconfig** commands allows you to configure physical disks, virtual disks, controllers, enclosures, batteries, global information, connectors, and cachecades.

The following sections provide the **omconfig** command syntax required to display the status of various storage components.

To see a list of valid commands for **omconfig storage**, type:

```
omconfig storage -?
```

Table 8-1 provides the **omconfig storage** command syntax.

Table 8-1. Syntax of omconfig storage help

Command Level 1	Command Level 2	Command Level 3 Use
omconfig		
	storage	Sets the storage component properties for which omconfig commands are available.
	pdisk	Displays the list of omconfig storage pdisk parameters for configuring physical disks.
	vdisk	Displays the list of omconfig storage vdisk parameters for configuring virtual disks.
	controller	Displays a list of the omconfig storage controller parameters for configuring controllers.
	enclosure	Displays a list of the omconfig storage enclosure parameters for configuring enclosures.
	battery	Displays a list of the omconfig storage battery parameters for configuring batteries.
	globalinfo	Displays a list of the omconfig storage globalinfo parameters for configuring global storage properties.

Table 8-1. Syntax of omconfig storage help (continued)

Command Level 1	Command Level 2	Command Level 3 Use
	connector	Displays a list of the omconfig storage connector parameters for configuring connectors.
	cachecade	Displays a list of the omconfig storage cachecade parameters for configuring cachecades.
	pciessed	Displays PCIe SSD configuration commands.
	fluidcache	Displays the fluid cache properties and the associated fluid cache disks.
	fluidcachepool	Displays the fluid cache pool properties.
	partition	Displays the partition details of the specified controller and virtual disk.
	fluidcachedisk	Displays the fluid cache disk properties.

omconfig Physical Disk Commands

The following sections provide the **omconfig** command syntax required to execute physical disk tasks.

Table 8-2. omconfig Physical Disk Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage pdisk	<pre> action=blink controller=id pdisk= <PDISKID> action=unblink controller=id pdisk= <PDISKID> action=remove controller=id pdisk= <PDISKID> action=instantsecureerase controller=id pdisk= <PDISKID> action=initialize controller=id pdisk= <PDISKID> action=offline controller=id pdisk= <PDISKID> action=online controller=id pdisk= <PDISKID> action=assignglobalhotspare controller=id pdisk= <PDISKID> assign= <yes no> action=rebuild controller=id pdisk= <PDISKID> action=cancelrebuild controller=id pdisk= <PDISKID> </pre>

Table 8-2. omconfig Physical Disk Commands (continued)

Required Command Levels (1, 2, 3)	Optional name=value pairs
	action=cancelreplacemember controller=id pdisk= <PDISKID>
	action=clear controller=id pdisk= <PDISKID>
	action=cancelclear controller=id pdisk= <PDISKID>
	action=enabledevicewritecache controller=id pdisk= <PDISKID>
	action=disabledevicewritecache controller=id pdisk= <PDISKID>
	action=exportlog controller=id pdisk= <PDISKID>
	action=convertraidtononraid controller=id pdisk= <PDISKID>
	action=convertnonraidtoraid controller=id pdisk= <PDISKID>

omconfig Blink Physical Disk

You can blink the light (light emitting diode or LED display) on one or more physical disks attached to a controller. Use the following **omconfig** command syntax to blink the LEDs of one or more physical disks.

Complete Syntax

```
omconfig storage pdisk action=blink controller=id  
pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax


To blink the LEDs of physical disk 0 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=blink controller=1
pdisk=0:0
```

- For SAS controllers:

```
omconfig storage pdisk action=blink controller=1
pdisk=0:2:0
```

 **NOTE:** On a SAS controller, the physical disk resides in enclosure 2.

omconfig Unblink Physical Disk

You can disable the light (light emitting diode or LED display) on one or more physical disks attached to a controller. Use the following **omconfig** command syntax to unblink one or more physical disks.

Complete Syntax

```
omconfig storage pdisk action=unblink controller=
id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax


To disable the LED on physical disk 0 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=unblink controller=1
pdisk=0:0
```

- For SAS controllers:

```
omconfig storage pdisk action=unblink controller=1
pdisk=0:2:0
```

 **NOTE:** On a SAS controller, the physical disk resides in enclosure 2.

omconfig Prepare to Remove Physical Disk

Use the following **omconfig** command syntax to prepare a physical disk for removal:

Complete Syntax

```
omconfig storage pdisk action=remove controller=id  
pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To remove physical disk 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=remove controller=1  
pdisk=0:3
```

- For SAS controllers:

```
omconfig storage pdisk action=remove controller=1  
pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Instant Erase Secured Physical Disk

Use the following **omconfig** command syntax to erase the data on a given encrypted disk:

Complete Syntax

```
omconfig storage pdisk action=instantsecureerase  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To erase the data on physical disk 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=instantsecureerase  
controller=1 pdisk=0:3
```
- For SAS controllers:

```
omconfig storage pdisk action=remove controller=1  
pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Initialize Physical Disk

Use the following **omconfig** command syntax to initialize a physical disk.

Complete Syntax

```
omconfig storage pdisk action=initialize  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To initialize physical disk 4 on controller 1, type:

```
omconfig storage pdisk action=initialize  
controller=1 pdisk=4
```

omconfig Offline Physical Disk

Use the following **omconfig** command syntax to make a physical disk offline:

Complete Syntax

```
omconfig storage pdisk action=offline controller=  
id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To make physical disk 3 on connector 0 of controller 1 offline:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=offline controller=1  
pdisk=0:3
```

- For SAS controllers:

```
omconfig storage pdisk action=offline controller=1  
pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Online Physical Disk

Use the following **omconfig** command syntax to bring an offline physical disk back online.

Complete Syntax

```
omconfig storage pdisk action=online controller=id  
pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To bring physical disk 3 on connector 0 of controller 1 back online:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=online controller=1
pdisk=0:3
```

- For SAS controllers:

```
omconfig storage pdisk action=online controller=1
pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Assign Global Hot Spare

Use the following **omconfig** command syntax to assign a physical disk as a global hot spare.

Complete Syntax

```
omconfig storage pdisk action=assignglobalhotspare
controller=id pdisk=<PDISKID> assign=yes
```

where *id* is the controller ID. The **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To assign the physical disk 3 on connector 0 of controller 1 as a global hot spare:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=assignglobalhotspare
controller=1 pdisk=0:3 assign=yes
```


- For SAS controllers:

```
omconfig storage pdisk action=assignglobalhotspare  
controller=1 pdisk=0:2:3 assign=yes
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Rebuild Physical Disk

Use the following **omconfig** command syntax to rebuild a failed physical disk. Rebuilding a disk may take several hours. If you need to cancel the rebuild, use the **Cancel Rebuild** task. See the *Dell OpenManage Online Help* for more information about Rebuild Physical Disk.

Complete Syntax

```
omconfig storage pdisk action=rebuild controller=  
id pdisk=<PDISKID>
```

where *id* is the controller ID. The **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To rebuild the physical disk 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=rebuild controller=1  
pdisk=0:3
```

- For SAS controllers:

```
omconfig storage pdisk action=rebuild controller=1  
pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Cancel Rebuild Physical Disk

Use the following **omconfig** command syntax to cancel a rebuild that is in progress. If you cancel a rebuild, the virtual disk remains in a degraded state. See the *Dell OpenManage Online Help* for more information about Cancel Rebuild Physical Disk.

Complete Syntax

```
omconfig storage pdisk action=cancelrebuild  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To cancel the rebuild of the physical disk 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=cancelrebuild  
controller=1 pdisk=0:3
```

- For SAS controllers:

```
omconfig storage pdisk action=cancelrebuild  
controller=1 pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Cancel Replace Member

Use the following **omconfig** command syntax to cancel a replace member operation.

Complete Syntax

```
omconfig storage pdisk action=cancelreplacemember  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To cancel replace member operation on disk 0:0:1 which is connected to controller 0, type:

```
omconfig storage pdisk action=cancelreplacemember  
controller=0 pdisk=0:0:1
```

omconfig Clear Physical Disk

Use the following **omconfig** command to clear data or a configuration from a physical disk.

Complete Syntax

```
omconfig storage pdisk action=clear controller=id  
pdisk=<PDISKID>
```

where *id* is the controller ID. The **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To clear the physical disk 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=clear controller=1  
pdisk=0:2:3
```

omconfig Cancel Clear Physical Disk

Use the following **omconfig** command to cancel a clear operation in progress on a physical disk.

Complete Syntax

```
omconfig storage pdisk action=cancelclear  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

In this example, you want to cancel the clear of physical disk 3 on connector 0 of controller 1. On a SAS controller, the physical disk resides in enclosure 2.

To cancel the clear of the physical disk described in this example:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage pdisk action=cancelclear  
controller=1 pdisk=0:2:3
```

omconfig Enable Device Write Cache

Use the following **omconfig** command to enable write cache on a physical disk for the PCIe SSD controller.

Complete Syntax

```
omconfig storage pdisk action=  
enabledevicewritecache controller=id pdisk=  
<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To enable write cache on physical disk 3 on connector 0 of controller 1:

- For SAS controllers:

```
omconfig storage pdisk action=
enabledevicewritecache controller=1 pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Disable Device Write Cache

Use the following **omconfig** command to disable write cache on a physical disk for the PCIe SSD controller.

Complete Syntax

```
omconfig storage pdisk action=
disabledevicewritecache controller=id pdisk=
<PDISKID>
```

where *id* is the controller ID. The **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To disable Write Cache on physical disk 3 on connector 0 of controller 1:

- For SAS controllers:

```
omconfig storage pdisk action=
disabledevicewritecache controller=1 pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Export Reliability Log

Use the following **omconfig** command to export the log on a physical disk or the PCIe SSD controller.

Complete Syntax

```
omconfig storage pdisk action=exportlog  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To export log on physical disk 3 on connector 0 of controller 1:

- For SAS controllers:

```
omconfig storage pdisk action=exportlog  
controller=1 pdisk=0:2:3
```

omconfig Convert RAID to Non-RAID

Use the following **omconfig** command to convert RAID to non-RAID on a physical disk.

Complete Syntax

```
omconfig storage pdisk action=convertraidtononraid  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The <PDISKID> variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.



NOTE: To convert multiple RAID to non-RAID on a given controller, use **omconfig storage controller action=convertraidtononraid** command. For more information, see "omconfig Convert Multiple RAID to Non-RAID" on page 273.

Example Syntax

To convert RAID to non-RAID on physical disk 3 on connector 0 of controller 1:

- For SAS controllers:

```
omconfig storage pdisk action=raidtononraid  
controller=1 pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Convert Non-RAID to RAID

Use the following **omconfig** command to convert non-RAID to RAID on a physical disk.

Complete Syntax

```
omconfig storage pdisk action=convertnonraidtoraid  
controller=id pdisk=<PDISKID>
```

where *id* is the controller ID. The **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.



NOTE: To convert multiple non-RAID to RAID on a given controller, use **omconfig storage controller action=convertnonraidtoraid** command. For more information, see "omconfig Convert Multiple Non-RAID to RAID" on page 273.

Example Syntax

To convert non-RAID to RAID on physical disk 3 on connector 0 of controller 1:

- For SAS controllers:

```
omconfig storage pdisk action=nonraidtoraid  
controller=1 pdisk=0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Virtual Disk Commands

The following sections provide the `omconfig` command syntax required to execute virtual disk tasks.

⚠ CAUTION: The `omconfig storage vdisk action=deletevdisk controller=id vdisk=id` command deletes a virtual disk. Deleting a virtual disk destroys all information including file systems and volumes residing on the virtual disk.

Table 8-3. omconfig Manage Virtual Disk Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage vdisk	action=checkconsistency controller=id vdisk=id action=cancelcheckconsistency controller=id vdisk=id action=pausecheckconsistency controller=id vdisk=id action=resumecheckconsistency controller=id vdisk=id action=blink controller=id vdisk=id action=unblink controller=id vdisk=id action=initialize controller=id vdisk=id action=fastinit controller=id vdisk=id [force=yes] action=slowinit controller=id vdisk=id [force=yes] action=cancelinitialize controller=id vdisk=id action=cancelbginitialize controller=id vdisk=id action=assigndedicatedhotspare controller=id vdisk=id pdisk= <PDISKID> assign=<yes no> action=deletevdisk controller=id vdisk=id [force=yes] action=format controller=id vdisk=id action=reconfigure controller=id vdisk=id raid=<c r0 r1 r1c r5 r10> pdisk=<PDISKID> [size=<size> vdcapacityexpansion=yes sizeinpercent=<1 to 100>] action=securevd controller=id vdisk=id action=clearvdbadblocks controller=id vdisk=id action=changepolicy controller=id vdisk=id [readpolicy=<ra nra ara rc nrc> writepolicy=<wb wt wc nwc fwb> cachepolicy=<d c> diskcachepolicy=<enabled disabled>]

Table 8-3. omconfig Manage Virtual Disk Commands (continued)

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage vdisk (continued)	action=replacememberdisk controller=id vdisk=id source=<PDISKID> destination=<PDISKID>
	action=rename controller=id vdisk=id
	action=enablefluidcache controller=id vdisk=id devicename=<string> cachepolicy=<wb wt>
	action=disablefluidcache controller=id vdisk=id devicename=<string>
	action=reactivate controller=id vdisk=id devicename=<string>

omconfig Check Consistency

Use the following **omconfig** command syntax to initiate a check consistency on a virtual disk. The check consistency task verifies the virtual disk's redundant data.

Complete Syntax

```
omconfig storage vdisk action=checkconsistency
controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To run a check consistency on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=checkconsistency
controller=1 vdisk=4
```

omconfig Cancel Check Consistency

Use the following **omconfig** command syntax to cancel a check consistency while in progress.

Complete Syntax

```
omconfig storage vdisk action=  
cancelcheckconsistency controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To cancel a check consistency on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=  
cancelcheckconsistency controller=1 vdisk=4
```

omconfig Pause Check Consistency

Use the following **omconfig** command syntax to pause a check consistency while it is in progress. See the *Dell OpenManage Online Help* for more information about **Pause Check Consistency**.

Complete Syntax

```
omconfig storage vdisk action=  
pausecheckconsistency controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To pause a check consistency on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=  
pausecheckconsistency controller=1 vdisk=4
```

omconfig Resume Check Consistency

Use the following **omconfig** command syntax to resume a check consistency after it has been paused.

Complete Syntax

```
omconfig storage vdisk action=  
resumecheckconsistency controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To resume a check consistency on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=  
resumecheckconsistency controller=1 vdisk=4
```

omconfig Blink Virtual Disk

Use the following **omconfig** command syntax to blink the physical disks included in a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=blink controller=id  
vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To blink the physical disks in virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=blink controller=1  
vdisk=4
```

omconfig Unblink Virtual Disk

Use the following **omconfig** command syntax to unblink the physical disks included in a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=unblink controller=  
id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To unblink the physical disks in virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=unblink controller=1  
vdisk=4
```

omconfig Initialize Virtual Disk

Use the following **omconfig** command syntax to initialize a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=initialize  
controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.


Example Syntax

To initialize virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=initialize  
controller=1 vdisk=4
```

omconfig Fast Initialize Virtual Disk

Use the following `omconfig` command syntax to fast initialize a virtual disk.

 **CAUTION:** You may receive a warning message if you attempt to delete the system or boot partition. However, this warning message is not generated always. Ensure that you do not delete the system or boot partition or other vital data when using this command.

Complete Syntax

```
omconfig storage vdisk action=fastinit controller=  
id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the `omreport` command. To obtain these values, type `omreport storage controller` to display the controller IDs and then type `omreport storage vdisk controller=ID` to display the IDs for the virtual disks attached to the controller.

In some circumstances, you may receive a warning message if this command deletes the system or boot partition. You can override this warning by using the `force=yes` parameter. In this case, the syntax is as follows:

```
omconfig storage vdisk action=fastinit controller=  
id vdisk=id force=yes
```


Example Syntax

To fast initialize virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=fastinit controller=1  
vdisk=4
```

omconfig Slow Initialize Virtualize Disk

Use the following `omconfig` command syntax to slow initialize a virtual disk.

 **CAUTION:** You may receive a warning message if you attempt to delete the system or boot partition. However, this warning message is not generated always. Ensure that you do not delete the system or boot partition or other vital data when using this command.

Complete Syntax

```
omconfig storage vdisk action=slowinit controller=  
id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

In some circumstances, you may receive a warning message if this command deletes the system or boot partition. You can override this warning by using the **force=yes** parameter. In this case, the syntax is as follows:

```
omconfig storage vdisk action=slowinit controller=  
id vdisk=id force=yes
```

Example Syntax

To slow initialize virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=slowinit controller=  
1 vdisk=4
```

omconfig Cancel Initialize Virtual Disk

Use the following **omconfig** command syntax to cancel the initialization of a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=cancelinitialize  
controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To cancel the initialization of virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=cancelinitialize  
controller=1 vdisk=4
```

omconfig Cancel Background Initialize

Use the following **omconfig** command syntax to cancel the background initialization process on a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=cancelbginitialize  
controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To cancel background initialization on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=cancelbginitialize  
controller=1 vdisk=4
```

omconfig Assign Dedicated Hot Spare

Use the following **omconfig** command syntax to assign one or more physical disks to a virtual disk as a dedicated hot spare.

Complete Syntax

```
omconfig storage vdisk action=  
assigndedicatedhotspace controller=id vdisk=id  
pdisk=<PDISKID> assign=yes
```

where *id* is the controller ID and virtual disk ID. The **<PDISKID>** variable specifies the physical disk.

To obtain the values for the controller, virtual disk, and physical disk, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** and **omreport storage pdisk controller=ID** to display the IDs for the virtual disks and physical disks attached to the controller.

Example Syntax

To assign physical disk 3 on connector 0 of controller 1 as a dedicated hot spare to virtual disk 4:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage vdisk action=
assignededicatedhotspare controller=1 vdisk=4
pdisk=0:3 assign=yes
```

- For SAS controllers:

```
omconfig storage vdisk action=
assignededicatedhotspare controller=1 vdisk=4
pdisk=0:2:3 assign=yes
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Delete Virtual Disk

Use the following `omconfig` command syntax to delete a virtual disk.



CAUTION: Deleting a virtual disk destroys all information including file systems and volumes residing on the virtual disk. You may receive a warning message if you attempt to delete the system or boot partition. However, this warning message is not generated always. Ensure that you do not delete the system or boot partition or other vital data when using this command.

Complete Syntax

```
omconfig storage vdisk action=deletevdisk
controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the `omreport` command. To obtain these values, type `omreport storage controller` to display the controller IDs and then type `omreport storage vdisk controller=ID` to display the IDs for the virtual disks attached to the controller.

In some circumstances, you may receive a warning message if this command deletes the system or boot partition. You can override this warning by using the `force=yes` parameter. In this case, the syntax is as follows:

```
omconfig storage vdisk action=deletevdisk
controller=id vdisk=id force=yes
```


Example Syntax

To delete virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=deletevdisk  
controller=1 vdisk=4
```

omconfig Format Virtual Disk

Use the following **omconfig** command syntax to format a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=format controller=id  
vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To format virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=format controller=1  
vdisk=4
```

omconfig Reconfiguring Virtual Disks

You can reconfigure a virtual disk to change the virtual disk's RAID level or increase its size by either adding physical disks or using the available free space. On some controllers, you can also remove physical disks.

Complete Syntax

```
omconfig storage vdisk action=reconfigure  
controller=id vdisk=id raid=<c| r0| r1| r1c| r5|  
r6| r10> pdisk=<PDISK> [size=<size>  
vdcapacityexpansion=yes sizeinpercent=<1 to 100>]
```

Example Syntax

To reconfigure virtual disk 4 to a size of 800 MB, use RAID-5 and physical disks 0 through 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage vdisk action=reconfigure
controller=1 vdisk=4 raid=r5 size=800m pdisk=
0:0,0:1,0:2,0:3
```

- For SAS controllers:

```
omconfig storage vdisk action=reconfigure
controller=1 vdisk=4 raid=r5 pdisk=
0:2:0,0:2:1,0:2:2,0:2:3
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

Example Syntax

To increase the size of the virtual disk by 20 percent using the available free space, use RAID-5 and physical disks 0 through 3 on connector 0 of controller 1:

- For SAS controllers:

```
omconfig storage vdisk action=reconfigure
controller=1 vdisk=4 raid=r5 pdisk=
0:2:0,0:2:1,0:2:2,0:2:3 vdcapacityexpansion=yes
sizeinpercent=20
```



NOTE: **vdcapacityexpansion** parameter is supported only on PERC H700 and PERC H800 controllers. If you set **vdcapacityexpansion=yes**, specify **sizeinpercent**. If you do not set **vdcapacityexpansion**, specify **size**.



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Secure Virtual Disk

Use the following **omconfig** command syntax to encrypt a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=securevd controller=  
id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To encrypt virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=securevd controller=  
1 vdisk=4
```

omconfig Clear Virtual Disk Bad Blocks

Use the following **omconfig** command syntax to clear virtual disk bad blocks.

Complete Syntax

```
omconfig storage vdisk action=clearvdbadblocks  
controller=id vdisk=id
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain the values for controller ID and virtual disk ID, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

For example, to clear bad blocks on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=clearvdbadblocks  
controller=1 vdisk=4
```

omconfig Change Virtual Disk Policy

Use the following **omconfig** command syntax to change a virtual disk's read, write, or cache policy.

Complete Syntax

```
omconfig storage vdisk action=changepolicy
controller=id vdisk=id [diskcachepolicy=
<enabled|disabled> | readpolicy=<ra| nra| ara|
rc|nrc> | writepolicy=<wb| wt| wc| nwc> | fwb>
cachepolicy=<d | c>]
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

See the *Dell OpenManage Online Help* for more information about the controller-specific diskcache, read, write, and cache policy. For information on specifying these parameters using the **omconfig** command, see the following:

- [readpolicy=<ra| nra| ara| rc| nrc>] parameter (optional)
- [writepolicy=<wb| wt| wc| nwc | fwb>] parameter (optional)
- [cachepolicy=<d | c>] parameter (optional)
- [diskcachepolicy=<enabled|disabled>] parameter (optional)

Example Syntax

To change the read policy of virtual disk 4 on controller 1 to no-read-ahead, type:

```
omconfig storage vdisk action=changepolicy
controller=1 vdisk=4 readpolicy=nra
```

omconfig Replace Member Virtual Disk

Use the following **omconfig** command syntax to replace the member of a given virtual disk with the destination disk.

Complete Syntax

```
omconfig storage vdisk action=replacememberdisk
controller=id vdisk=id source=<PDISKID>
destination=<PDISKID>
```

where *id* is the controller ID and virtual disk ID. The **<PDISKID>** variable specifies the physical disk.

To obtain the values for the controller, virtual disk, and physical disk, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** and **omreport storage pdisk controller=ID** to display the IDs for the virtual disks and physical disks attached to the controller.

Example Syntax

In this example, you are replacing physical disk 3 on connector 0 of controller 1 of virtual disk 4 with physical disk 5. On a Serial Attached SCSI (SAS) controller, the physical disk resides in enclosure 2.

To replace the member disk described in this example:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage vdisk action=replacememberdisk
controller=1 vdisk=4 source=0:3 destination=0:5
```

- For SAS controllers:

```
omconfig storage vdisk action=replacememberdisk
controller=1 vdisk=4 source=0:2:3 destination=
0:2:5
```



NOTE: On a SAS controller, the physical disk resides in enclosure 2.

omconfig Rename Virtual Disk

Use the following **omconfig** command syntax to rename a virtual disk.

Complete Syntax

```
omconfig storage vdisk action=rename controller=id  
vdisk=id name=<string>
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command and <string> is the new name for the virtual disk. To obtain the values for controller ID and virtual disk ID, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To rename virtual disk 4 on controller 1 to vd4, type:

```
omconfig storage vdisk action=rename controller=1  
vdisk=4 name=vd4
```

omconfig Enable Fluid Cache on Virtual Disk

Use the following **omconfig** command syntax to enable fluid cache for the specified virtual disk.



NOTE: Enabling fluid cache creates a new fluid cache disk. You must use only the new fluid cache disk for all future data access. Data access to any of the corresponding virtual disk or caching its partitions may lead to data corruption.

Complete Syntax

```
omconfig storage vdisk action=enablefluidcache  
controller=id vdisk=id devicename=<string>  
cachepolicy= <wb | wt>
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command, <string> is the device name of the virtual disk, *wb* is writeback, and *wt* is writethrough. To obtain the values for controller ID and virtual disk ID, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To enable fluid cache on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=enablefluidcache  
controller=1 vdisk=4 devicename=/dev/sdb  
cachepolicy=wb
```

omconfig Disable Fluid Cache on Virtual Disk

Use the following **omconfig** command syntax to disable fluid cache for the specified virtual disk.

Complete Syntax

```
omconfig storage vdisk action=disablefluidcache  
controller=id vdisk=id devicename=<string>
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command, and <string> is the device name of the virtual disk. To obtain the values for controller ID and virtual disk ID, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To disable fluid cache on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=disablefluidcache  
controller=1 vdisk=4 devicename=/dev/sdb
```


omconfig Reactivate Fluid Cache on Virtual Disk

Use the following **omconfig** command syntax to reactivate the fluid cache for the specified virtual disk.

Complete Syntax

```
omconfig storage vdisk action=reactivate  
controller=id vdisk=id devicename=<string>
```

where *id* is the controller ID and virtual disk ID as reported by the **omreport** command, and *<string>* is the device name of the virtual disk. To obtain the values for controller ID and virtual disk ID, type **omreport storage controller** to display the controller IDs and then type **omreport storage vdisk controller=ID** to display the IDs for the virtual disks attached to the controller.

Example Syntax

To reactivate fluid cache on virtual disk 4 on controller 1, type:

```
omconfig storage vdisk action=reactivate controller=  
1 vdisk=4 devicename=/dev/sdb
```

omconfig Controller Commands

The following sections provide the **omconfig** command syntax required to execute controller tasks.


 **CAUTION:** The *omconfig storage controller action=resetconfig controller=id* resets the controller configuration. Resetting the controller configuration permanently destroys all data on all virtual disks attached to the controller. System or boot partition residing on these virtual disks is destroyed.

Table 8-4. omconfig Controller Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
--------------------------------------	---------------------------

omconfig storage controller	
--------------------------------	--

action=rescan controller=id
action=enablealarm controller=id
action=disablealarm controller=id
action=quietalarm controller=id

Table 8-4. omconfig Controller Commands (continued)

Required Command Levels **Optional name=value pairs**
(1, 2, 3)

```
action=testalarm controller=id
action=resetconfig controller=id [force=yes]
action=createvdisk controller=id raid=<c| r0| r1| r1c|
r5|r6| r10| r50|r60> size=<number | b | m |g |max |
min> pdisk=<PDISKID> [stripesize=< 2kb| 4kb| 8kb|
16kb| 32kb| 64kb| 128kb | 256kb | 512kb | 1mb >]
[cachepolicy=<d | c>] [readpolicy=<ra| nra| ara| rc|
nrc>] [writepolicy=<wb | wt | wc | nwc | fwb>]
[diskcachepolicy=<disabled | enabled>] [name=
<string>] [spanlength=<n>] | [secureflag=yes]
```

NOTE: For RAID 10 on SAS controllers with firmware version 6.1 and later, **spanlength** is an optional parameter (default=2.)

```
action=setrebuildrate controller=id rate=<0 to 100>
action=setchangecontrollerproperties controller=<id>
[bgirate=<rate>][reconstructrate=
<rate>][checkconsistencyrate=<rate>][rebuildrate=
<rate>][clearredundantpath=
clear][abortcheckconsistencyonerror=
<enabled/disabled>][loadbalance=
<auto/disabled>][allowrevertiblehotspareandreplacemem
ber=enabled/disabled]
[autoreplacememberonpredictivefailure=
<enabled/disabled>][persistenthotspare=
enabled/disabled]rate=<0 to 100>
action=discardpreservedcache controller=id force=
<enabled/disabled>
```

```
action=createsecuritykey controller=id keyid=<keyid>
passphrase=<passphrase string> [escrow=yes] [filepath=
<Absolute path to the escrow file>]
```

NOTE: If you set **escrow=yes**, specify the escrow file path.

```
action=changesecuritykey controller=id keyid=<keyid>
passphrase=<passphrase string> oldpassphrase=
<oldpassphrase string> [escrow=yes] [filepath=
<Absolute path to the escrow file>]
```

NOTE: If you set **escrow=yes**, specify the escrow file path.

```
action=deletesecuritykey controller=id
```

Table 8-4. omconfig Controller Commands (continued)

Required Command Levels **Optional name=value pairs**
(1, 2, 3)

action=setbgirate controller=id
rate=<0 to 100>
action=setreconstructrate controller=id
rate=<0 to 100>
action=setcheckconsistencyrate controller=id
rate=<0 to 100>
action=exportlog controller=id
action=importsecureforeignconfig controller=id
passphrase=<passphrase for imported foreign
configuration>
action=importforeignconfig controller=id
action=importrecoverforeignconfig controller=id
action=clearforeignconfig controller=id
action=setpdiskpwrmanagement controller=id
spindownunconfigureddrives=<enabled/disabled>
spindownhotspares=<enabled/disabled>
spindownconfigureddrives=<enabled/disabled>
idlec=<enabled/disabled> spindowntimeinterval=<30 to
1440> (minutes) spinupstarttime=<HH:MM:AM/PM>
spinuptimeinterval=<1 to 24> (hours)

NOTE: Specify **spinupstarttime** and **spinuptimeinterval** only when you set **spindownconfigureddrives=enabled**.

action=setpatrolreadmode controller=id
mode=<manual | auto | disable>
action=startpatrolread controller=id
action=stoppatrolread controller=id
action=createcachecade controller=id pdisk=
<PDISKID> [name=<string>]
action=enablelkm controller=id keyid=<keyid>
passphrase=<passphrase string> [escrow=yes] [filepath=
<Absolute path to the escrow file>]

NOTE: If you set **escrow=yes**, specify the escrow file path.

Table 8-4. omconfig Controller Commands (continued)

Required Command Levels (1, 2, 3)	Optional name=value pairs
	<pre>action=switchtolkm controller=id keyid=<keyid> passphrase=<passphrase string> [escrow=yes] [filepath= <Absolute path to the escrow file>]</pre> <p>NOTE: If you set escrow=yes, specify the escrow file path.</p> <pre>action=rekeylkm controller=id action=convertraidtononraid controller=id pdisk= <PDISKID> action=convertnonraidtoraid controller=id pdisk= <PDISKID></pre>

omconfig Rescan Controller

Use the following **omconfig** command syntax to rescan a controller. For more information, see the *Dell OpenManage Online Help*.

Complete Syntax

```
omconfig storage controller action=rescan
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To rescan controller 1, type:

```
omconfig storage controller action=rescan
controller=1
```



NOTE: The rescan controller is not supported on non-RAID SCSI and SAS controllers. Reboot the system to make the configuration changes visible on non-RAID SCSI controllers.

omconfig Enable Controller Alarm

Use the following **omconfig** command syntax to enable the controller alarm. See the *Dell OpenManage Online Help* for more information about Enable Controller Alarm.

Complete Syntax

```
omconfig storage controller action=enablealarm  
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To enable the alarm on controller 1, type:

```
omconfig storage controller action=enablealarm  
controller=1
```

omconfig Disable Controller Alarm

Use the following **omconfig** command syntax to disable the controller alarm. See the *Dell OpenManage Online Help* for more information about Disable Controller Alarm.

Complete Syntax

```
omconfig storage controller action=disablealarm  
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To disable the alarm on controller 1, type:

```
omconfig storage controller action=disablealarm  
controller=1
```

omconfig Quiet Controller Alarm

Use the following **omconfig** command syntax to silence an activated controller alarm. For more information, see the *Dell OpenManage Online Help*.

Complete Syntax

```
omconfig storage controller action=quietalarm  
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To quiet the alarm on controller 1, type:

```
omconfig storage controller action=quietalarm  
controller=1
```

omconfig Test Controller Alarm

Use the following **omconfig** command syntax to test the functionality of the controller alarm. The alarm sounds for about two seconds. See the *Dell OpenManage Online Help* for more information about Test Controller Alarm.

Complete Syntax

```
omconfig storage controller action=testalarm  
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.


Example Syntax

To test the alarm on controller 1, type:

```
omconfig storage controller action=testalarm  
controller=1
```

omconfig Reset Controller Configuration

Use the following `omconfig` command syntax to reset the controller configuration.

 **CAUTION: Resetting a configuration permanently destroys all data on all virtual disks attached to the controller. System or boot partition residing on these virtual disks is destroyed. You may receive a warning message if this command results in deleting the system or boot partition. However, this warning message is not generated always. Ensure that you do not delete the system or boot partition or other vital data when using this command.**

Complete Syntax

```
omconfig storage controller action=resetconfig  
controller=id
```

where *id* is the controller ID as reported by the `omreport storage controller` command.

In some circumstances, you may receive a warning message if this command deletes the system or boot partition. You can override this warning by using the `force=yes` parameter. In this case, the syntax is as follows:

```
omconfig storage controller action=resetconfig  
controller=id force=yes
```

Example Syntax

To reset the configuration on controller 1, type:

```
omconfig storage controller action=resetconfig  
controller=1
```

omconfig Create Virtual Disk

The *Dell OpenManage Online Help* provides additional information about creating virtual disks.

The `omconfig` syntax for creating a virtual disk has several parameters. You must specify the following parameters:

- Controller (`controller=id`)
- RAID level (`raid=<c| r0| r1| r1c| r5|r6| r10| r50|r60>`)
- Size (`size=<number | max | min>`)

Physical disk is specified as either:

- For SCSI, SATA, and ATA controllers:

pdisk=connector:enclosureID:targetID

where *connector:enclosureID:targetID* is the connector number, enclosure number, and slot number.

For example *pdisk=0:1:2*

- For SAS controllers:

pdisk=connector:targetID

where *connectorID:targetID* is the connector number and the slot number.

For example: *pdisk=0:2*

Storage Management supplies default values for any of the other parameters that you do not specify.

For creating an encrypted virtual disk, specify **secureflag=yes**. You can create encrypted virtual disks only with SED drives.

Complete Syntax

```
omconfig storage controller action=createvdisk
controller=id raid=<c| r0| r1| r1c| r5| r6| r10| r50
|r60> size=<number | max | min> pdisk=<PDISKID>
[stripesize=< 2kb| 4kb| 8kb| 16kb| 32kb| 64kb|
128kb>] [cachepolicy=<d | c>] [diskcachepolicy=
<disabled | enabled>] [readpolicy=<ra | nra | ara |
rc | nrc>] [writepolicy=<wb| wt| wc| nwc | fw>]
[name=<string>] [spanlength=<n>] | [secureflag=yes]
```



NOTE: If you are configuring RAID for SAS controllers with firmware version 6.1 and later, **spanlength** is an optional parameter (default=2). **Spanlength** is an even number and is lesser than or equal to half the number of physical disks specified in **size**.

Parameter Specification for Create and Reconfigure Virtual Disk

The following sections indicate how to specify the **omconfig storage controller action=createvdisk** parameters.

controller=id Parameter (Required)

raid=<c| r0| r1| r1c| r5| r6| r10| r50| r60> parameter (required)

size=<number | max | min> parameter (required)
 pdisk=<connector:targetID,connector:targetID,.....> parameter (required)
 [stripesize=< 2kb | 4kb | 8kb | 16kb | 32kb | 64kb | 128kb>] parameter (optional)
 [cachepolicy=<d | c>] parameter (optional)
 [readpolicy=<ra | nra | ara | rc | nrc>] parameter (optional)
 [writepolicy=<wb | wt | wc | nwc | fwb>] parameter (optional)
 [name=<string>] parameter (optional)
 [spanlength=<n>] parameter (optional)

controller=id Parameter (Required)

Specify the controller ID as reported by the **omreport storage controller** command. For example:

```
controller=2
```

raid=<c | r0 | r1 | r1c | r5 | r6 | r10 | r50 | r60> Parameter (Required)

Use the **raid=<c | r0 | r1 | r1c | r5 | r6 | r10 | r50 | r60>** parameter to specify concatenation or a RAID level for a virtual disk. Different controllers support different RAID levels. See the *Dell OpenManage Online Help* for more information about RAID levels a controller supports and for general information about RAID levels and concatenation. Table 8-5 indicates how to specify the **raid=n** parameter for each RAID level and concatenation.

Table 8-5. Raid Level and Concatenation

RAID Level or Concatenation	raid=n Parameter Specification
RAID-0	raid=r0
RAID-1	raid=r1
RAID-5	raid=r5
RAID-6	raid=r6
RAID-10	raid=r10
RAID-50	raid=r50
RAID-60	raid=r60
RAID-1-concatenated	raid=r1c
Concatenation	raid=c

size=<number | max | min> Parameter (Required)

Table 8-6 indicates how to specify the **size=<number | max | min>** parameter.

Table 8-6. Size Parameter

size=<number max min> Parameter Specification	Description
size=<n>	Use this specification to indicate a specific size for the virtual disk. The virtual disk size is specified in b (bytes), m (megabytes), or g (gigabytes). For example, size=500m indicates that the virtual disk is 500 MB.
size=max	To create a virtual disk that is the maximum size possible, specify size=max . When creating a RAID-50 virtual disk, this parameter is specified as size=max .
size=min	To create a virtual disk that is the minimum size possible, specify size=min .

PDISKID=<connector:enclosureID:targetID | connector:targetID>

Use this parameter to specify the physical disks to be included in the virtual disk.

When reconfiguring a virtual disk, you must specify all physical disks to include in the reconfigured virtual disk. The physical disk specification applies to physical disks in the original virtual disk and continues in the reconfigured virtual disk and to any new physical disks being added to the reconfigured virtual disk. Some controllers allow you to remove a physical disk from a virtual disk. In this case, do not specify to remove the physical disk.

The **pdisk=<PDISKID>** parameter indicates a physical disk by specifying either **connector:enclosureID:targetID** or **connector:targetID**.

stripesize=<2kb| 4kb| 8kb| 16kb| 32kb| 64kb| 128kb>] Parameter (Optional)

Different controllers support different stripe sizes. See the *Dell OpenManage Online Help* for more information on stripe sizes supported for a controller. All stripe sizes are specified in kilobytes. For example, when specifying 128 KB as the stripe size, type:

```
stripesize=128kb
```

[cachepolicy=<d | c>] Parameter (Optional)

Different controllers support different cache policies. Table 8-7 indicates how to specify the [cachepolicy=<d | c>] parameter for each of the cache policies.

Table 8-7. Cache Policy Parameters

Cache Policy	cachepolicy=d c Parameter Specification
Direct I/O	cachepolicy=d
Cache I/O	cachepolicy=c

[diskcachepolicy=<disabled | enabled>] Parameter (Optional)

Different controllers support different disk cache policies. The following table indicates how to specify the [diskcachepolicy=<disabled | enabled>] parameter for each of the cache policies.

Table 8-8. Disk Cache Policy Parameters

Disk Cache Policy	diskcachepolicy=disabled enabled Parameter Specification
Disabled	diskcachepolicy=disabled
Enabled	diskcachepolicy=enabled

[readpolicy=<ra | nra | ara | rc | nrc>] Parameter (Optional)

Different controllers support different read policies. Table 8-9 indicates how to specify the [readpolicy=<ra | nra | ara | rc | nrc>] parameter for each of the read policies.

Table 8-9. Read Policy Parameters

Read Policy	readpolicy=ra ara nra rc nrc Parameter Specification
Read ahead	readpolicy=ra
Adaptive read ahead	readpolicy=ara
No read ahead	readpolicy=nra
Read cache	readpolicy=rc
No read cache	readpolicy=nrc

[writepolicy=<wb| wt| wc| nwc>] Parameter (Optional)

Different controllers support different write policies. Table 8-10 indicates how to specify the [writepolicy=<wb| wt| wc| nwc | fwb>] parameter for each of the write policies.

Table 8-10. Write Policy Parameters

Write Policy	writepolicy=wb wt wc fwb nwc Parameter Specification
Write-back cache	writepolicy=wb
Write-through cache	writepolicy=wt
Write cache	writepolicy=wc
Force write back	writepolicy=fwb
No write cache	writepolicy=nwc

[name=<string>] Parameter (Optional)

Use this parameter to specify a name for the virtual disk. For example:

```
name=VirtualDisk1
```

[spanlength=<n>] Parameter (Required for RAID 50 and RAID 60 and optional for RAID 10)

Use this parameter to specify the number of physical disks in each stripe. This parameter applies only to RAID-50 virtual disks. If you are not creating a RAID-50 virtual disk, do not specify this parameter. For example:

```
spanlength=3
```

For RAID 10 on SAS controllers with firmware version 6.1 and later, spanlength is optional. Also, you can now specify the spanlength as an even number with a maximum of 8 spans with 32 physical disks each. For example,

```
omconfig storage controller action=createvdisk  
controller=1 raid=r10 size=min pdisk=  
1:1:0,1:1:1,1:1:3,1:1:4,1:1:6,1:1:7,1:1:8,1:1:9  
spanlength=4
```

Example Syntax

You can create a RAID-5 virtual disk of 500MB with a stripe size of 16 KB on a PERC 3/QC controller. The name of the virtual disk is `vd1` and it resides on connector 0 of controller 1. Because the virtual disk is a RAID-5, it requires at least three physical disks. In this example, you specify four physical disks. These are physical disks 0 through 3. The virtual disk has read-ahead, write-through caching, and cache I/O policies.

To create a virtual disk:

```
omconfig storage controller action=createvdisk
controller=1 raid=r5 size=500m pdisk=
0:0,0:1,0:2,0:3 stripesize=16kb cachepolicy=c
readpolicy=ra writepolicy=wt
```

The only parameters that require specification are for the controller, RAID level, virtual disk size, and physical disk selection. Storage Management supplies default values for all other unspecified parameters. For more information on read, write, and cache policies are supported by the controller, see the *Dell OpenManage Online Help*.

omconfig Set Controller Rebuild Rate

Use the following `omconfig` command syntax to set the controller rebuild rate:

Complete Syntax

```
omconfig storage controller action=setrebuildrate
controller=id rate=<0 to 100>
```

where *id* is the controller ID as reported by the `omreport storage controller` command.

Example Syntax

To set the rebuild rate to 50 on controller 1, type:

```
omconfig storage controller action=setrebuildrate
controller=1 rate=50
```

omconfig Change Controller Properties

Use the following **omconfig** command to change any or all of the following controller properties.

Complete Syntax

```
omconfig storage controller action=
setchangecontrollerproperties controller=<id>
bgrate=<rate> reconstructrate=<rate>
checkconsistencyrate=<rate> rebuildrate=<rate>
clearredundantpath=clear
abortcheckconsistencyonerror=<enabled | disabled>
loadbalance=<auto | disabled>
allowrevertiblehotspareandreplacemember=<enabled
| disabled> autoreplacememberonpredictivefailure=
<enabled | disabled> persistenthotspare=<enabled |
disabled>
```

Example Syntax

To enable allow revertible hot spare and replace member operation, type:

```
omconfig storage controller action=
setchangecontrollerproperties allowrevertiblehotspare
andreplacemember=enabled controller=1
```

omconfig Discard Preserved Cache

Use the following **omconfig storage** command syntax to discard the preserved cache on the controller.



NOTE: To check if the controller has a preserved cache, type `omreport storage controller controller=id`. If the system displays `Preserved Cache=yes`, it indicates the presence of the preserved cache.

Complete Syntax

```
omconfig storage controller action=
discardpreservedcache controller=id force=enabled
| disabled
```

If you set `force=enabled`, the cache is discarded irrespective of whether the controller detects a foreign or an offline virtual disk.

Example Syntax

To discard the preserved cache, type:

```
omconfig storage controller action=
discardpreservedcache controller=1 force=enabled
```



CAUTION: Discarding the preserved cache can result in data loss. It is recommended that you run this command using the *force=disabled* option.



NOTE: If a foreign configuration is detected, then the preceding command using **force=disabled** option fails. To avoid data loss, import the foreign configuration and flush the preserved cache to disk. To discard preserved cache forcefully, either clear the foreign configuration and run the proceeding command, or run the proceeding command using **force=enabled** option.

omconfig Create Encryption Key

Use the following **omconfig storage** command syntax to create the encryption key for the controller.

Complete Syntax

```
omconfig storage controller action=
createsecuritykey controller=id keyid=<keyid
string> passphrase=<passphrase string> [escrow=
yes] [filepath=<Absolute path to the escrow file>]
```

Example Syntax

To create the encryption key for the controller, type:

```
omconfig storage controller action=
createsecuritykey controller=1 keyid=Dell_123
passphrase=Dell_123 escrow=yes filepath=
C:/escrow.xml
```



NOTE: If you set **escrow=yes**, specify the escrow file path.

omconfig Change Encryption Key

Use the following **omconfig storage** command syntax to change the encryption key for the controller, if passphrase is provided.

Complete Syntax

```
omconfig storage controller action=
changesecuritykey controller=id keyid=<keyid
string> passphrase=<passphrase string>
oldpassphrase=<old passphrase string>[escrow=yes]
[filepath=<Absolute path to the escrow file>]
```

Example Syntax

To change the encryption key for the controller, type:

```
omconfig storage controller action=
changesecuritykey controller=1 keyid=Dell_123
passphrase=Dell_123 oldpassphrase=Dell_321 escrow=
yes filepath=C:/escrow.xml
```



NOTE: If you set **escrow=yes**, specify the escrow file path.

omconfig Delete Encryption Key

Use the following **omconfig** command syntax to delete the encryption key for the controller.

Complete Syntax

```
omconfig storage controller action=
deletesecuritykey controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To delete the security key on controller 1, type:

```
omconfig storage controller action=
deletesecuritykey controller=1
```

omconfig Set Background Initialization Rate

Use the following **omconfig** command syntax to set the background initialization rate.

Complete Syntax

```
omconfig storage controller action=setbgirate  
controller=id rate=<0 to 100>
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To set the background initialization rate to 50 on controller 1, type:

```
omconfig storage controller action=setbgirate  
controller=1 rate=50
```

omconfig Set Reconstruct Rate

Use the following **omconfig** command syntax to set the reconstruct rate.

Complete Syntax

```
omconfig storage controller action=  
setreconstructrate controller=id rate=<0 to 100>
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To set the reconstruct rate to 50 on controller 1, type:

```
omconfig storage controller action=  
setreconstructrate controller=1 rate=50
```

omconfig Set Check Consistency Rate

Use the following **omconfig** command syntax to set the check consistency rate.

Complete Syntax

```
omconfig storage controller action=  
setcheckconsistencyrate controller=id rate=<0 to  
100>
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To set the check consistency rate to 50 on controller 1, type:

```
omconfig storage controller action=  
setcheckconsistencyrate controller=1 rate=50
```

omconfig Export the Controller Log

Use the following **omconfig** command syntax to export the controller log to a text file. See the *Dell OpenManage Online Help* for more information about the exported log file.

Complete Syntax

```
omconfig storage controller action=exportlog  
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To export the log on controller 1, type:

```
omconfig storage controller action=exportlog  
controller=1
```

By default, the log file is exported to **C:\WINNT** or **C:\Windows** on Microsoft Windows systems (based on the Windows version used) and **/var/log** on all Linux systems.

Depending on the controller, the log file name is `afa_<mmdd>.log` or `lsi_<mmdd>.log` where `<mmdd>` is the month and date. See the *Dell OpenManage Online Help* for more information on the controller log file.



NOTE: The export log file command is not supported on the 4/IM, CERC ATA, and 100/4ch controllers.

omconfig Import Secure Foreign Configuration

Use the following `omconfig` command syntax to unlock the encrypted Local Key Management (LKM) foreign configuration drives.

Complete Syntax

```
omconfig storage controller action=
importsecureforeignconfig controller=id
passphrase=<passphrase string for the foreign
configuration>
```

where `id` is the controller ID as reported by the `omreport storage controller` command.

Example Syntax

To unlock the encrypted LKM configuration drives on controller 1, type:

```
omconfig storage controller action=
importsecureforeignconfig controller=1 passphrase=
Dell_123
```

omconfig Import Foreign Configuration

Use the following `omconfig` command syntax to import all virtual disks that reside on physical disks newly attached to the controller.

Complete Syntax

```
omconfig storage controller action=
importforeignconfig controller=id
```

where `id` is the controller ID as reported by the `omreport storage controller` command.



NOTE: This command is supported only in firmware version 5.0.x.

Example Syntax

To import foreign configurations on controller 1, type:

```
omconfig storage controller action=
importforeignconfig controller=1
```

omconfig Import or Recover Foreign Configuration

Use the following **omconfig** command syntax to import and recover all virtual disks that reside on physical disks newly attached to the controller.

Complete Syntax

```
omconfig storage controller action=
importrecoverforeignconfig controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.



NOTE: This command is supported only on firmware version 5.1.1.

Example Syntax

To import and recover foreign configurations on controller 1, type:

```
omconfig storage controller action=
importrecoverforeignconfig controller=1
```

omconfig Clear Foreign Configuration

Use the following **omconfig** command syntax to clear or delete all virtual disks that reside on physical disks newly attached to the controller.

Complete Syntax

```
omconfig storage controller action=
clearforeignconfig controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To clear foreign configurations on controller 1, type:

```
omconfig storage controller action=
clearforeignconfig controller=1
```

omconfig Physical Disk Power Management

Use the following **omconfig** command syntax for managing the power of physical disks in a controller by spinning down hot spares, configured drives, and unconfigured drives.

Complete Syntax

```
omconfig storage controller action=
setdiskpwrmanagement spindownunconfigureddrives=
<enabled | disabled> spindownhotspares=<enabled |
disabled> spindownconfigureddrives=<enabled |
disabled> idlec=<enabled | disabled>
spindowntimeinterval=<30 to 1440>(minutes)
spinupstarttime=<HH:MM:AM/PM> spinuptimeinterval=
<1 to 24>(hours)
```

where *id* is the controller ID as reported by the **omreport storage controller** command.



NOTE: On PERC 7 controllers, only **spindownunconfigureddrives**, **spindownhotspares**, and **spindowntimeinterval** parameters are supported.



NOTE: You can specify **spinupstarttime** and **spinuptimeinterval** only when you set **spindownconfigureddrives=enabled**.

Example Syntax

To spin down drives that are not configured or hot spares that are unattended for 30 minutes, type:

```
omconfig storage controller action=
setdiskpwrmanagement spindownunconfigureddrives=
enabled spindownhotspares=enabled
spindowntimeinterval=30 controller=1
```

omconfig Set Patrol Read Mode

Use the following **omconfig** command syntax to set the patrol read mode for the controller.

Complete Syntax

```
omconfig storage controller action=  
setpatrolreadmode controller=id mode=  
manual|auto|disable
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To set the patrol read on controller 1 to manual mode, type:

```
omconfig storage controller action=  
setpatrolreadmode controller=1 mode=manual
```

omconfig Start Patrol Read

Use the following **omconfig** command syntax to start the patrol read task on the controller.

Complete Syntax

```
omconfig storage controller action=startpatrolread  
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To start the patrol read task on controller 1, type:

```
omconfig storage controller action=startpatrolread  
controller=1
```



NOTE: To start patrol read, the current patrol read mode is set to Manual.

omconfig Stop Patrol Read

Use the following **omconfig** command syntax to stop the patrol read task on the controller.

Complete Syntax

```
omconfig storage controller action=stoppatrolread
controller=id
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To stop the patrol read task on controller 1, type:

```
omconfig storage controller action=stoppatrolread
controller=1
```



NOTE: To stop patrol read, the current patrol read mode is set to Manual.

omconfig Create Cachecade

Use the following **omconfig storage** command syntax to create a cachecade on the given controller.

Complete Syntax

```
omconfig storage controller action=createcachecade
controller=id pdisk=<PDISKID> [name=<string>]
```

where *id* is the controller ID as reported by the **omreport storage controller** command and **PDISKID** is specified as:

```
pdisk=connector:enclosureID:targetID |
connector:targetID
```

Example Syntax

To create a cachecade on controller 0, type:

```
omconfig storage controller action=createcachecade
controller=0 pdisk=0:2:3 name=Cachecade1
```

omconfig Enable LKM Controller

Use the following **omconfig storage** command syntax to enable the LKM mode and create the encryption key for the controller.

Complete Syntax

```
omconfig storage controller action=enablelkm
controller=id keyid=<keyid string> passphrase=
<passphrase string> [escrow=yes] [filepath=
<Absolute path to the escrow file>]
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To create the encryption key for the controller, type:

```
omconfig storage controller action=enablelkm
controller=1 keyid=Dell_123 passphrase=Dell_123
escrow= yes filepath=C:/escrow.xml
```



NOTE: If you set **escrow=yes**, specify the escrow file path.

omconfig Rekey LKM Controller

Use the following **omconfig storage** command syntax to re-key the encryption key in LKM mode for the controller.

Complete Syntax

```
omconfig storage controller action=rekeylkm
controller=id keyid=<keyid> passphrase=
<passphrase string> escrow=yes filepath=<Absolute
path to the escrow file>
```

where *id* is the controller ID as reported by the **omreport storage controller** command.

Example Syntax

To re-key the encryption key for the controller, type:

```
omconfig storage controller action=rekeylkm
controller=1
```


omconfig Convert Multiple RAID to Non-RAID

Use the following **omconfig storage** command syntax to convert multiple RAID to non-RAID on the given controller.

Complete Syntax

```
omconfig storage controller action=  
convertraidtononraid controller=id pdisk=<PDISKID>
```

where *id* is the controller ID as reported by the **omreport storage controller** command and **PDISKID** is specified as:

```
pdisk=connector:enclosureID:targetID |  
connector:targetID
```

Example Syntax

To convert multiple RAID to non-RAID on the controller 0, type:

```
omconfig storage controller action=  
convertraidtononraid controller=0 pdisk=0:2:3
```

omconfig Convert Multiple Non-RAID to RAID

Use the following **omconfig storage** command syntax to convert multiple non-RAID to RAID on the given controller.

Complete Syntax

```
omconfig storage controller action=  
convertnonraidtoraid controller=id pdisk=<PDISKID>
```

where *id* is the controller ID as reported by the **omreport storage controller** command and **PDISKID** is specified as:

```
pdisk=connector:enclosureID:targetID |  
connector:targetID
```

Example Syntax

To convert multiple non-RAID to RAID on controller 0, type:

```
omconfig storage controller action=  
convertnonraidtoraid controller=0 pdisk=0:2:3
```

Omconfig Enclosure Commands

The following sections provide the **omconfig** command syntax required to execute enclosure tasks.

Table 8-11. omconfig Enclosure Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage enclosure	<pre>action=enablealarm controller=id enclosure= <ENCLOSUREID> action=disablealarm controller=id enclosure= <ENCLOSUREID> action=setassettag controller=id enclosure= <ENCLOSUREID> assettag= <string> action=setassetname controller=id enclosure= <ENCLOSUREID> assetname= <string> action=settempprobes controller=id enclosure= <ENCLOSUREID> index=id minwarn=n maxwarn=n action=resettempprobes controller=id enclosure= <ENCLOSUREID> index=id action=setalltempprobes controller=id enclosure= <ENCLOSUREID> minwarn=n maxwarn=n action=resetalltempprobes controller=id enclosure= <ENCLOSUREID> action=blink controller=id enclosure= <ENCLOSUREID></pre>

omconfig Enable Enclosure Alarm

Use the following **omconfig** command syntax to enable the enclosure alarm:

Complete Syntax

```
omconfig storage enclosure action=enablealarm  
controller=id enclosure=<ENCLOSUREID>
```

where *id* is the controller ID. The <ENCLOSUREID> variable specifies the enclosure.

Example Syntax

To enable the alarm on the enclosure attached to connector 2 on controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage enclosure action=enablealarm  
controller=1 enclosure=2
```

- For SAS controllers:

```
omconfig storage enclosure action=enablealarm  
controller=1 enclosure=1:2
```

omconfig Disable Enclosure Alarm

Use the following **omconfig** command syntax to disable the enclosure alarm.

Complete Syntax

```
omconfig storage enclosure action=disablealarm  
controller=id enclosure=<ENCLOSUREID>
```

where *id* is the controller ID. The <ENCLOSUREID> variable specifies the enclosure.

Example Syntax

To disable the alarm on enclosure 2 attached to connector 1 on controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage enclosure action=disablealarm  
controller=1 enclosure=2
```
- For SAS controllers:

```
omconfig storage enclosure action=disablealarm  
controller=1 enclosure=1:2
```

omconfig Set Enclosure Asset Tag

Use the following **omconfig** command syntax to specify the enclosure's asset tag:

Complete Syntax

```
omconfig storage enclosure action=setassettag  
controller=id enclosure=<ENCLOSUREID> assettag=  
<string>
```

where *id* is the controller ID. The **<ENCLOSUREID>** variable specifies the enclosure.

In this syntax, **<string>** is a user-specified alphanumeric string.

Example Syntax

To specify the asset tag to encl20 on the enclosure attached to connector 2 on controller:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage enclosure action=setassettag  
controller=1 enclosure=2 assettag=encl20
```
- For SAS controllers:

```
omconfig storage enclosure action=setassettag  
controller=1 enclosure=1:2 assettag=encl20
```

omconfig Set Enclosure Asset Name

Use the following **omconfig** command syntax to specify the asset name for an enclosure.

Complete Syntax

```
omconfig storage enclosure action=setassetname  
controller=id enclosure=<ENCLOSUREID> assetname=  
<string>
```

where *id* is the controller ID. The <ENCLOSUREID> variable specifies the enclosure.

In this syntax, <string> is a user-specified alphanumeric string.

Example Syntax

To specify the asset name to encl43 for the enclosure attached to connector 2 on controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage enclosure action=setassetname  
controller=1 enclosure=2 assetname=encl43
```

- For SAS controllers:

```
omconfig storage enclosure action=setassetname  
controller=1 enclosure=1:2 assetname=encl43
```

omconfig Set Temperature Probe Thresholds

Use the following **omconfig** command syntax to set the minimum and maximum warning temperature thresholds for a specified temperature probe.



NOTE: This command is not supported on SAS controllers.

Complete Syntax

```
omconfig storage enclosure action=settempprobes  
controller=id enclosure=<ENCLOSUREID> index=id  
minwarn=n maxwarn=n
```

where *id* is the controller ID and the temperature probe ID. The **<ENCLOSUREID>** variable specifies the enclosure.

In this syntax, *n* is a user-specified value for the temperature in Celsius.

Example Syntax

To set the temperature probe thresholds to 10 and 40 degree Celsius:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage enclosure action=settempprobes  
controller=1 enclosure=2 index=3 minwarn=10  
maxwarn=40
```



NOTE: Here, temperature probe 3 resides in the enclosure attached to connector 2 on controller 1.

omconfig Reset Temperature Probe Thresholds

Use the following **omconfig** command syntax to reset the minimum and maximum warning temperature thresholds back to their default values.



NOTE: This command is not supported on SAS controllers.

Complete Syntax

```
omconfig storage enclosure action=resettempprobes  
controller=id enclosure=<ENCLOSUREID> index=id
```

where *id* is the controller ID and the temperature probe ID. The **<ENCLOSUREID>** variable specifies the enclosure.

Example Syntax

To reset the thresholds for temperature probe 3, residing in the enclosure attached to connector 2 on controller 1, to the default values:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage enclosure action=resettempres  
controller=1 enclosure=2 index=3
```



NOTE: Here, temperature probe 3 resides in the enclosure attached to connector 2 on controller 1.

omconfig Set All Temperature Probe Thresholds

Use the following **omconfig** command syntax to set the minimum and maximum warning temperature thresholds for all temperature probes in the enclosure.



NOTE: This command is not supported on SCSI RAID controllers.

Complete Syntax

```
omconfig storage enclosure action=setalltempres  
controller=id enclosure=<ENCLOSUREID> minwarn=n  
maxwarn=n
```

where *id* is the controller ID. The <ENCLOSUREID> variable specifies the enclosure.

Example Syntax

To set the thresholds for all temperature probes residing in enclosure 3 attached to connector 2 on controller 1, to 10 and 40 degree Celsius:

- For SAS controllers:

```
omconfig storage enclosure action=setalltempres  
controller=1 enclosure=2:3 minwarn=10 maxwarn=40
```

omconfig Reset All Temperature Probe Thresholds

Use the following **omconfig** command syntax to reset the minimum and maximum warning temperature thresholds back to their default value for all temperature probes in the enclosure.



NOTE: This command is not supported on SCSI RAID controllers.

Complete Syntax

```
omconfig storage enclosure action=
resetalltempres controller=id enclosure=
<ENCLOSUREID>
```

where *id* is the controller ID. The **<ENCLOSUREID>** variable specifies the enclosure.

Example Syntax

To reset the thresholds for all temperature probes in enclosure 3 attached to connector 2 on controller 1:

- For SAS controllers:

```
omconfig storage enclosure action=
resetalltempres controller=1 enclosure=2:3
```

omconfig Blink

Use the following **omconfig** command to blink the light-emitting diodes (LEDs) on the enclosure.

Complete Syntax

```
omconfig storage enclosure action=blink
controller=id enclosure=<ENCLOSUREID>
```

where *id* is the controller ID. The **<ENCLOSUREID>** variable specifies the enclosure.

Example Syntax

To blink the LEDs for enclosure 3 attached to connector 2 on controller 1:

- For SCSI, SATA, and ATA controllers:
`omconfig storage enclosure action=blink
controller=1 enclosure=2`
- For SAS controllers:
`omconfig storage enclosure action=blink
controller=1 enclosure=2:3`

omconfig Battery Commands

The following sections provide the **omconfig** command syntax required to execute battery tasks.

Table 8-12. omconfig Battery Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage battery	action=startlearn controller=id battery=id action=delaylearn controller=id battery=id days=d hours=h

omconfig Start Battery Learn Cycle

Use the following **omconfig** command to start the battery learn cycle.

Complete Syntax

```
omconfig storage battery action=startlearn  
controller=id battery=id
```

where *id* is the controller ID and battery ID as reported by the **omreport** command. To obtain this value, type **omreport storage controller** to display the controller IDs and then type **omreport storage battery controller=ID** to display the ID for the controller battery.

Example Syntax

To start the learn cycle on controller 1, type:

```
omconfig storage battery action=startlearn  
controller=1 battery=0
```

omconfig Delay Battery Learn Cycle

Use the following **omconfig** command to delay the battery learn cycle for a specified period of time. You can delay the battery learn cycle for a maximum of seven days or 168 hours.

Complete Syntax

```
omconfig storage battery action=delaylearn  
controller=id battery=id days=d hours=h
```

where *id* is the controller ID and battery ID as reported by the **omreport** command. To obtain this value, type **omreport storage controller** to display the controller IDs and then type **omreport storage battery controller=ID** to display the ID for the controller battery.

Example Syntax

To delay the learn cycle for three days and 12 hours on controller 1, type:

```
omconfig storage battery action=delaylearn  
controller=1 battery=0 days=3 hours=12
```

omconfig Global Commands

The following sections provide the **omconfig** command syntax required to execute the global commands. When executed, these commands apply to all controllers. These global commands also correspond to the global tasks provided by the Storage tree view object's **Information/Configuration** subtab.

Table 8-13. omconfig Global Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage globalinfo	action=enablests action=disablests action=globalrescan action=setprotectionpolicies type=ghs or dhs

omconfig Global Enable Smart Thermal Shutdown

By default, the operating system and server shut down when the PV220S and PV221S enclosures reach a critical temperature of 0 or 50 degree Celsius. However, if you have implemented connector redundancy on the PV220S and PV221S enclosures you can specify that only the enclosure and not the operating system and server are shut down when the enclosure reaches a critical temperature of 0 or 50 degree Celsius. Specifying that only the enclosure is shut down during excessive temperatures is known as Smart Thermal Shutdown. See the *Dell OpenManage Online Help* for more information about Smart Thermal Shutdown.

Use the following **omconfig** command syntax to enable smart thermal shutdown.

Complete Syntax

```
omconfig storage globalinfo action=enablests
```

Example Syntax

The **omconfig** command syntax for enabling thermal shutdown does not require that you specify a controller or enclosure ID. To enable thermal shutdown, type the following:

```
omconfig storage globalinfo action=enablests
```



NOTE: You can use the **omreport storage globalinfo** command to determine whether smart thermal shutdown is currently enabled or disabled. The status of smart thermal shutdown is also displayed by the Server Administrator graphical user interface (GUI). To locate this status, select the **Storage** object and the **Information/Configuration** tab.

omconfig Global Disable Smart Thermal Shutdown

If you have previously enabled smart thermal shutdown using the **omconfig** command, you can disable smart thermal shutdown and return the system to its default setting. When smart thermal shutdown is disabled, the operating system and the server shuts down when the PV220S and PV221S enclosures reach a critical temperature of 0 or 50 degree Celsius.

Use the following **omconfig** command syntax to disable smart thermal shutdown for all controllers.

Complete Syntax

```
omconfig storage globalinfo action=disablests
```

Example Syntax

The **omconfig** command syntax for disabling thermal shutdown does not require that you specify a controller or enclosure ID. To disable thermal shutdown, type the following:

```
omconfig storage globalinfo action=disablests
```



NOTE: You can use the **omreport storage globalinfo** command to determine whether smart thermal shutdown is currently enabled or disabled. The status of smart thermal shutdown is also displayed in the GUI of Server Administrator. To locate this status, select the **Storage** object and the **Information/Configuration** tab.

omconfig Global Rescan Controller

Use the following **omconfig** command syntax to rescan all controllers on the system. See the *Dell OpenManage Online Help* for more information about Global Rescan Controller.

Complete Syntax

```
omconfig storage globalinfo action=globalrescan
```

Example Syntax

The **omconfig** command syntax for rescanning all controllers on the system does not require that you specify a controller ID. To do a global rescan of all controllers, type the following:

```
omconfig storage globalinfo action=globalrescan
```



NOTE: Global rescan is not supported on non-RAID SCSI and SAS controllers. Reboot the system to make visible the configuration changes on non-RAID SCSI controllers.

omconfig Set Hot Spare Protection Policy

Use the following **omconfig** command syntax to set the hot spare protection policy for dedicated or global hot spares. For more information, see the *Dell OpenManage Server Administrator Storage Management User's Guide*.

Complete Syntax

For dedicated hot spare protection policy, type:

```
omconfig storage globalinfo action=
setprotectionpolicies type=dhs raid=<r1 | r5 | r6
| r10 | r50 | r60 | all> hscount=<1-16> warnlevel=
<0-3>
```

where **hscount** is the number of hot spares assigned to the virtual disk and **warnlevel** is the severity level you want to assign to the generated alert, if this policy is violated. Use **hscount=0 warnlevel=0** to reset the dedicated hot spare protection policy for the RAID level.

For global hot spare protection policy, type:

```
omconfig storage globalinfo action=
setprotectionpolicies type=ghs hscount=<1-16>
warnlevel=<0-3> includeghsinvdstate=<yes | no>
```

where `hscount` is the number of hot spares assigned to the virtual disk and `warnlevel` is the severity level you want to assign to the generated alert, if this policy is violated. Use `hscount=0 warnlevel=0` to reset the global hot spare protection policy for the RAID level.

omconfig Connector Commands


The following sections provide the `omconfig` command syntax required to execute connector tasks.

Table 8-14. omconfig Connector Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage connector	action=rescan controller=id connector=id

omconfig Rescan Connector

Use the following `omconfig` command to rescan a controller connector. This command rescans all connectors on the controller and is therefore similar to performing a controller rescan.

 **NOTE:** This command is not supported on SAS controllers.

Complete Syntax

```
omconfig storage connector action=rescan
controller=id connector=id
```

where `id` is the controller ID and the connector ID as reported by the `omreport` command. To obtain these values, type `omreport storage controller` to display the controller IDs and then type `omreport storage connector controller=ID` to display the IDs for the connectors attached to the controller.

Example Syntax

To rescan connector 2 on controller 1, type:

```
omconfig storage connector action=rescan
controller=1 connector=2
```

omconfig Cachecade Commands

The following sections provide the **omconfig** command syntax required to execute cachecade tasks.

Table 8-15. omconfig Cachecade Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage cachecade	action=blink controller=id cachecade=id action=unblink controller=id cachecade=id action=deletecachecade controller=id cachecade=id [force=yes] action=resize controller=id cachecade=id pdisk= <PDISKID> action=rename controller=id cachecade=id name= <string>

omconfig Blink Cachecade

Use the following **omconfig** command syntax to blink the physical disks included in a cachecade.

Complete Syntax

```
omconfig storage cachecade action=blink
controller=id cachecade=id
```

where *id* is the controller ID and cachecade ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage cachecade controller=ID** to display the IDs for the cachecades of the controller.

Example Syntax

To blink the physical disk in cachecade 4 on controller 1, type:

```
omconfig storage cachecade action=blink  
controller=1 cachecade=4
```

omconfig Unblink Cachecade

Use the following **omconfig** command syntax to unblink the physical disks included in a cachecade.

Complete Syntax

```
omconfig storage cachecade action=unblink  
controller=id cachecade=id
```

where *id* is the controller ID and cachecade ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage cachecade controller=ID** to display the IDs for the cachecades of the controller.

Example Syntax

To unblink the physical disks in cachecade 4 on controller 1, type:

```
omconfig storage cachecade action=unblink  
controller=1 cachecade=4
```

omconfig Delete Cachecade

Use the following **omconfig** command syntax to delete a cachecade.

Complete Syntax

```
omconfig storage cachecade action=deletecachecade  
controller=id cachecade=id
```

where *id* is the controller ID and cachecade ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage cachecade controller=ID** to display the IDs for the cachecades of the controller.

In some circumstances, you may receive a warning message. You can override this warning by using the **force=yes** parameter. In this case, the syntax is as follows:

```
omconfig storage cachecade action=deletecachecade
controller=id cachecade=id force=yes
```

Example Syntax

To delete cachecade 4 on controller 1, type:

```
omconfig storage cachecade action=deletecachecade
controller=1 cachecade=4
```

omconfig Resize Cachecade

Use the following **omconfig** command syntax to resize a cachecade by adding or removing physical disks.

Complete Syntax

```
omconfig storage cachecade action=resize
controller=id cachecade=id pdisk=<PDISKID>
```

where *id* is the controller ID and cachecade ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage cachecade controller=ID** to display the IDs for the cachecades of the controller.

Example Syntax

To resize cachecade 4, use physical disks 0 through 3 on connector 0 of controller 1:

- For SCSI, SATA, and ATA controllers:

```
omconfig storage cachecade action=resize
controller=1 cachecade=4 pdisk=0:0,0:1,0:2,0:3
```

- For SAS controllers:

```
omconfig storage cachecade action=resize
controller=1 cachecade=4 pdisk=
0:2:0,0:2:1,0:2:2,0:2:3
```

omconfig Rename Cachecade

Use the following omconfig command syntax to rename a cachecade.

Complete Syntax

```
omconfig storage cachecade action=rename  
controller=id cachecade=id name=<string>
```

where *id* is the controller ID and cachecade ID as reported by the **omreport** command. To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage cachecade controller=ID** to display the IDs for the cachecades of the controller.

Example Syntax

To rename cachecade 4 on controller 1 to cc4, type:

```
omconfig storage cachecade action=rename  
controller=1 cachecade=4 name=cc4
```

omconfig PCIe SSD Commands

The following sections provide the **omconfig** command syntax required to execute PCIe SSD tasks.

Table 8-16. omconfig PCIe SSD Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage pciessd	action=addtocachepool subsystem=id pcidevice=<PDISKID> force=yes action=removefromcachepool subsystem=id pcidevice=<PDISKID> force=yes action=reactivate subsystem=id pcidevice=<PDISKID> force=yes

omconfig Add PCIe SSD Device to Cachepool

Use the following **omconfig** command syntax to add the specified PCIe SSD device to the cache pool.

Complete Syntax

```
omconfig storage pciessd action=addtocachepool  
subsystem=id pcidevice=<PDISKID>
```

where *id* is the subsystem ID and **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To add the specified PCIe SSD device to the cachepool, type:

```
omconfig storage pciessd action=addtocachepool  
subsystem=2 pcidevice=0:2:0 force=yes
```

omconfig Remove PCIe SSD Device From Cachepool

Use the following **omconfig** command syntax to remove the specified PCIe SSD device from the cache pool.

Complete Syntax

```
omconfig storage pciessd action=  
removefromcachepool subsystem=id pcidevice=  
<PDISKID>
```

where *id* is the subsystem ID and **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To remove the specified PCIe SSD device from the cachepool, type:

```
omconfig storage pciessd action=  
removefromcachepool subsystem=2 pcidevice=0:2:0  
force=yes
```

omconfig Reactivate PCIe SSD Device

Use the following **omconfig** command syntax to reactivate the specified PCIe SSD device that was part of the cache pool.

Complete Syntax

```
omconfig storage pciessd action=reactivate  
subsystem=id pcidevice=<PDISKID>
```

where *id* is the subsystem ID and **<PDISKID>** variable specifies the physical disk.

To obtain these values, type **omreport storage controller** to display the controller IDs and then type **omreport storage pdisk controller=ID** to display the IDs for the physical disks attached to the controller.

Example Syntax

To reactivate the specified PCIe SSD device, type:

```
omconfig storage pciessd action=reactivate  
subsystem=2 pcidevice=0:2:0 force=yes
```

omconfig Fluid Cache Commands

The following sections provide the **omconfig** command syntax required to execute fluid cache tasks.

Table 8-17. omconfig Fluid Cache Commands

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage fluidcache	action=applylicense licensefile= <filename> action=connect

omconfig Applying or Updating License to the Fluid Cache

Use the following **omconfig** command syntax to apply or upgrade the fluid cache license.

Complete Syntax

```
omconfig storage fluidcache action=applylicense  
licensefile=<filename with absolute path>
```

Example Syntax

```
omconfig storage fluidcache action=applylicense  
licensefile=/root/key/licensefile.xml
```

omconfig Connecting to the Fluid Cache

Use the following **omconfig** command syntax to connect to the fluid cache system and update the cache configuration details of the storage subsystem.

Complete Syntax

```
omconfig storage fluidcache action=connect
```

omconfig Partition Command

The following sections provide the **omconfig** command syntax required to execute partition task.

Table 8-18. omconfig Partition Command

Required Command Levels (1, 2, 3)	Optional name=value pairs
-----------------------------------	---------------------------

omconfig storage partition	
----------------------------	--

	action=refresh
--	----------------

omconfig Refreshing Partition List

Use the following **omconfig** command syntax to refresh the partition list maintained in the storage subsystem.

Complete Syntax

```
omconfig storage partition action=refresh
```

omconfig Fluid Cache Disk Command

The following sections provide the **omconfig** command syntax required to execute the fluid cache disk task.

Table 8-19. omconfig Fluid Cache Disk Command

Required Command Levels (1, 2, 3)	Optional name=value pairs
omconfig storage fluidcachedisk	action=disablewithdiscard fluidcachedisk= <string>

omconfig Discarding Data and Disabling Caching

Use the following **omconfig** command syntax to discard the data on the cache and disable caching on the specified fluid cache disk.

Complete Syntax

```
omconfig storage fluidcachedisk action=
disablewithdiscard fluidcachedisk=<string>
```

Example Syntax

```
omconfig storage fluidcachedisk action=
disablewithdiscard fluidcachedisk=fcd1
```

Working With CLI Command Results

Server Administrator Command Line Interface (CLI) users can use the command output in various ways. This section explains how to save command output to a file and how to select a format for the command results that fits different objectives.

Table 9-1. System Availability for the omreport Command

Command Level 1	Command Level 2	Applicable To
omreport	modularencllosure	Blade systems
	servermodule	Blade systems
	mainsystem	Blade systems
	system	Rack and Tower systems
	chassis	Rack and Tower systems

Output Options for Command Results

CLI command output displays to standard output on the system in a command window, in an X-terminal, or on a screen, depending on the type of the operating system.

You can redirect command results to a file instead of displaying them to standard output. Saving command output to a file allows you to use the command output for later analysis or comparison.

Whether you display command results to standard output or have the command results written to a file, you can format the results. The format you select determines the way the command output is displayed and the way the command output is written to a file.

Controlling Command Output Display

Each operating system provides a means of controlling the way that command results display to standard output. The following is a useful command for ensuring that command results do not scroll by before you can view them. The same command syntax works for the Microsoft Windows command prompt, the Red Hat Enterprise Linux terminal, and the SUSE

Linux Enterprise Server terminal. To display command output with control over scrolling, type the CLI command and append the pipe symbol followed by `more`. For example, type:

```
omreport system summary | more
```

or

```
omreport servermodule summary | more
```

The multiscreen system summary displays the first screen. When you want to see the next screen of command output, press the spacebar.

Writing Command Output to a File

When redirecting command results to a file, you can specify a filename (and a directory path if necessary) to which you want to write the command result. When specifying the path to which you want to write the file, use the syntax appropriate for the operating system.

You can save command results in two ways. You can overwrite any file that has the same name as the output file you specify, or you can keep adding results of commands to a file of the same name.

Saving Command Results to a File That is Overwritten

Use the `-outc` option when you want to overwrite data stored in previously written files. For example, at 11:00 A.M. you capture fan probe RPM readings for fan probe 0 on the system and write the results to a file called `fans.txt`. You type:

```
omreport chassis fans index=0 -outc fans.txt
```

or

```
omreport mainsystem fans index=0 -outc fans.txt
```


Partial results written to the file are:

```
Index                : 0
Status               : OK
Probe Name           : System Board Fan 1 RPM
Reading              : 2380RPM
Minimum Warning Threshold : 600RPM
Maximum Warning Threshold : 5700RPM
Minimum Failure Threshold : 500RPM
Maximum Failure Threshold : 6000RPM
```

Four hours later, you repeat the command. You have no interest in the 11:00 A.M. snapshot as written to **fans.txt**. You type the same command:

```
omreport chassis fans index=0 -outc fans.txt
```

or

```
omreport mainsystem fans index=0 -outc fans.txt
```

The 3:00 P.M. data overwrites the 11:00 A.M. data in the **fans.txt** file.

Fans.txt now reads as follows:

```
Index                : 0
Status               : OK
Probe Name           : System Board Fan 1 RPM
Reading              : 3001RPM
Minimum Warning Threshold : 700RPM
Maximum Warning Threshold : 5500RPM
Minimum Failure Threshold : 500RPM
Maximum Failure Threshold : 6000RPM
```

You cannot refer to the previous command results to compare the earlier fan probe 0 output with the present output because in using the **-outc** option, you overwrote the **fans.txt** file.

Append Command Results to an Existing File

Use the **-outa** option when you want to append new command results to data stored in a previously written file. For example, at 11:00 A.M. you capture fan probe RPM readings for fan probe 0 on the system and write the results to a

file called **fans.txt**. To compare these results with output for the same probe obtained four hours later, you can use the **-outa** command to append the new output to **fans.txt**.

Type:

```
omreport chassis fans index=0 -outa fans.txt
```

or

```
omreport mainsystem fans index=0 -outa fans.txt
```

Fans.txt now reads as follows:

```
Index                : 0
Status               : OK
Probe Name           : System Board Fan 1 RPM
Reading              : 2380RPM
Minimum Warning Threshold : 600RPM
Maximum Warning Threshold : 5700RPM
Minimum Failure Threshold : 500RPM
Maximum Failure Threshold : 6000RPM
```

```
Index                : 0
Status               : OK
Probe Name           : System Board Fan 1 RPM
Reading              : 3001RPM
Minimum Warning Threshold : 700RPM
Maximum Warning Threshold : 5500RPM
Minimum Failure Threshold : 500RPM
Maximum Failure Threshold : 6000RPM
```

You can use a text editor to insert the time that each block of data was captured. In comparing the two snapshots for fan probe 0, you can see that the second report shows several changes. The reading of fan RPM has been changed to 3001RPM but is still within normal range. Someone has raised the minimum warning threshold to 700 RPM and has decreased the maximum warning threshold to 5500 RPM.

Selecting a Format for the CLI Command Output

You can specify a format for the CLI command results. The format determines how the command output is displayed. If the command results are directed to a file, the format is captured by the file to which you write the command results. The available formats include:

- List (lst)
- Semicolon-separated values (ssv)
- Table (tbl)
- Custom delimited format (cdv)

The Syntax for the formatting option is:

```
<command> -fmt <format option>
```

For example, type:

```
omreport system summary -fmt tbl
```

or

```
omreport servermodule summary -fmt tbl
```

where **-fmt tbl** specifies table format.

You can combine the formatting option with the option to direct output to a file. For example, type:

```
omreport system summary -fmt tbl -outa summary.txt
```

or

```
omreport servermodule summary -fmt tbl -outa  
summary.txt
```

where **-fmt tbl** specifies table format and **-outa** specifies that you append the command results to a file called **summary.txt**.

List (lst)

The default format is **lst** or list format. Use this format when you want to optimize output for simple readability. You need to specify a format for the command output only if you want a format other than the **lst** format.

To see the following example command output in `lst` format, type:

```
omreport system summary

or

omreport servermodule summary
```

No special formatting option is required because list format is the default display format. The network data part of the example system summary is displayed as follows:

```
-----
Network Data
-----

Network Interface 0
IP Address: 143.166.152.108
Subnet Mask: 255.255.255.0
Default Gateway: 143.166.152.1
MAC Address: 00-02-b3-23-d2-ca
```

Table (tbl)

Use the `tbl` or `table` formatting option to have the data formatted in table rows and columns. To see the following example command output in table format, type:

```
omreport system summary -fmt tbl

or

omreport servermodule summary -fmt tbl
```

The example output displays as follows:

```
-----
Network Interface 0
-----

| ATTRIBUTE | VALUE
| IP Address | 143.166.152.108
| Subnet Mask | 255.255.255.0
| Default Gateway | 143.166.152.1
| MAC Address | 00-02-b3-23-d2-ca
```

Semicolon-separated Values (ssv)

Use the `ssv` formatting option to deliver output formatted in semicolon-separated value format. This format also allows you to import the command output results into a spreadsheet program such as Microsoft Excel, or into a database program. To see the following example command output in semicolon-separated value format, type:

```
omreport system summary -fmt ssv
```

or

```
omreport servermodule summary -fmt ssv
```

The example output displays as follows:

```
-----  
Network Data  
-----  
  
Network Interface 0  
IP Address;143.166.152.108  
Subnet Mask;255.255.255.0  
Default Gateway;143.166.152.1  
MAC Address;00-02-b3-23-d2-ca
```

Custom Delimited Format (cdv)

Use the `cdv` formatting option to report exported data in custom delimited format. You can specify this option with any **omreport** command. For example, to generate a system summary in custom delimited format, type:

```
omreport system summary -fmt cdv
```

or

```
omreport servermodule summary -fmt cdv
```

You can also set preferences for the custom delimited format with the **omconfig** command. The valid values for delimiters are: exclamation, semicolon, at, hash, dollar, percent, caret, asterisk, tilde, question, colon, comma, and pipe.

The following example shows how to set the delimiter for separating data fields to asterisk:

```
omconfig preferences cdvformat delimiter=asterisk
```


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