Dell™ OpenManage™

Server Administrator Version 6.1

Messages Reference 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.

April 2009

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Introduction

Dell™ OpenManage™ Server Administrator produces event messages stored primarily in the operating system or Server Administrator event logs and sometimes in SNMP traps. This document describes the event messages created by Server Administrator version 6.1 and displayed in the Server Administrator Alert log.

Server Administrator creates events in response to sensor status changes and other monitored parameters. The Server Administrator event monitor uses these status change events to add descriptive messages to the operating system event log or the Server Administrator Alert log.

Each event message that Server Administrator adds to the Alert log consists of a unique identifier called the event ID for a specific event source category and a descriptive message. The event message includes the severity, cause of the event, and other relevant information, such as the event location and the monitored item's previous state.

Tables provided in this guide list all Server Administrator event IDs in numeric order. Each entry includes the event ID's corresponding description, severity level, and cause. Message text in angle brackets (for example, *<State>*) describes the event-specific information provided by the Server Administrator.

What's New in this Release

The following changes have been made to this guide for this release:

- Added the following new alerts in the "Storage Management Message Reference" section:
  - 2370
  - 2383
  - 2384
  - 2385
  - 2386
- Updated the SNMP trap numbers for the following Storage Management alerts:
  - 2060
  - 2075
  - 2087
  - 2125
  - 2287
- Deleted alerts 2206 and 2207 in the "Storage Management Message Reference" section.
- Added a new alert 2382 in the "Alert Descriptions and Corrective Actions" section.
- Added two alerts 1013 and 1014 in the "Miscellaneous Messages" section.
- Added the POST Code Errors table in the "BIOS Generated System Events" section.
- Support for the VMware® ESXi version 3.5 Update 4 hypervisor and 4.0.
- Support for the Server Administrator Web Server.
- Support for Solid State Drives (SSD).
- Supports Serial Attached SCSI (SAS) controllers.

Messages Not Described in This Guide

This guide describes only event messages logged by Server Administrator and Storage Management that are displayed in the Server Administrator Alert log. For information on other messages produced by your system, see one of the following sources:

- Your system's *Installation and Troubleshooting Guide or Hardware Owner's Manual*.
- Operating system documentation
- Application program documentation

Understanding Event Messages

This section describes the various types of event messages generated by the Server Administrator. When an event occurs on your system, Server Administrator sends information about one of the following event types to the systems management console:

Table 1-1. Understanding Event Messages

Icon	Alert Severity	Component Status
	OK /Normal / Informational	An event that describes the successful operation of a unit. The alert is provided for informational purposes and does not indicate an error condition. For example, the alert may indicate the normal start or stop of an operation, such as power supply or a sensor reading returning to normal.
	Warning / Non-critical	An event that is not necessarily significant, but may indicate a possible future problem. For example, a Warning/Non-critical alert may indicate that a component (such as a temperature probe in an enclosure) has crossed a warning threshold.
	Critical / Failure / Error	A significant event that indicates actual or imminent loss of data or loss of function. For example, crossing a failure threshold or a hardware failure such as an array disk.

Server Administrator generates events based on status changes in the following sensors:

- **Temperature Sensor** — Helps protect critical components by alerting the systems management console when temperatures become too high inside a chassis; also monitors a variety of locations in the chassis and in any attached systems.
- **Fan Sensor** — Monitors fans in various locations in the chassis and in any attached systems.
- **Voltage Sensor** — Monitors voltages across critical components in various chassis locations and in any attached systems.
- **Current Sensor** — Monitors the current (or amperage) output from the power supply (or supplies) in the chassis and in any attached systems.
- **Chassis Intrusion Sensor** — Monitors intrusion into the chassis and any attached systems.
- **Redundancy Unit Sensor** — Monitors redundant units (critical units such as fans, AC power cords, or power supplies) within the chassis; also monitors the chassis and any attached systems. For example, redundancy allows a second or *n*th fan to keep the chassis components at a safe temperature when another fan has failed. Redundancy is normal when the intended number of critical components are operating. Redundancy is degraded when a component fails, but others are still operating. Redundancy is lost when there is one less critical redundancy device than required.
- **Power Supply Sensor** — Monitors power supplies in the chassis and in any attached systems.
- **Memory Prefailure Sensor** — Monitors memory modules by counting the number of Error Correction Code (ECC) memory corrections.
- **Fan Enclosure Sensor** — Monitors protective fan enclosures by detecting their removal from and insertion into the system, and by measuring how long a fan enclosure is absent from the chassis. This sensor monitors the chassis and any attached systems.
- **AC Power Cord Sensor** — Monitors the presence of AC power for an AC power cord.
- **Hardware Log Sensor** — Monitors the size of a hardware log.

- **Processor Sensor** — Monitors the processor status in the system.
- **Pluggable Device Sensor** — Monitors the addition, removal, or configuration errors for some pluggable devices, such as memory cards.
- **Battery Sensor** — Monitors the status of one or more batteries in the system.

Sample Event Message Text

The following example shows the format of the event messages logged by Server Administrator.

```
EventID: 1000

Source: Server Administrator

Category: Instrumentation Service

Type: Information

Date and Time: Mon Oct 21 10:38:00 2002

Computer: <computer name>

Description:

Server Administrator starting

Data: Bytes in Hex
```

Viewing Alerts and Event Messages

An event log is used to record information about important events.

Server Administrator generates alerts that are added to the operating system event log and to the Server Administrator Alert log. To view these alerts in Server Administrator:

1. Select the **System** object in the tree view.
2. Select the **Logs** tab.
3. Select the **Alert** subtab.

You can also view the event log using your operating system's event viewer. Each operating system's event viewer accesses the applicable operating system event log.

The location of the event log file depends on the operating system you are using.

- In the Microsoft® Windows® 2000 Advanced Server and Windows Server® 2003 operating systems, messages are logged to the system event log and optionally to a Unicode text file, **dcsys32.log** (viewable using Notepad), that is located in the *install_path***omsa\log** directory. The default *install_path* is **C:\Program Files\Dell\SysMgt**.
- In the Red Hat® Enterprise Linux®, SUSE® Linux Enterprise Server, and VMware ESXi version 3.5 update 4 operating systems, messages are logged to the system log file. The default name of the system log file is **/var/log/messages**. You can view the messages file using a text editor such as vi or emacs.

Logging Messages to a Unicode Text File

Logging messages to a Unicode text file is optional. By default, the feature is disabled. To enable this feature, modify the **Event Manager** section of the **dcemdy32.ini** file as follows:

- In Windows, locate the file at <*install_path*>**dataeng\ini** and set `UnitextLog.enabled=True`. The default *install_path* is **C:\Program Files\Dell\SysMgt**. Restart the **DSM SA Event Manager** service.
- In Red Hat Enterprise Linux and SUSE Linux Enterprise Server locate the file at <*install_path*>**/dataeng/ini** and set `UnitextLog.enabled=True`. The default ***install_path*** is **/opt/dell/srvadmin**. Issue the "**/etc/init.d/dataeng restart**" command to restart the Server Administrator event manager service. This will also restart the Server Administrator data manager and SNMP services.

The following subsections explain how to open the Windows 2000 Advanced Server, Windows Server 2003, Red Hat Enterprise Linux, and SUSE Linux Enterprise Server, and VMware ESXi version 3.5 update 4 event viewers.

Viewing Events in Windows 2000 Advanced Server and Windows Server 2003

1. Click the **Start** button, point to **Settings**, and click **Control Panel**.
2. Double-click **Administrative Tools**, and then double-click **Event Viewer**.

3 In the **Event Viewer** window, click the **Tree** tab and then click **System Log**.

The **System Log** window displays a list of recently logged events.

4 To view the details of an event, double-click one of the event items.

NOTE: You can also look up the **dcsys32.log** file, in the *install_path*\omsa\log directory, to view the separate event log file. The default *install_path* is C:\Program Files\Dell\SysMgt.

Viewing Events in Red Hat Enterprise Linux and SUSE Linux Enterprise Server

1 Log in as **root**.

2 Use a text editor such as vi or emacs to view the file named **/var/log/messages**.

The following example shows the Red Hat Enterprise Linux and SUSE Linux Enterprise Server message log, **/var/log/messages**. The text in boldface type indicates the message text.

NOTE: These messages are typically displayed as one long line. In the following example, the message is displayed using line breaks to help you see the message text more clearly.

```
...

Feb 6 14:20:51 server01 Server Administrator:
Instrumentation Service EventID: 1000
Server Administrator starting

Feb 6 14:20:51 server01 Server Administrator:
Instrumentation Service EventID: 1001
Server Administrator startup complete

Feb 6 14:21:21 server01 Server Administrator:
Instrumentation Service EventID: 1254 Chassis
intrusion detected Sensor location: Main chassis
intrusion Chassis location: Main System Chassis
Previous state was: OK (Normal) Chassis intrusion
state: Open

Feb 6 14:21:51 server01 Server Administrator:
Instrumentation Service EventID: 1252 Chassis
intrusion returned to normal Sensor location: Main
```

```
chassis intrusion Chassis location: Main System
Chassis Previous state was: Critical (Failed) Chassis
intrusion state: Closed
```

Viewing Events in VMware ESXi version 3.5 update 4

1. Log in to the VMware ESXi system with VMware Infrastructure (VI) Client.
2. Click **Administration** on the navigation bar.
3. Select **System Logs**.
4. Select **Server Log** [**/var/log/messages**] entry on the drop-down list.

NOTE: VMware® ESXi 3.5 update 4 does not support SNMP traps for this release.

Viewing the Event Information

The event log for each operating system contains some or all of the following information:

- **Date** — The date the event occurred.
- **Time** — The local time the event occurred.
- **Type** — A classification of the event severity: Information, Warning, or Error.
- **User** — The name of the user on whose behalf the event occurred.
- **Computer** — The name of the system where the event occurred.
- **Source** — The software that logged the event.
- **Category** — The classification of the event by the event source.
- **Event ID** — The number identifying the particular event type.
- **Description** — A description of the event. The format and contents of the event description vary, depending on the event type.

Understanding the Event Description

Table 1-2 lists in alphabetical order each line item that may appear in the event description.

Table 1-2. Event Description Reference

Description Line Item	Explanation
`Action performed was: <Action>`	Specifies the action that was performed, for example: `Action performed was: Power cycle`
`Action requested was: <Action>`	Specifies the action that was requested, for example: Action requested was: Reboot, shutdown OS first
`Additional Details: <Additional details for the event>`	Specifies additional details available for the hot plug event, for example: `Memory device: DIMM1_A Serial number: FFFF30B1`
`<Additional power supply status information>`	Specifies information pertaining to the event, for example: `Power supply input AC is off, Power supply POK (power OK) signal is not normal, Power supply is turned off`
`Chassis intrusion state: <Intrusion state>`	Specifies the chassis intrusion state (open or closed), for example: `Chassis intrusion state: Open`
`Chassis location: <Name of chassis>`	Specifies name of the chassis that generated the message, for example: `Chassis location: Main System Chassis`
`Configuration error type: <type of configuration error>`	Specifies the type of configuration error that occurred, for example: `Configuration error type: Revision mismatch`
`Current sensor value (in Amps): <Reading>`	Specifies the current sensor value in amps, for example: `Current sensor value (in Amps): 7.853`
`Date and time of action: <Date and time>`	Specifies the date and time the action was performed, for example: `Date and time of action: Sat Jun 12 16:20:33 2004`

Table 1-2. Event Description Reference *(continued)*

Description Line Item	Explanation
`Device location: <Location in chassis>`	Specifies the location of the device in the specified chassis, for example: `Device location: Memory Card A`
`Discrete current state: <State>`	Specifies the state of the current sensor, for example: `Discrete current state: Good`
`Discrete temperature state: <State>`	Specifies the state of the temperature sensor, for example: `Discrete temperature state: Good`
`Discrete voltage state: <State>`	Specifies the state of the voltage sensor, for example: `Discrete voltage state: Good`

`Fan sensor value: <Reading>`	Specifies the fan speed in revolutions per minute (RPM) or On/Off, for example:
	`Fan sensor value (in RPM): 2600`
	`Fan sensor value: Off`

`Log type: <Log type>`	Specifies the type of hardware log, for example: `Log type: ESM`
`Memory device bank location: <Bank name in chassis>`	Specifies the name of the memory bank in the system that generated the message, for example: `Memory device bank location: Bank_1`
`Memory device location: <Device name in chassis>`	Specifies the location of the memory module in the chassis, for example: `Memory device location: DIMM_A`
`Number of devices required for full redundancy: <Number>`	Specifies the number of power supply or cooling devices required to achieve full redundancy, for example: `Number of devices required for full redundancy: 4`
`Peak value (in Watts): <Reading>`	Specifies the peak value in Watts, for example: `Peak value (in Watts): 1.693`

Table 1-2. Event Description Reference *(continued)*

Description Line Item	Explanation

`Possible memory module event cause: <list of causes>`	Specifies a list of possible causes for the memory module event, for example:
	`Possible memory module event cause: Single bit warning error rate exceeded`
	`Single bit error logging disabled`

`Power Supply type: <type of power supply>`	Specifies the type of power supply, for example: `Power Supply type: VRM`
`Previous redundancy state was: <State>`	Specifies the status of the previous redundancy message, for example: `Previous redundancy state was: Lost`
`Previous state was: <State>`	Specifies the previous state of the sensor, for example: `Previous state was: OK (Normal)`
`Processor sensor status: <status>`	Specifies the status of the processor sensor, for example: `Processor sensor status: Configuration error`
`Redundancy unit: <Redundancy location in chassis>`	Specifies the location of the redundant power supply or cooling unit in the chassis, for example: `Redundancy unit: Fan Enclosure`
`Sensor location: <Location in chassis>`	Specifies the location of the sensor in the specified chassis, for example: `Sensor location: CPU1`
`Temperature sensor value: <Reading>`	Specifies the temperature in degrees Celsius, for example: `Temperature sensor value (in degrees Celsius): 30`
`Voltage sensor value (in Volts): <Reading>`	Specifies the voltage sensor value in volts, for example: `Voltage sensor value (in Volts): 1.693`

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Event Message Reference

The following tables lists in numerical order each event ID and its corresponding description, along with its severity and cause.

NOTE: For corrective actions, see the appropriate documentation.

Miscellaneous Messages

Miscellaneous messages in Table 2-1 indicate that certain alert systems are up and working.

Table 2-1. Miscellaneous Messages

Event ID	Description	Severity	Cause
0000	Log was cleared	Information	User cleared the log from Server Administrator.
0001	Log backup created	Information	The log was full, copied to backup, and cleared.
1000	Server Administrator starting	Information	Server Administrator is beginning to initialize.
1001	Server Administrator startup complete	Information	Server Administrator completed its initialization.
1002	A system BIOS update has been scheduled for the next reboot	Information	The user has chosen to update the flash basic input/output system (BIOS).
1003	A previously scheduled system BIOS update has been canceled	Information	The user decides to cancel the flash BIOS update, or an error occurs during the flash.

Table 2-1. Miscellaneous Messages *(continued)*

Event ID	Description	Severity	Cause
1004	`Thermal shutdown protection has been initiated`	Error	This message is generated when a system is configured for thermal shutdown due to an error event. If a temperature sensor reading exceeds the error threshold for which the system is configured, the operating system shuts down and the system powers off. This event may also be initiated on certain systems when a fan enclosure is removed from the system for an extended period of time.
1005	`SMBIOS data is absent`	Error	The system does not contain the required systems management BIOS version 2.2 or higher, or the BIOS is corrupted.

1006	`Automatic System Recovery (ASR) action was performed`
	`Action performed was: <Action>`
	`Date and time of action: <Date and time>`
		Error	This message is generated when an automatic system recovery action is performed due to a hung operating system. The action performed and the time of action are provided.

1007	`User initiated host system control action` `Action requested was: <Action>`	Information	User requested a host system control action to reboot, power off, or power cycle the system. Alternatively, the user had indicated protective measures to be initiated in the event of a thermal shutdown.

Table 2-1. Miscellaneous Messages *(continued)*

Event ID	Description	Severity	Cause
1008	Systems Management Data Manager Started	Information	Systems Management Data Manager services were started.
1009	Systems Management Data Manager Stopped	Information	Systems Management Data Manager services were stopped.
1011	RCI table is corrupt	Error	This message is generated when the BIOS Remote Configuration Interface (RCI) table is corrupted or cannot be read by the systems management software.
1012	IPMI Status Interface: <*the IPMI interface being used*>, <*additional information if available and applicable*>	Information	This message is generated to indicate the Intelligent Platform Management Interface (IPMI)) status of the system. Additional information, when available, includes Baseboard Management Controller (BMC) not present, BMC not responding, System Event Log (SEL) not present, and SEL Data Record (SDR) not present.
1013	System Peak Power detected new peak value Peak value (in Watts):<Reading>	Information	The system peak power sensor detected a new peak value in power consumption. The new peak value in Watts is provided.
1014	System software event:<*Description*> Date and time of action:<*Date and time*>	Warning	This event is generated when the systems management agent detects a critical system software generated event in the system event log which could have been resolved.

Temperature Sensor Messages

Temperature sensors listed in Table 2-2 help protect critical components by alerting the systems management console when temperatures become too high inside a chassis. The temperature sensor messages use additional variables: sensor location, chassis location, previous state, and temperature sensor value or state.

Table 2-2. Temperature Sensor Messages

Event ID	Description	Severity	Cause
1050	Temperature sensor has failed Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Temperature sensor value (in degrees Celsius): *<Reading>* If sensor type is discrete: Discrete temperature state: *<State>*	Error	A temperature sensor on the backplane board, system board, or the carrier in the specified system failed. The sensor location, chassis location, previous state, and temperature sensor value are provided.
1051	Temperature sensor value unknown Sensor location: <Location in chassis> Chassis location: <Name of chassis> If sensor type is not discrete: Temperature sensor value (in degrees Celsius): *<Reading>* If sensor type is discrete: Discrete temperature state: *<State>*	Information	A temperature sensor on the backplane board, system board, or drive carrier in the specified system could not obtain a reading. The sensor location, chassis location, previous state, and a nominal temperature sensor value are provided.

Table 2-2. Temperature Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1052	Temperature sensor returned to a normal value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* If sensor type is not discrete: Temperature sensor value (in degrees Celsius): *<Reading>* If sensor type is discrete: Discrete temperature state: *<State>*	Information	A temperature sensor on the backplane board, system board, or drive carrier in the specified system returned to a valid range after crossing a failure threshold. The sensor location, chassis location, previous state, and temperature sensor value are provided.
1053	Temperature sensor detected a warning value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* If sensor type is not discrete: Temperature sensor value (in degrees Celsius): *<Reading>* If sensor type is discrete: Discrete temperature state: *<State>*	Warning	A temperature sensor on the backplane board, system board, CPU, or drive carrier in the specified system exceeded its warning threshold. The sensor location, chassis location, previous state, and temperature sensor value are provided.

Table 2-2. Temperature Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1054	Temperature sensor detected a failure value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* If sensor type is not discrete: Temperature sensor value (in degrees Celsius): *<Reading>* If sensor type is discrete: Discrete temperature state: *<State>*	Error	A temperature sensor on the backplane board, system board, or drive carrier in the specified system exceeded its failure threshold. The sensor location, chassis location, previous state, and temperature sensor value are provided.
1055	Temperature sensor detected a non-recoverable value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* If sensor type is not discrete: Temperature sensor value (in degrees Celsius): *<Reading>* If sensor type is discrete: Discrete temperature state: *<State>*	Error	A temperature sensor on the backplane board, system board, or drive carrier in the specified system detected an error from which it cannot recover. The sensor location, chassis location, previous state, and temperature sensor value are provided.

Cooling Device Messages

Cooling device sensors listed in Table 2-3 monitor how well a fan is functioning. Cooling device messages provide status and warning information for fans in a particular chassis.

Table 2-3. Cooling Device Messages

Event ID	Description	Severity	Cause

1100	`Fan sensor has failed`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous state was: <State>`
	`Fan sensor value: <Reading>`
		Error	A fan sensor in the specified system is not functioning. The sensor location, chassis location, previous state, and fan sensor value are provided.

1101	`Fan sensor value unknown`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous state was: <State>`
	`Fan sensor value: <Reading>`
		Error	A fan sensor in the specified system could not obtain a reading. The sensor location, chassis location, previous state, and a nominal fan sensor value are provided.

1102	`Fan sensor returned to a normal value`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous state was: <State>`
	`Fan sensor value: <Reading>`
		Information	A fan sensor reading on the specified system returned to a valid range after crossing a warning threshold. The sensor location, chassis location, previous state, and fan sensor value are provided.

Table 2-3. Cooling Device Messages *(continued)*

Event ID	Description	Severity	Cause
1103	Fan sensor detected a warning value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* Fan sensor value: *<Reading>*	Warning	A fan sensor reading in the specified system exceeded a warning threshold. The sensor location, chassis location, previous state, and fan sensor value are provided.
1104	Fan sensor detected a failure value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* Fan sensor value: *<Reading>*	Error	A fan sensor in the specified system detected the failure of one or more fans. The sensor location, chassis location, previous state, and fan sensor value are provided.
1105	Fan sensor detected a non-recoverable value Sensor location: *<Location in chassis>* Chassis location: *<Name of chassis>* Previous state was: *<State>* Fan sensor value: *<Reading>*	Error	A fan sensor detected an error from which it cannot recover. The sensor location, chassis location, previous state, and fan sensor value are provided.

Voltage Sensor Messages

Voltage sensors listed in Table 2-4 monitor the number of volts across critical components. Voltage sensor messages provide status and warning information for voltage sensors in a particular chassis.

Table 2-4. Voltage Sensor Messages

Event ID	Description	Severity	Cause

1150	`Voltage sensor has failed`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous state was: <State>`
	`If sensor type is not discrete:`
	`Voltage sensor value (in Volts): <Reading>`
	`If sensor type is discrete:`
	`Discrete voltage state: <State>`
		Error	A voltage sensor in the specified system failed. The sensor location, chassis location, previous state, and voltage sensor value are provided.

1151	`Voltage sensor value unknown`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous state was: <State>`
	`If sensor type is not discrete:`
	`Voltage sensor value (in Volts): <Reading>`
	`If sensor type is discrete:`
	`Discrete voltage state: <State>`
		Warning	A voltage sensor in the specified system could not obtain a reading. The sensor location, chassis location, previous state, and a nominal voltage sensor value are provided.

Table 2-4. Voltage Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1152	Voltage sensor returned to a normal value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Voltage sensor value (in Volts): *<Reading>* If sensor type is discrete: Discrete voltage state: *<State>*	Information	A voltage sensor in the specified system returned to a valid range after crossing a failure threshold. The sensor location, chassis location, previous state, and voltage sensor value are provided.
1153	Voltage sensor detected a warning value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Voltage sensor value (in Volts): *<Reading>* If sensor type is discrete: Discrete voltage state: *<State>*	Warning	A voltage sensor in the specified system exceeded its warning threshold. The sensor location, chassis location, previous state, and voltage sensor value are provided.

Table 2-4. Voltage Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1154	Voltage sensor detected a failure value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Voltage sensor value (in Volts): *<Reading>* If sensor type is discrete: Discrete voltage state: *<State>*	Error	A voltage sensor in the specified system exceeded its failure threshold. The sensor location, chassis location, previous state, and voltage sensor value are provided.
1155	Voltage sensor detected a non-recoverable value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Voltage sensor value (in Volts): *<Reading>* If sensor type is discrete: Discrete voltage state: *<State>*	Error	A voltage sensor in the specified system detected an error from which it cannot recover. The sensor location, chassis location, previous state, and voltage sensor value are provided.

Current Sensor Messages

Current sensors listed in Table 2-5 measure the amount of current (in amperes) that is traversing critical components. Current sensor messages provide status and warning information for current sensors in a particular chassis.

Table 2-5. Current Sensor Messages

Event ID	Description	Severity	Cause
1200	Current sensor has failed Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Current sensor value (in Amps): *<Reading>* OR Current sensor value (in Watts): *<Reading>* If sensor type is discrete: Discrete current state: *<State>*	Error	A current sensor in the specified system failed. The sensor location, chassis location, previous state, and current sensor value are provided.

Table 2-5. Current Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1201	Current sensor value unknown Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Current sensor value (in Amps): *<Reading>* OR Current sensor value (in Watts): *<Reading>* If sensor type is discrete: Discrete current state: *<State>*	Error	A current sensor in the specified system could not obtain a reading. The sensor location, chassis location, previous state, and a nominal current sensor value are provided.
1202	Current sensor returned to a normal value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Current sensor value (in Amps): *<Reading>* OR Current sensor value (in Watts): *<Reading>* If sensor type is discrete: Discrete current state: *<State>*	Information	A current sensor in the specified system returned to a valid range after crossing a failure threshold. The sensor location, chassis location, previous state, and current sensor value are provided.

Table 2-5. Current Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1203	Current sensor detected a warning value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Current sensor value (in Amps): *<Reading>* OR Current sensor value (in Watts): *<Reading>* If sensor type is discrete: Discrete current state: *<State>*	Warning	A current sensor in the specified system exceeded its warning threshold. The sensor location, chassis location, previous state, and current sensor value are provided.
1204	Current sensor detected a failure value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Current sensor value (in Amps): *<Reading>* OR Current sensor value (in Watts): *<Reading>* If sensor type is discrete: Discrete current state: *<State>*	Error	A current sensor in the specified system exceeded its failure threshold. The sensor location, chassis location, previous state, and current sensor value are provided.

Table 2-5. Current Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1205	Current sensor detected a non-recoverable value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> If sensor type is not discrete: Current sensor value (in Amps): *<Reading>* OR Current sensor value (in Watts): *<Reading>* If sensor type is discrete: Discrete current state: *<State>*	Error	A current sensor in the specified system detected an error from which it cannot recover. The sensor location, chassis location, previous state, and current sensor value are provided.

Chassis Intrusion Messages

Chassis intrusion messages listed in Table 2-6 are a security measure. Chassis intrusion means that someone is opening the cover to a system's chassis. Alerts are sent to prevent unauthorized removal of parts from a chassis.

Table 2-6. Chassis Intrusion Messages

Event ID	Description	Severity	Cause
1250	Chassis intrusion sensor has failed Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Chassis intrusion state: *<Intrusion state>*	Error	A chassis intrusion sensor in the specified system failed. The sensor location, chassis location, previous state, and chassis intrusion state are provided.
1251	Chassis intrusion sensor value unknown Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Chassis intrusion state: *<Intrusion state>*	Error	A chassis intrusion sensor in the specified system could not obtain a reading. The sensor location, chassis location, previous state, and chassis intrusion state are provided.
1252	Chassis intrusion returned to normal Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Chassis intrusion state: *<Intrusion state>*	Information	A chassis intrusion sensor in the specified system detected that a cover was opened while the system was operating but has since been replaced. The sensor location, chassis location, previous state, and chassis intrusion state are provided.

Table 2-6. Chassis Intrusion Messages *(continued)*

Event ID	Description	Severity	Cause
1253	Chassis intrusion in progress Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Chassis intrusion state: *<Intrusion state>*	Warning	A chassis intrusion sensor in the specified system detected that a system cover is currently being opened and the system is operating. The sensor location, chassis location, previous state, and chassis intrusion state are provided.
1254	Chassis intrusion detected Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Chassis intrusion state: *<Intrusion state>*	Warning	A chassis intrusion sensor in the specified system detected that the system cover was opened while the system was operating. The sensor location, chassis location, previous state, and chassis intrusion state are provided.
1255	Chassis intrusion sensor detected a non-recoverable value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Chassis intrusion state: *<Intrusion state>*	Error	A chassis intrusion sensor in the specified system detected an error from which it cannot recover. The sensor location, chassis location, previous state, and chassis intrusion state are provided.

Redundancy Unit Messages

Redundancy means that a system chassis has more than one of certain critical components. Fans and power supplies, for example, are so important for preventing damage or disruption of a computer system that a chassis may have "extra" fans or power supplies installed. Redundancy allows a second or *n*th fan to keep the chassis components at a safe temperature when the primary fan has failed. Redundancy is normal when the intended number of critical components are operating. Redundancy is degraded when a component fails but others are still operating. Redundancy is lost when the number of components functioning falls below the redundancy threshold. Table 2-7 lists the redundancy unit messages.

The number of devices required for full redundancy is provided as part of the message, when applicable, for the redundancy unit and the platform. For details on redundancy computation, see the respective platform documentation.

Table 2-7. Redundancy Unit Messages

Event ID	Description	Severity	Cause

1300	`Redundancy sensor has failed Redundancy unit: <Redundancy location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous redundancy state was: <State>`
		Warning	A redundancy sensor in the specified system failed. The redundancy unit location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.

1301	`Redundancy sensor value unknown`
	`Redundancy unit: <Redundancy location in chassis>`
	`Chassis location: <Name of chassis>`
	`Previous redundancy state was: <State>`
		Warning	A redundancy sensor in the specified system could not obtain a reading. The redundancy unit location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.

Table 2-7. Redundancy Unit Messages *(continued)*

Event ID	Description	Severity	Cause
1302	Redundancy not applicable Redundancy unit: *<Redundancy location in chassis>* Chassis location: <Name of chassis> Previous redundancy state was: *<State>*	Information	A redundancy sensor in the specified system detected that a unit was not redundant. The redundancy location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.
1303	Redundancy is offline Redundancy unit: *<Redundancy location in chassis>* Chassis location: <Name of chassis> Previous redundancy state was: *<State>*	Information	A redundancy sensor in the specified system detected that a redundant unit is offline. The redundancy unit location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.
1304	Redundancy regained Redundancy unit: *<Redundancy location in chassis>* Chassis location: <Name of chassis> Previous redundancy state was: *<State>*	Information	A redundancy sensor in the specified system detected that a "lost" redundancy device has been reconnected or replaced; full redundancy is in effect. The redundancy unit location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.

Table 2-7. Redundancy Unit Messages *(continued)*

Event ID	Description	Severity	Cause
1305	Redundancy degraded Redundancy unit: *<Redundancy location in chassis>* Chassis location: <Name of chassis> Previous redundancy state was: *<State>*	Warning	A redundancy sensor in the specified system detected that one of the components of the redundancy unit has failed but the unit is still redundant. The redundancy unit location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.
1306	Redundancy lost Redundancy unit: *<Redundancy location in chassis>* Chassis location: <Name of chassis> Previous redundancy state was: *<State>*	Error	A redundancy sensor in the specified system detected that one of the components in the redundant unit has been disconnected, has failed, or is not present. The redundancy unit location, chassis location, previous redundancy state, and the number of devices required for full redundancy are provided.

Power Supply Messages

Power supply sensors monitor how well a power supply is functioning. Power supply messages listed in Table 2-8 provide status and warning information for power supplies present in a particular chassis.

Table 2-8. Power Supply Messages

Event ID	Description	Severity	Cause
1350	Power supply sensor has failed Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Power Supply type: *<type of power supply>* *<Additional power supply status information>* If in configuration error state: Configuration error type: <type of configuration error>	Error	A power supply sensor in the specified system failed. The sensor location, chassis location, previous state, and additional power supply status information are provided.
1351	Power supply sensor value unknown Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Power Supply type: <type of power supply> *<Additional power supply status information>* If in configuration error state: Configuration error type: <type of configuration error>	Warning	A power supply sensor in the specified system could not obtain a reading. The sensor location, chassis location, previous state, and additional power supply status information are provided.

Table 2-8. Power Supply Messages *(continued)*

Event ID	Description	Severity	Cause
1352	Power supply returned to normal Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Power Supply type: <type of power supply> *<Additional power supply status information>* If in configuration error state: Configuration error type: <type of configuration error>	Information	A power supply has been reconnected or replaced. The sensor location, chassis location, previous state, and additional power supply status information are provided.
1353	Power supply detected a warning Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Power Supply type: <type of power supply> *<Additional power supply status information>* If in configuration error state: Configuration error type: <type of configuration error>	Warning	A power supply sensor reading in the specified system exceeded a user-definable warning threshold. The sensor location, chassis location, previous state, and additional power supply status information are provided.

Table 2-8. Power Supply Messages *(continued)*

Event ID	Description	Severity	Cause
1354	Power supply detected a failure Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Power Supply type: <type of power supply> *<Additional power supply status information>* If in configuration error state: Configuration error type: <type of configuration error>	Error	A power supply has been disconnected or has failed. The sensor location, chassis location, previous state, and additional power supply status information are provided.
1355	Power supply sensor detected a non-recoverable value Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Power Supply type: <type of power supply> *<Additional power supply status information>* If in configuration error state: Configuration error type: <type of configuration error>	Error	A power supply sensor in the specified system detected an error from which it cannot recover. The sensor location, chassis location, previous state, and additional power supply status information are provided.

Memory Device Messages

Memory device messages listed in Table 2-9 provide status and warning information for memory modules present in a particular system. Memory devices determine health status by monitoring the ECC memory correction rate and the type of memory events that have occurred.

NOTE: A critical status does not always indicate a system failure or loss of data. In some instances, the system has exceeded the ECC correction rate. Although the system continues to function, you should perform system maintenance as described in Table 2-9.

NOTE: In Table 2-9, *<status>* can be either `critical` or `non-critical`.

Table 2-9. Memory Device Messages

Event ID	Description	Severity	Cause
1403	`Memory device status is <status> Memory device location: <location in chassis>` `Possible memory module event cause: <list of causes>`	Warning	A memory device correction rate exceeded an acceptable value. The memory device status and location are provided.
1404	`Memory device status is <status> Memory device location: <location in chassis>` `Possible memory module event cause: <list of causes>`	Error	A memory device correction rate exceeded an acceptable value, a memory spare bank was activated, or a multibit ECC error occurred. The system continues to function normally (except for a multibit error). Replace the memory module identified in the message during the system's next scheduled maintenance. Clear the memory error on multibit ECC error. The memory device status and location are provided.

Fan Enclosure Messages

Some systems are equipped with a protective enclosure for fans. Fan enclosure messages listed in Table 2-10 monitor whether foreign objects are present in an enclosure and how long a fan enclosure is missing from a chassis.

Table 2-10. Fan Enclosure Messages

Event ID	Description	Severity	Cause

1450	`Fan enclosure sensor has failed`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
		Critical/ Failure / Error	The fan enclosure sensor in the specified system failed. The sensor location and chassis location are provided.

1451	`Fan enclosure sensor value unknown`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
		Warning	The fan enclosure sensor in the specified system could not obtain a reading. The sensor location and chassis location are provided.

1452	`Fan enclosure inserted into system`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
		Information	A fan enclosure has been inserted into the specified system. The sensor location and chassis location are provided.

1453	`Fan enclosure removed from system`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
		Warning	A fan enclosure has been removed from the specified system. The sensor location and chassis location are provided.

Table 2-10. Fan Enclosure Messages *(continued)*

Event ID	Description	Severity	Cause
1454	Fan enclosure removed from system for an extended amount of time Sensor location: <Location in chassis> Chassis location: <Name of chassis>	Error	A fan enclosure has been removed from the specified system for a user-definable length of time. The sensor location and chassis location are provided.
1455	Fan enclosure sensor detected a non-recoverable value Sensor location: <Location in chassis> Chassis location: <Name of chassis>	Error	A fan enclosure sensor in the specified system detected an error from which it cannot recover. The sensor location and chassis location are provided.

AC Power Cord Messages

AC power cord messages listed in Table 2-11 provide status and warning information for power cords that are part of an AC power switch, if your system supports AC switching.

Table 2-11. AC Power Cord Messages

Event ID	Description	Severity	Cause
1500	`AC power cord sensor has failed Sensor location: <Location in chassis>` `Chassis location: <Name of chassis>`	Critical/ Failure/ Error	An AC power cord sensor in the specified system failed. The AC power cord status cannot be monitored. The sensor location and chassis location information are provided.

1501	`AC power cord is not being monitored`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
		Information	The AC power cord status is not being monitored. This occurs when a system's expected AC power configuration is set to **nonredundant**. The sensor location and chassis location information are provided.

1502	`AC power has been restored`
	`Sensor location: <Location in chassis>`
	`Chassis location: <Name of chassis>`
		Information	An AC power cord that did not have AC power has had the power restored. The sensor location and chassis location information are provided.

Table 2-11. AC Power Cord Messages *(continued)*

Event ID	Description	Severity	Cause
1503	AC power has been lost Sensor location: <Location in chassis> Chassis location: <Name of chassis>	Critical/ Failure/ Error	An AC power cord has lost its power, but there is sufficient redundancy to classify this as a warning. The sensor location and chassis location information are provided.
1504	AC power has been lost Sensor location: <Location in chassis> Chassis location: <Name of chassis>	Error	An AC power cord has lost its power, and lack of redundancy requires this to be classified as an error. The sensor location and chassis location information are provided.
1505	AC power has been lost Sensor location: <Location in chassis> Chassis location: <Name of chassis>	Error	An AC power cord sensor in the specified system failed. The AC power cord status cannot be monitored. The sensor location and chassis location information are provided.

Hardware Log Sensor Messages

Hardware logs provide hardware status messages to systems management software. On certain systems, the hardware log is implemented as a circular queue. When the log becomes full, the oldest status messages are overwritten when new status messages are logged. On some systems, the log is not circular. On these systems, when the log becomes full, subsequent hardware status messages are lost. Hardware log sensor messages listed in Table 2-12 provide status and warning information about the noncircular logs that may fill up, resulting in lost status messages.

Table 2-12. Hardware Log Sensor Messages

Event ID	Description	Severity	Cause
1550	`Log monitoring has been disabled` `Log type: <Log type>`	Warning	A hardware log sensor in the specified system is disabled. The log type information is provided.
1551	`Log status is unknown` `Log type: <Log type>`	Information	A hardware log sensor in the specified system could not obtain a reading. The log type information is provided.
1552	`Log size is no longer near or at capacity` `Log type: <Log type>`	Information	The hardware log on the specified system is no longer near or at its capacity, usually as the result of clearing the log. The log type information is provided.
1553	`Log size is near capacity` `Log type: <Log type>`	Warning	The size of a hardware log on the specified system is near or at the capacity of the hardware log. The log type information is provided.
1554	`Log size is full` `Log type: <Log type>`	Error	The size of a hardware log on the specified system is full. The log type information is provided.
1555	`Log sensor has failed` `Log type: <Log type>`	Error	A hardware log sensor in the specified system failed. The hardware log status cannot be monitored. The log type information is provided.

Processor Sensor Messages

Processor sensors monitor how well a processor is functioning. Processor messages listed in Table 2-13 provide status and warning information for processors in a particular chassis.

Table 2-13. Processor Sensor Messages

Event ID	Description	Severity	Cause
1600	Processor sensor has failed Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Processor sensor status: *<status>*	Critical/ Failure/ Error	A processor sensor in the specified system is not functioning. The sensor location, chassis location, previous state and processor sensor status are provided.
1601	Processor sensor value unknown Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Processor sensor status: *<status>*	Critical/ Failure/ Error	A processor sensor in the specified system could not obtain a reading. The sensor location, chassis location, previous state and processor sensor status are provided.

Table 2-13. Processor Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1602	Processor sensor returned to a normal value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Processor sensor status: *<status>*	Information	A processor sensor in the specified system transitioned back to a normal state. The sensor location, chassis location, previous state and processor sensor status are provided.
1603	Processor sensor detected a warning value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Processor sensor status: *<status>*	Warning	A processor sensor in the specified system is in a throttled state. The sensor location, chassis location, previous state and processor sensor status are provided.

Table 2-13. Processor Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1604	Processor sensor detected a failure value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Processor sensor status: *<status>*	Error	A processor sensor in the specified system is disabled, has a configuration error, or experienced a thermal trip. The sensor location, chassis location, previous state and processor sensor status are provided.
1605	Processor sensor detected a non-recoverable value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Processor sensor status: *<status>*	Error	A processor sensor in the specified system has failed. The sensor location, chassis location, previous state and processor sensor status are provided.

Pluggable Device Messages

The pluggable device messages listed in Table 2-14 provide status and error information when some devices, such as memory cards, are added or removed.

Table 2-14. Pluggable Device Messages

Event ID	Description	Severity	Cause
1650	<Device plug event type unknown> Device location: *<Location in chassis, if available>* Chassis location: *<Name of chassis, if available>* Additional details: *<Additional details for the events, if available>*	Information	A pluggable device event message of unknown type was received. The device location, chassis location, and additional event details, if available, are provided.
1651	Device added to system Device location: *<Location in chassis>* Chassis location: *<Name of chassis>* Additional details: *<Additional details for the events>*	Information	A device was added in the specified system. The device location, chassis location, and additional event details, if available, are provided.

Table 2-14. Pluggable Device Messages *(continued)*

Event ID	Description	Severity	Cause
1652	Device removed from system Device location: *<Location in chassis>* Chassis location: *<Name of chassis>* Additional details: *<Additional details for the events>*	Information	A device was removed from the specified system. The device location, chassis location, and additional event details, if available, are provided.
1653	Device configuration error detected Device location: *<Location in chassis>* Chassis location: *<Name of chassis>* Additional details: *<Additional details for the events>*	Error	A configuration error was detected for a pluggable device in the specified system. The device may have been added to the system incorrectly.

Battery Sensor Messages

Battery sensors monitor how well a battery is functioning. Battery messages listed in Table 2-15 provide status and warning information for batteries in a particular chassis.

Table 2-15. Battery Sensor Messages

Event ID	Description	Severity	Cause
1700	Battery sensor has failed Sensor location: <Location in chassis> Chassis location: <Name of chassis> Previous state was: <State> Battery sensor status: <status>	Critical/ Failure/ Error	A battery sensor in the specified system is not functioning. The sensor location, chassis location, previous state, and battery sensor status are provided.
1701	Battery sensor value unknown Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Battery sensor status: *<status>*	Warning	A battery sensor in the specified system could not retrieve a reading. The sensor location, chassis location, previous state, and battery sensor status are provided.
1702	Battery sensor returned to a normal value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Battery sensor status: *<status>*	Information	A battery sensor in the specified system detected that a battery transitioned back to a normal state. The sensor location, chassis location, previous state, and battery sensor status are provided.

Table 2-15. Battery Sensor Messages *(continued)*

Event ID	Description	Severity	Cause
1703	Battery sensor detected a warning value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Battery sensor status: *<status>*	Warning	A battery sensor in the specified system detected that a battery is in a predictive failure state. The sensor location, chassis location, previous state, and battery sensor status are provided.
1704	Battery sensor detected a failure value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Battery sensor status: *<status>*	Error	A battery sensor in the specified system detected that a battery has failed. The sensor location, chassis location, previous state, and battery sensor status are provided.
1705	Battery sensor detected a non-recoverable value Sensor Location: *<Location in chassis>* Chassis Location: *<Name of chassis>* Previous state was: *<State>* Battery sensor status: *<status>*	Error	A battery sensor in the specified system detected that a battery has failed. The sensor location, chassis location, previous state, and battery sensor status are provided.

Chassis Management Controller Messages

Alerts sent by Dell™ M1000e Chassis Management Controller (CMC) are organized by severity. That is, the event ID of the CMC trap indicates the severity (informational, warning, critical, or non-recoverable) of the alert. Each CMC alert includes the originating system name, location, and event message text. The alert message text matches the corresponding Chassis Event Log message text that is logged by the sending CMC for that event.

Table 2-16. Chassis Management Controller Messages

EventID	Description	Severity	Cause
2000	CMC generated a test trap	Informational	A user-initiated test trap was issued, through the CMC GUI or RACADM CLI.
2002	CMC reported a return-to-normal or informational	Informational	CMC informational event, as described in the **drsCAMessage** variable binding supplied with the alert.
2003	CMC reported a warning	Warning	CMC warning event, as described in the **drsCAMessage** variable supplied with the alert.
2004	CMC reported a critical event	Critical	CMC critical event, as described in the **drsCAMessage** variable binding supplied with the alert.
2005	CMC reported a non-recoverable event	Non-Recoverable	CMC non-recoverable event, as described in the **drsCAMessage** variable binding supplied with the alert.

3

System Event Log Messages for IPMI Systems

The tables in this chapter list the system event log (SEL) messages, their severity, and cause.

NOTE: For corrective actions, see the appropriate documentation.

Temperature Sensor Events

The temperature sensor event messages help protect critical components by alerting the systems management console when the temperature rises inside the chassis. These event messages use additional variables, such as sensor location, chassis location, previous state, and temperature sensor value or state.

Table 3-1. Temperature Sensor Events

Event Message	Severity	Cause
<*Sensor Name/Location*> temperature sensor detected a failure <*Reading*> where <*Sensor Name/Location*> is the entity that this sensor is monitoring. For example, "PROC Temp" or "Planar Temp." Reading is specified in degree Celsius. For example 100 C.	Critical	Temperature of the backplane board, system board, or the carrier in the specified system <*Sensor Name/Location*> exceeded the critical threshold.
<*Sensor Name/Location*> temperature sensor detected a warning <*Reading*>.	Warning	Temperature of the backplane board, system board, or the carrier in the specified system <*Sensor Name/Location*> exceeded the non-critical threshold.

Table 3-1. Temperature Sensor Events *(continued)*

Event Message	Severity	Cause
<Sensor Name/Location> temperature sensor returned to warning state *<Reading>*.	Warning	Temperature of the backplane board, system board, or the carrier in the specified system <*Sensor Name/Location*> returned from critical state to non-critical state.
<Sensor Name/Location> temperature sensor returned to normal state *<Reading>*.	Information	Temperature of the backplane board, system board, or the carrier in the specified system <*Sensor Name/Location*> returned to normal operating range.

Voltage Sensor Events

The voltage sensor event messages monitor the number of volts across critical components. These messages provide status and warning information for voltage sensors for a particular chassis.

Table 3-2. Voltage Sensor Events

Event Message	Severity	Cause
<Sensor Name/Location> voltage sensor detected a failure <Reading> where <Sensor Name/Location> is the entity that this sensor is monitoring. *Reading is specified in volts.* *For example, 3.860 V.*	Critical	The voltage of the monitored device has exceeded the critical threshold.
<Sensor Name/Location> voltage sensor state asserted.	Critical	The voltage specified by <*Sensor Name/Location*> is in critical state.
<Sensor Name/Location> voltage sensor state de-asserted.	Information	The voltage of a previously reported <*Sensor Name/Location*> is returned to normal state.

Table 3-2. Voltage Sensor Events *(continued)*

Event Message	Severity	Cause
<Sensor Name/Location> voltage sensor detected a warning <Reading>.	Warning	Voltage of the monitored entity <*Sensor Name/Location*> exceeded the warning threshold.
<Sensor Name/Location> voltage sensor returned to normal <Reading>.	Information	The voltage of a previously reported <*Sensor Name/Location*> is returned to normal state.

Fan Sensor Events

The cooling device sensors monitor how well a fan is functioning. These messages provide status warning and failure messages for fans for a particular chassis.

Table 3-3. Fan Sensor Events

Event Message	Severity	Cause
<*Sensor Name/Location*> Fan sensor detected a failure <*Reading*> where <*Sensor Name/Location*> is the entity that this sensor is monitoring. For example "BMC Back Fan" or "BMC Front Fan." Reading is specified in RPM. For example, 100 RPM.	Critical	The speed of the specified <*Sensor Name/Location*> fan is not sufficient to provide enough cooling to the system.
<*Sensor Name/Location*> Fan sensor returned to normal state <*Reading*>.	Information	The fan specified by <*Sensor Name/Location*> has returned to its normal operating speed.

Table 3-3. Fan Sensor Events *(continued)*

Event Message	Severity	Cause
<*Sensor Name/Location*> Fan sensor detected a warning <*Reading*>.	Warning	The speed of the specified <*Sensor Name/Location*> fan may not be sufficient to provide enough cooling to the system.
<*Sensor Name/Location*> Fan Redundancy sensor redundancy degraded.	Information	The fan specified by <*Sensor Name/Location*> may have failed and hence, the redundancy has been degraded.
<*Sensor Name/Location*> Fan Redundancy sensor redundancy lost.	Critical	The fan specified by <*Sensor Name/Location*> may have failed and hence, the redundancy that was degraded previously has been lost.
<Sensor Name/Location> Fan Redundancy sensor redundancy regained	Information	The fan specified by <*Sensor Name/Location*> may have started functioning again and hence, the redundancy has been regained.

Processor Status Events

The processor status messages monitor the functionality of the processors in a system. These messages provide processor health and warning information of a system.

Table 3-4. Processor Status Events

Event Message	Severity	Cause
<*Processor Entity*> status processor sensor IERR, where <*Processor Entity*> is the processor that generated the event. For example, PROC for a single processor system and PROC # for multiprocessor system.	Critical	IERR internal error generated by the <*Processor Entity*>. This event is generated due to processor internal error.
<*Processor Entity*> status processor sensor Thermal Trip.	Critical	The processor generates this event before it shuts down because of excessive heat caused by lack of cooling or heat synchronization.
<*Processor Entity*> status processor sensor recovered from IERR.	Information	This event is generated when a processor recovers from the internal error.
<*Processor Entity*> status processor sensor disabled.	Warning	This event is generated for all processors that are disabled.
<*Processor Entity*> status processor sensor terminator not present.	Information	This event is generated if the terminator is missing on an empty processor slot.
<*Processor Entity*> presence was deasserted.	Critical	This event is generated when the system could not detect the processor.
<*Processor Entity*> presence was asserted.	Information	This event is generated when the earlier processor detection error was corrected.

Table 3-4. Processor Status Events *(continued)*

Event Message	Severity	Cause
<Processor Entity> thermal tripped was deasserted.	Information	This event is generated when the processor has recovered from an earlier thermal condition.
<Processor Entity> configuration error was asserted.	Critical	This event is generated when the processor configuration is incorrect.
<Processor Entity> configuration error was deasserted.	Information	This event is generated when the earlier processor configuration error was corrected.
<Processor Entity> throttled was asserted.	Warning	This event is generated when the processor slows down to prevent overheating.
<Processor Entity> throttled was deasserted.	Information	This event is generated when the earlier processor throttled event was corrected.

Power Supply Events

The power supply sensors monitor the functionality of the power supplies. These messages provide status and warning information for power supplies for a particular system.

Table 3-5. Power Supply Events

Event Message	Severity	Cause
<Power Supply Sensor Name> power supply sensor removed.	Critical	This event is generated when the power supply sensor is removed.
<Power Supply Sensor Name> power supply sensor AC recovered.	Information	This event is generated when the power supply has been replaced.
<Power Supply Sensor Name> power supply sensor returned to normal state.	Information	This event is generated when the power supply that failed or removed was replaced and the state has returned to normal.

Table 3-5. Power Supply Events *(continued)*

Event Message	Severity	Cause
<Entity Name> PS Redundancy sensor redundancy degraded.	Information	Power supply redundancy is degraded if one of the power supply sources is removed or failed.
<Entity Name> PS Redundancy sensor redundancy lost.	Critical	Power supply redundancy is lost if only one power supply is functional.
<Entity Name> PS Redundancy sensor redundancy regained.	Information	This event is generated if the power supply has been reconnected or replaced.
<Power Supply Sensor Name> predictive failure was asserted	Critical	This event is generated when the power supply is about to fail.
<Power Supply Sensor Name> input lost was asserted	Critical	This event is generated when the power supply is unplugged.
<Power Supply Sensor Name> predictive failure was deasserted	Information	This event is generated when the power supply has recovered from an earlier predictive failure event.
<Power Supply Sensor Name> input lost was deasserted	Information	This event is generated when the power supply is plugged in.

Memory ECC Events

The memory ECC event messages monitor the memory modules in a system. These messages monitor the ECC memory correction rate and the type of memory events that occurred.

Table 3-6. Memory ECC Events

Event Message	Severity	Cause
ECC error correction detected on Bank # DIMM [A/B].	Information	This event is generated when there is a memory error correction on a particular Dual Inline Memory Module (DIMM).
ECC uncorrectable error detected on Bank # [DIMM].	Critical	This event is generated when the chipset is unable to correct the memory errors. Usually, a bank number is provided and DIMM may or may not be identifiable, depending on the error.
Correctable memory error logging disabled.	Critical	This event is generated when the chipset in the ECC error correction rate exceeds a predefined limit.

BMC Watchdog Events

The BMC watchdog operations are performed when the system hangs or crashes. These messages monitor the status and occurrence of these events in a system.

Table 3-7. BMC Watchdog Events

Event Message	Severity	Cause
BMC OS Watchdog timer expired.	Information	This event is generated when the BMC watchdog timer expires and no action is set.
BMC OS Watchdog performed system reboot.	Critical	This event is generated when the BMC watchdog detects that the system has crashed (timer expired because no response was received from Host) and the action is set to reboot.

Table 3-7. BMC Watchdog Events *(continued)*

Event Message	Severity	Cause
BMC OS Watchdog performed system power off.	Critical	This event is generated when the BMC watchdog detects that the system has crashed (timer expired because no response was received from Host) and the action is set to power off.
BMC OS Watchdog performed system power cycle.	Critical	This event is generated when the BMC watchdog detects that the system has crashed (timer expired because no response was received from Host) and the action is set to power cycle.

Memory Events

The memory modules can be configured in different ways in particular systems. These messages monitor the status, warning, and configuration information about the memory modules in the system.

Table 3-8. Memory Events

Event Message	Severity	Cause
Memory RAID redundancy degraded.	Warning	This event is generated when there is a memory failure in a RAID-configured memory configuration.
Memory RAID redundancy lost.	Critical	This event is generated when redundancy is lost in a RAID-configured memory configuration.
Memory RAID redundancy regained	Information	This event is generated when the redundancy lost or degraded earlier is regained in a RAID-configured memory configuration.
Memory Mirrored redundancy degraded.	Warning	This event is generated when there is a memory failure in a mirrored memory configuration.

Table 3-8. Memory Events *(continued)*

Event Message	Severity	Cause
`Memory Mirrored redundancy lost.`	Critical	This event is generated when redundancy is lost in a mirrored memory configuration.
`Memory Mirrored redundancy regained.`	Information	This event is generated when the redundancy lost or degraded earlier is regained in a mirrored memory configuration.
`Memory Spared redundancy degraded.`	Warning	This event is generated when there is a memory failure in a spared memory configuration.
`Memory Spared redundancy lost.`	Critical	This event is generated when redundancy is lost in a spared memory configuration.
`Memory Spared redundancy regained.`	Information	This event is generated when the redundancy lost or degraded earlier is regained in a spared memory configuration.

Hardware Log Sensor Events

The hardware logs provide hardware status messages to the system management software. On particular systems, the subsequent hardware messages are not displayed when the log is full. These messages provide status and warning messages when the logs are full.

Table 3-9. Hardware Log Sensor Events

Event Message	Severity	Cause
`Log full detected.`	Critical	This event is generated when the SEL device detects that only one entry can be added to the SEL before it is full.
`Log cleared.`	Information	This event is generated when the SEL is cleared.

Drive Events

The drive event messages monitor the health of the drives in a system. These events are generated when there is a fault in the drives indicated.

Table 3-10. Drive Events

Event Message	Severity	Cause
Drive <*Drive #*> asserted fault state.	Critical	This event is generated when the specified drive in the array is faulty.
Drive <*Drive #*> de-asserted fault state.	Information	This event is generated when the specified drive recovers from a faulty condition.
Drive <*Drive #*> drive presence was asserted	Informational	This event is generated when the drive is installed.
Drive <*Drive #*> predictive failure was asserted	Warning	This event is generated when the drive is about to fail.
Drive <*Drive #*> predictive failure was deasserted	Informational	This event is generated when the drive from earlier predictive failure is corrected.
Drive <*Drive #*> hot spare was asserted	Warning	This event is generated when the drive is placed in a hot spare.
Drive <Drive #> hot spare was deasserted	Informational	This event is generated when the drive is taken out of hot spare.
Drive <*Drive #*> consistency check in progress was asserted	Warning	This event is generated when the drive is placed in consistency check.
Drive <*Drive #*> consistency check in progress was deasserted	Informational	This event is generated when the consistency check of the drive is completed.

Table 3-10. Drive Events *(continued)*

Event Message	Severity	Cause
Drive *<Drive #>* in critical array was asserted	Critical	This event is generated when the drive is placed in critical array.
Drive *<Drive #>* in critical array was deasserted	Informational	This event is generated when the drive is removed from critical array.
Drive *<Drive #>* in failed array was asserted	Critical	This event is generated when the drive is placed in the fail array.
Drive *<Drive #>* in failed array was deasserted	Informational	This event is generated when the drive is removed from the fail array.
Drive *<Drive #>* rebuild in progress was asserted	Informational	This event is generated when the drive is rebuilding.
Drive *<Drive #>* rebuild aborted was asserted	Warning	This event is generated when the drive rebuilding process is aborted.

Intrusion Events

The chassis intrusion messages are a security measure. Chassis intrusion alerts are generated when the system's chassis is opened. Alerts are sent to prevent unauthorized removal of parts from the chassis.

Table 3-11. Intrusion Events

Event Message	Severity	Cause
<Intrusion sensor Name> sensor detected an intrusion.	Critical	This event is generated when the intrusion sensor detects an intrusion.
<Intrusion sensor Name> sensor returned to normal state.	Information	This event is generated when the earlier intrusion has been corrected.

Table 3-11. Intrusion Events *(continued)*

Event Message	Severity	Cause
<Intrusion sensor Name> sensor intrusion was asserted while system was ON	Critical	This event is generated when the intrusion sensor detects an intrusion while the system is on.
<Intrusion sensor Name> sensor intrusion was asserted while system was OFF	Critical	This event is generated when the intrusion sensor detects an intrusion while the system is off.

BIOS Generated System Events

The BIOS-generated messages monitor the health and functionality of the chipsets, I/O channels, and other BIOS-related functions.

Table 3-12. BIOS Generated System Events

Event Message	Severity	Cause
System Event I/O channel chk.	Critical	This event is generated when a critical interrupt is generated in the I/O Channel.
System Event PCI Parity Err.	Critical	This event is generated when a parity error is detected on the PCI bus.
System Event Chipset Err.	Critical	This event is generated when a chip error is detected.
System Event PCI System Err.	Information	This event indicates historical data, and is generated when the system has crashed and recovered.
System Event PCI Fatal Err.	Critical	This error is generated when a fatal error is detected on the PCI bus.

Table 3-12. BIOS Generated System Events *(continued)*

Event Message	Severity	Cause
System Event PCIE Fatal Err.	Critical	This error is generated when a fatal error is detected on the PCIE bus.
POST Err	Critical	This event is generated when an error occurs during system boot. See the system documentation for more information on the error code.
POST fatal error #<number> or <error description>	Critical	This event is generated when a fatal error occurs during system boot. See "Table 3-13" for more information.
Memory Spared redundancy lost	Critical	This event is generated when memory spare is no longer redundant.
Memory Mirrored redundancy lost	Critical	This event is generated when memory mirroring is no longer redundant.
Memory RAID redundancy lost	Critical	This event is generated when memory RAID is no longer redundant.
Err Reg Pointer OEM Diagnostic data event was asserted	Information	This event is generated when an OEM event occurs. OEM events can be used by Dell™ service team to better understand the cause of the failure.
System Board PFault Fail Safe state asserted	Critical	This event is generated when the system board voltages are not at normal levels.
System Board PFault Fail Safe state deasserted	Information	This event is generated when earlier PFault Fail Safe system voltages return to a normal level.

Table 3-12. BIOS Generated System Events *(continued)*

Event Message	Severity	Cause
Memory Add (BANK# DIMM#) presence was asserted	Information	This event is generated when memory is added to the system.
Memory Removed (BANK# DIMM#) presence was asserted	Information	This event is generated when memory is removed from the system.
Memory Cfg Err configuration error (BANK# DIMM#) was asserted	Critical	This event is generated when memory configuration is incorrect for the system.
Mem Redun Gain redundancy regained	Information	This event is generated when memory redundancy is regained.
Mem ECC Warning transition to non-critical from OK	Warning	This event is generated when correctable ECC errors have increased from a normal rate.
Mem ECC Warning transition to critical from less severe	Critical	This event is generated when correctable ECC errors reach a critical rate.
Mem CRC Err transition to non-recoverable	Critical	This event is generated when CRC errors enter a non-recoverable state.
Mem Fatal SB CRC uncorrectable ECC was asserted	Critical	This event is generated when CRC errors occur while storing to memory.
Mem Fatal NB CRC uncorrectable ECC was asserted	Critical	This event is generated when CRC errors occur while removing from memory.
Mem Overtemp critical over temperature was asserted	Critical	This event is generated when system memory reaches critical temperature.

Table 3-12. BIOS Generated System Events *(continued)*

Event Message	Severity	Cause
USB Over-current transition to non-recoverable	Critical	This event is generated when the USB exceeds a predefined current level.
Hdwr version err hardware incompatibility (BMC/iDRAC Firmware and CPU mismatch) was asserted	Critical	This event is generated when there is a mismatch between the BMC and iDRAC firmware and the processor in use or vice versa.
Hdwr version err hardware incompatibility(BMC /iDRAC Firmware and CPU mismatch) was deasserted	Information	This event is generated when the earlier mismatch between the BMC and iDRAC firmware and the processor is corrected.
SBE Log Disabled correctable memory error logging disabled was asserted	Critical	This event is generated when the ECC single bit error rate is exceeded.
CPU Protocol Err transition to non-recoverable	Critical	This event is generated when the processor protocol enters a non-recoverable state.
CPU Bus PERR transition to non-recoverable	Critical	This event is generated when the processor bus PERR enters a non-recoverable state.
CPU Init Err transition to non-recoverable	Critical	This event is generated when the processor initialization enters a non-recoverable state.
CPU Machine Chk transition to non-recoverable	Critical	This event is generated when the processor machine check enters a non-recoverable state.
Logging Disabled all event logging disabled was asserted	Critical	This event is generated when all event logging is disabled.

Table 3-12. BIOS Generated System Events *(continued)*

Event Message	Severity	Cause
LinkT/FlexAddr: Link Tuning sensor, device option ROM failed to support link tuning or flex address (Mezz XX) was asserted	Critical	This event is generated when the PCI device option ROM for a NIC does not support link tuning or the Flex addressing feature.
LinkT/FlexAddr: Link Tuning sensor, failed to program virtual MAC address (<location>) was asserted.	Critical	This event is generated when BIOS fails to program virtual MAC address on the given NIC device.
PCIE NonFatal Er: Non Fatal IO Group sensor, PCIe error(<location>)	Warning	This event is generated in association with a CPU IERR.
I/O Fatal Err: Fatal IO Group sensor, fatal IO error (<location>)	Critical	This event is generated in association with a CPU IERR and indicates the PCI/PCIe device that caused the CPU IERR.
Unknown system event sensor unknown system hardware failure was asserted	Critical	This event is generated when an unknown hardware failure is detected.

POST Code Table

Table 3-13 lists the POST Code errors that are generated when a fatal error occurs during system boot.

Table 3-13. POST Code Errors

Fatal Error Code	Description	Cause
80	No memory detected	This error code implies that no memory is installed.
81	Memory detected but is not configurable	This error code indicates memory configuration error that could be result of bad memory, mismatched memory or bad socket.
82	Memory configured but not usable.	This error code indicates memory sub-system failure.
83	System BIOS shadow failure	This error code indicates system BIOS shadow failure.
84	CMOS failure	This error code indicates that CMOS RAM is not working.
85	DMA controller failure	This error code indicates DMA controller failure.
86	Interrupt controller failure	This error code indicates interrupt controller failure.
87	Timer refresh failure	This error code indicates timer refresh failure.
88	Programmable interval timer error	This error code indicates a programmable interval timer error.
89	Parity error	This error code indicates a parity error.
8A	SIO failure	This error code indicates SIO failure.
8B	Keyboard controller failure	This error code indicates keyboard controller failure.
8C	SMI initialization failure	This error code indicates SMI initialization failure.

Table 3-13. POST Code Errors *(continued)*

Fatal Error Code	Description	Cause
C0	Shutdown test failure	This error code indicates a shutdown test failure.
C1	POST Memory test failure	This error code indicates bad memory detection.
C2	RAC configuration failure	Check screen for the actual error message
C3	CPU configuration failure	Check screen for the actual error message
C4	Incorrect memory configuration	Memory population order not correct.
FE	General failure after video	Check screen for the actual error message

R2 Generated System Events

Table 3-14. R2 Generated Events

Description	Severity	Cause
`System Event: OS stop event OS graceful shutdown detected`	Information	The OS was shutdown/restarted normally.
`OEM Event data record (after OS graceful shutdown/restart event)`	Information	Comment string accompanying an OS shutdown/restart.
`System Event: OS stop event runtime critical stop`	Critical	The OS encountered a critical error and was stopped abnormally.
`OEM Event data record (after OS bugcheck event)`	Information	OS bugcheck code and paremeters.

Cable Interconnect Events

The cable interconnect messages are used for detecting errors in the hardware cabling.

Table 3-15. Cable Interconnect Events

Description	Severity	Cause
Cable sensor <Name/ Location> Configuration error was asserted.	Critical	This event is generated when the cable is not connected or is incorrectly connected.
Cable sensor <Name/ Location> Connection was asserted.	Information	This event is generated when the earlier cable connection error was corrected.

Battery Events

Table 3-16. Battery Events

Description	Severity	Cause
<Battery sensor Name/ Location> Failed was asserted	Critical	This event is generated when the sensor detects a failed or missing battery.
<Battery sensor Name/ Location> Failed was deasserted	Information	This event is generated when the earlier failed battery was corrected.
<Battery sensor Name/ Location> is low was asserted	Warning	This event is generated when the sensor detects a low battery condition.
<Battery sensor Name/ Location> is low was deasserted	Information	This event is generated when the earlier low battery condition was corrected.

Power And Performance Events

The power and performance events are used to detect degradation in system performance with change in power supply.

Table 3-17. Power And Performance Events

Description	Severity	Cause
System Board Power Optimized: Performance status sensor for System Board, degraded, <description of why> was deasserted	Normal	This event is generated when system performance was restored.
System Board Power Optimized: Performance status sensor for System Board, degraded, <description of why> was asserted	Warning	This event is generated when change in power supply degrades system performance.

Entity Presence Events

The entity presence messages are used for detecting different hardware devices.

Table 3-18. Entity Presence Events

Description	Severity	Cause
<Device Name> presence was asserted	Information	This event is generated when the device was detected.
<Device Name> absent was asserted	Critical	This event is generated when the device was not detected.

4

Storage Management Message Reference

The Dell™ OpenManage™ Server Administrator Storage Management's alert or event management features let you monitor the health of storage resources such as controllers, enclosures, physical disks, and virtual disks.

Alert Monitoring and Logging

The Storage Management Service performs alert monitoring and logging. By default, the Storage Management Service starts when the managed system starts up. If you stop the Storage Management Service, then alert monitoring and logging stops. Alert monitoring does the following:

- Updates the status of the storage object that generated the alert.
- Propagates the storage object's status to all the related higher objects in the storage hierarchy. For example, the status of a lower-level object will be propagated up to the status displayed on the **Health** tab for the top-level **Storage** object.
- Logs an alert in the Alert log and the operating system (OS) application log.
- Sends an SNMP trap if the operating system's SNMP service is installed and enabled.

NOTE: Dell OpenManage Server Administrator Storage Management does not log alerts regarding the data I/O path. These alerts are logged by the respective RAID drivers in the system alert log.

See the *Dell OpenManage Server Administrator Storage Management Online Help* for updated information.

Alert Message Format with Substitution Variables

When you view an alert in the Server Administrator alert log, the alert identifies the specific components such as the controller name or the virtual disk name to which the alert applies. In an actual operating environment, a storage system can have many combinations of controllers and disks as well as user-defined names for virtual disks and other components. Because each environment is unique in its storage configuration and user-defined names, an accurate alert message requires that the Storage Management Service be able to insert the environment-specific names of storage components into an alert message.

This environment-specific information is inserted after the alert message text as shown for alert 2127 in Table 4-1.

For other alerts, the alert message text is constructed from information passed directly from the controller (or another storage component) to the Alert Log. In these cases, the variable information is represented with a% (percent sign) in the Storage Management documentation. An example of such an alert is shown for alert 2334 in Table 4-1.

Table 4-1. Alert Message Format

Alert ID	Message Text Displayed in the Storage Management Service Documentation	Message Text Displayed in the Alert Log with Variable Information Supplied
2127	Background Initialization started	Background Initialization started: Virtual Disk 3 (Virtual Disk 3) Controller 1 (PERC 5/E Adapter)
2334	Controller event log%	Controller event log: Current capacity of the battery is above threshold.: Controller 1 (PERC 5/E Adapter)

The variables required to complete the message vary depending on the type of storage object and whether the storage object is in a SCSI or SAS configuration. The following table identifies the possible variables used to identify each storage object.

NOTE: Some alert messages relating to an enclosure or an enclosure component, such as a fan or EMM, are generated by the controller when the enclosure or enclosure component ID cannot be determined.

Table 4-2. Message Format with Variables for Each Storage Object

Storage Object	Message Variables **A, B, C and X, Y, Z in the following examples are variables representing the storage object name or number.**
Controller	Message Format: Controller A (Name) Message Format: Controller A Example: 2326 A foreign configuration has been detected.: Controller 1 (PERC 5/E Adapter) **NOTE:** The controller name is not always displayed.
Battery	Message Format: Battery X Controller A Example: 2174 The controller battery has been removed: Battery 0 Controller 1
SCSI Physical Disk	Message Format: Physical Disk X:Y Controller A, Connector B Example: 2049 Physical disk removed: Physical Disk 0:14 Controller 1, Connector 0
SAS Physical Disk	Message Format: Physical Disk X:Y:Z Controller A, Connector B Example: 2049 Physical disk removed: Physical Disk 0:0:14 Controller 1, Connector 0
Virtual Disk	Message Format: Virtual Disk X (Name) Controller A (Name) Message Format: Virtual Disk X Controller A Example: 2057 Virtual disk degraded: Virtual Disk 11 (Virtual Disk 11) Controller 1 (PERC 5/E Adapter) **NOTE:** The virtual disk and controller names are not always displayed.
Enclosure:	Message Format: Enclosure X:Y Controller A, Connector B Example: 2112 Enclosure shutdown: Enclosure 0:2 Controller 1, Connector 0
SCSI Power Supply	Message Format: Power Supply X Controller A, Connector B, Target ID C where "C" is the SCSI ID number of the enclosure management module (EMM) managing the power supply. Example: 2122 Redundancy degraded: Power Supply 1, Controller 1, Connector 0, Target ID 6

Table 4-2. Message Format with Variables for Each Storage Object *(continued)*

Storage Object	Message Variables **A, B, C and X, Y, Z in the following examples are variables representing the storage object name or number.**
SAS Power Supply	Message Format: Power Supply X Controller A, Connector B, Enclosure C Example: 2312 A power supply in the enclosure has an AC failure.: Power Supply 1, Controller 1, Connector 0, Enclosure 2
SCSI Temperature Probe	Message Format: Temperature Probe X Controller A, Connector B, Target ID C where "C" is the SCSI ID number of the EMM managing the temperature probe. Example: 2101 Temperature dropped below the minimum warning threshold: Temperature Probe 1, Controller 1, Connector 0, Target ID 6
SAS Temperature Probe	Message Format: Temperature Probe X Controller A, Connector B, Enclosure C Example: 2101 Temperature dropped below the minimum warning threshold: Temperature Probe 1, Controller 1, Connector 0, Enclosure 2
SCSI Fan	Message Format: Fan X Controller A, Connector B, Target ID C where "C" is the SCSI ID number of the EMM managing the fan. Example: 2121 Device returned to normal: Fan 1, Controller 1, Connector 0, Target ID 6
SAS Fan	Message Format: Fan X Controller A, Connector B, Enclosure C Example: 2121 Device returned to normal: Fan 1, Controller 1, Connector 0, Enclosure 2

Table 4-2. Message Format with Variables for Each Storage Object *(continued)*

Storage Object	Message Variables **A, B, C and X, Y, Z in the following examples are variables representing the storage object name or number.**
SCSI EMM	Message Format: EMM X Controller A, Connector B, Target ID C where "C" is the SCSI ID number of the EMM. Example: 2121 Device returned to normal: EMM 1, Controller 1, Connector 0, Target ID 6
SAS EMM	Message Format: EMM X Controller A, Connector B, Enclosure C Example: 2121 Device returned to normal: EMM 1, Controller 1, Connector 0, Enclosure 2

Alert Message Change History

The following table describes the changes made to the Storage Management alerts from the previous release of Storage Management to the current release.

Table 4-3. Alert Message Change History

Alert Message Change History		
Storage Management 3.1		**Comments**
Product Versions to which Changes Apply	Storage Management 3.1 Server Administrator 6.1 Dell OpenManage 6.1	
New Alerts	2370, 2383, 2384, 2385, 2386	
Deleted Alerts	2206 and 2207	

Table 4-3. Alert Message Change History *(continued)*

Alert Message Change History		
Modified Alerts	2060, 2075, 2087, 2125, 2192, 2200, 2250, 2261, 2287, 2289, 2293, 2294, 2295, 2327, 2367,	• The SNMP trap numbers were changed for these alerts. • Related alert information and descriptions were modified.
Documentation Change	Documentation updated to reflect changes in 2060, 2075, 2087, 2125, 2192, 2200, 2250, 2261,2287, 2289, 2293, 2294, 2295, 2327, 2367	• The SNMP trap number was changed for these alerts. • Related alert information and descriptions were modified.
Storage Management 3.0.2		**Comments**
Product Versions to which Changes Apply	Storage Management 3.0.2 Server Administrator 6.0.1 Dell OpenManage 6.0.1	
New Alerts	2382	

Alert Descriptions and Corrective Actions

The following sections describe alerts generated by the RAID or SCSI controllers supported by Storage Management. The alerts are displayed in the Server Administrator Alert subtab or through Windows Event Viewer. These alerts can also be forwarded as SNMP traps to other applications.

SNMP traps are generated for the alerts listed in the following sections. These traps are included in the Dell OpenManage Server Administrator Storage Management management information base (MIB). The SNMP traps for these alerts use all of the SNMP trap variables. For more information on SNMP support and the MIB, see the *Dell OpenManage SNMP Reference Guide*.

To locate an alert, scroll through the following table to find the alert number displayed on the Server Administrator Alert tab or search this file for the alert message text or number. See "Understanding Event Messages" for more information on severity levels.

For more information regarding alert descriptions and the appropriate corrective actions, see the online help.

Table 4-4. Storage Management Messages

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2048	Device failed	Critical / Failure / Error	**Cause**: A storage component such as a physical disk or an enclosure has failed. The failed component may have been identified by the controller while performing a task such as a rescan or a check consistency. **Action**: Replace the failed component. You can identify which disk has failed by locating the disk that has a red "X" for its status. Perform a rescan after replacing the failed component.	**Clear Alert Number**: 2121. **Related Alert Number**: 2095, 2201, 2203 **LRA Number**: 2051, 2061, 2071, 2081, 2091, 2101	754 804 854 904 954 1004 1054 1104 1154 1204

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2049	Physical disk removed	Warning / Non-critical	**Cause**: A physical disk has been removed from the disk group. This alert can also be caused by loose or defective cables or by problems with the enclosure. **Action**: If a physical disk was removed from the disk group, either replace the disk or restore the original disk. On some controllers, a removed disk has a red "X" for its status. On other controllers, a removed disk may have an `Offline` status or is not displayed on the user interface. Perform a rescan after replacing or restoring the disk. If a disk has not been removed from the disk group, then check for problems with the cables. See the online help for more information on checking the cables. Make sure that the enclosure is powered on. If the problem persists, check the enclosure documentation for further diagnostic information.	**Clear Alert Number:** 2052. **Related Alert Number:** 2054, 2057, 2056, 2076, 2079, 2081, 2083, 2129, 2202, 2204, 2270, 2292, 2299, 2369 **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2050	Physical disk offline	Warning / Non-critical	**Cause**: A physical disk in the disk group is offline. The user may have manually put the physical disk offline. **Action**: Perform a rescan. You can also select the offline disk and perform a **Make Online** operation.	**Clear Alert Number:** 2158. **Related Alert Number:** 2099, 2196 **LRA Number:** 2070	903
2051	Physical disk degraded	Warning / Non-critical	**Cause**: A physical disk has reported an error condition and may be degraded. The physical disk may have reported the error condition in response to a consistency check or other operation. **Action**: Replace the degraded physical disk. You can identify which disk is degraded by locating the disk that has a red "X" for its status. Perform a rescan after replacing the disk.	**Clear Alert Number:** None. **Related Alert Number:** 2070 **LRA Number:** None.	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2052	Physical disk inserted	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** None. **Related Alert Number:** 2065, 2305, 2367 **LRA Number:** None.	901
2053	Virtual disk created	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2054	Virtual disk deleted	Warning / Non-critical	**Cause**: A virtual disk has been deleted. **Performing a Reset Configuration** may detect that a virtual disk has been deleted and generate this alert. **Action**: None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2080	1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2055	Virtual disk configuration changed	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2056	Virtual disk failed	Critical / Failure / Error	**Cause**: One or more physical disks included in the virtual disk have failed. If the virtual disk is non-redundant (does not use mirrored or parity data), then the failure of a single physical disk can cause the virtual disk to fail. If the virtual disk is redundant, then more physical disks have failed than can be rebuilt using mirrored or parity information. **Action**: Create a new virtual disk and restore from a backup. The disk controller rebuilds the virtual disk by first configuring a hot spare for the disk, and then initiating a write operation to the disk. The write operation will initiate a rebuild of the disk.	**Clear Alert Number:** None. **Related Alert Number:** 2048, 2049, 2050, 2076, 2079, 2081, 2129, 2346 **LRA Number:** 2081	1204

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2057	Virtual disk degraded	Warning / Non-critical	**Cause 1:** This alert message occurs when a physical disk included in a redundant virtual disk fails. Because the virtual disk is redundant (uses mirrored or parity information) and only one physical disk has failed, the virtual disk can be rebuilt. **Action 1:** Configure a hot spare for the virtual disk if one is not already configured. Rebuild the virtual disk. When using an Expandable RAID Controller (PERC) PERC 3/SC, 3/DCL, 3/DC, 3/QC, 4/SC, 4/DC, 4e/DC, 4/Di, CERC ATA100/4ch, PERC 5/E, PERC 5/i or a Serial Attached SCSI (SAS) 5/iR controller, rebuild the virtual disk by first configuring a hot spare for the disk, and then initiating a write operation to the disk. The write operation will initiate a rebuild of the disk.	**Clear Alert Number:** None. **Related Alert Number:** 2048, 2049, 2050, 2076, 2079, 2081, 2123, 2129, 2346 **LRA Number:** 2080	1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2057 contd.			**Cause 2:** A physical disk in the disk group has been removed. **Action 2:** If a physical disk was removed from the disk group, either replace the disk or restore the original disk. You can identify which disk has been removed by locating the disk that has a red "X" for its status. Perform a rescan after replacing the disk.		
2058	Virtual disk check consistency started	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** 2085. **Related Alert Number:** None. **LRA Number:** None.	1201
2059	Virtual disk format started	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** 2086. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2060	Copy of data started on physical disk 1 from physical disk 2.	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** None. **Related Alert Number:** 2075 **LRA Number:** None.	901
2061	Virtual disk initialization started	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** 2088. **Related Alert Number:** None. **LRA Number:** None.	1201
2062	Physical disk initialization started	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None.	**Clear Alert Number:** 2089. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2063	Virtual disk reconfiguration started	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** 2090. **Related Alert Number:** None. **LRA Number:** None.	1201
2064	Virtual disk rebuild started	OK / Normal / Informational	**Cause**: This alert is for informational purposes. **Action**: None	**Clear Alert Number:** 2091. **Related Alert Number:** None. **LRA Number:** None.	1201
2065	Physical disk rebuild started	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2092. **Related Alert Number:** 2099, 2121, 2196 **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2067	Virtual disk check consistency cancelled	OK / Normal / Informational	**Cause:** The check consistency operation was cancelled because a physical disk in the array has failed or because a user cancelled the check consistency operation. **Action:** If the physical disk failed, then replace the physical disk. You can identify which disk failed by locating the disk that has a red "X" for its status. Perform a rescan after replacing the disk. When performing a consistency check, be aware that the consistency check can take a long time. The time it takes depends on the size of the physical disk or the virtual disk.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2070	Virtual disk initialization cancelled	OK / Normal / Informational	**Cause**: The virtual disk initialization cancelled because a physical disk included in the virtual disk has failed or because a user cancelled the virtual disk initialization. **Action**: If a physical disk failed, then replace the physical disk. You can identify which disk has failed by locating the disk that has a red "X" for its status. Perform a rescan after replacing the disk. Restart the format physical disk operation. Restart the virtual disk initialization.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2074	Physical disk rebuild cancelled	OK / Normal / Informational	**Cause:** The user has cancelled the rebuild operation. **Action:** Restart the rebuild operation.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2075	Copy of data completed on physical disk %2 from physical disk %1	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2060. **LRA Number:** None	901
2076	Virtual disk Check Consistency failed	Critical / Failure / Error	**Cause:** A physical disk included in the virtual disk failed or there is an error in the parity information. A failed physical disk can cause errors in parity information. **Action:** Replace the failed physical disk. You can identify which disk has failed by locating the disk that has a red "X" for its status. Rebuild the physical disk. When finished, restart the check consistency operation.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2081	1204

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2077	Virtual disk format failed	Critical / Failure / Error	**Cause:** A physical disk included in the virtual disk failed. **Action:** Replace the failed physical disk. You can identify which physical disk has failed by locating the disk that has a red "X" for its status. Rebuild the physical disk. When finished, restart the virtual disk format operation.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2081	1204
2079	Virtual disk initialization failed	Critical / Failure / Error	**Cause:** A physical disk included in the virtual disk has failed or a user has cancelled the initialization. **Action:** If a physical disk has failed, then replace the physical disk.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2081	1204
2080	Physical disk initialization failed	Critical / Failure / Error	**Cause:** The physical disk has failed or is corrupt. **Action:** Replace the failed or corrupt disk. You can identify a disk that has failed by locating the disk that has a red “X” for its status. Restart the initialization.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2081	Virtual disk reconfiguration failed	Critical / Failure / Error	**Cause:** A physical disk included in the virtual disk has failed or is corrupt. A user may also have cancelled the reconfiguration. **Action:** Replace the failed or corrupt disk. You can identify a disk that has failed by locating the disk that has a red "X" for its status. If the physical disk is part of a redundant array, then rebuild the physical disk. When finished, restart the reconfiguration.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2081	1204
2082	Virtual disk rebuild failed	Critical / Failure / Error	**Cause:** A physical disk included in the virtual disk has failed or is corrupt. A user may also have cancelled the rebuild. **Action:** Replace the failed or corrupt disk. You can identify a disk that has failed by locating the disk that has a red "X" for its status. Restart the virtual disk rebuild.	**Clear Alert Number:** None. **Related Alert Number:** 2048 **LRA Number:** 2081	1204

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2083	Physical disk rebuild failed	Critical / Failure / Error	**Cause:** A physical disk included in the virtual disk has failed or is corrupt. A user may also have cancelled the rebuild. **Action:** Replace the failed or corrupt disk. You can identify a disk that has failed by locating the disk that has a red "X" for its status. Rebuild the virtual disk rebuild.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904
2085	Virtual disk check consistency completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2085 is a clear alert for alert 2058. **Related Alert Number:** None. **LRA Number:** None.	1201
2086	Virtual disk format completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2086 is a clear alert for alert 2059. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2087	Copy of data resumed from physical disk %2 to physical disk %1	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** None **Related Alert Number:** 260. **LRA Number:** None.	901
2088	Virtual disk initialization completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2088 is a clear alert for alerts 2061 and 2136. **Related Alert Number:** None. **LRA Number:** None.	1201
2089	Physical disk initialization completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2089 is a clear alert for alert 2062. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2090	Virtual disk reconfiguration completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2090 is a clear alert for alert 2063. **Related Alert Number:** None. **LRA Number:** None.	1201
2091	Virtual disk rebuild completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2091 is a clear alert for alert 2064. **Related Alert Number:** None. **LRA Number:** None.	1201
2092	Physical disk rebuild completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2092 is a clear alert for alert 2065. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2094	Predictive Failure reported.	Warning / Non-critical	**Cause:** The physical disk is predicted to fail. Many physical disks contain Self Monitoring Analysis and Reporting Technology (SMART). When enabled, SMART monitors the health of the disk based on indications such as the number of write operations that have been performed on the disk. **Action:** Replace the physical disk. Even though the disk may not have failed yet, it is strongly recommended that you replace the disk. If this disk is part of a redundant virtual disk, perform the **Offline** task on the disk; replace the disk; and then assign a hot spare and the rebuild will start automatically.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2094 cond.			If this disk is a hot spare, then unassign the hot spare; perform the **Prepare to Remove** task on the disk; replace the disk; and assign the new disk as a hot spare. **CAUTION: If this disk is part of a nonredundant disk, back up your data immediately. If the disk fails, you will not be able to recover the data.**		
2095	SCSI sense data.	OK / Normal / Informational	**Cause:** A SCSI device experienced an error, but may have recovered. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** 2273 **LRA Number:** None.	751, 851, 901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2098	Global hot spare assigned	OK / Normal / Informational	**Cause:** A user has assigned a physical disk as a global hot spare. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2277 **LRA Number:** None.	901
2099	Global hot spare unassigned	OK / Normal / Informational	**Cause:** A user has unassigned a physical disk as a global hot spare. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2100	Temp-erature exceeded the maximum warning threshold	Warning / Non-critical	**Cause:** The physical disk enclosure is too hot. A variety of factors can cause the excessive temperature. For example, a fan may have failed, the thermostat may be set too high, or the room temperature may be too hot. **Action:** Check for factors that may cause overheating. For example, verify that the enclosure fan is working. You should also check the thermostat settings and examine whether the enclosure is located near a heat source. Make sure the enclosure has enough ventilation and that the room temperature is not too hot. See the physical disk enclosure documentation for more diagnostic information.	**Clear Alert Number:** 2353. **Related Alert Number:** 2112 **LRA Number:** 2090	1053

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2101	Temperature dropped below the minimum warning threshold	Warning / Non-critical	**Cause:** The physical disk enclosure is too cool. **Action:** Check if the thermostat setting is too low and if the room temperature is too cool.	**Clear Alert Number:** 2353. **Related Alert Number:** None. **LRA Number:** 2090	1053
2102	Temperature exceeded the maximum failure threshold	Critical / Failure / Error	**Cause:** The physical disk enclosure is too hot. A variety of factors can cause the excessive temperature. For example, a fan may have failed, the thermostat may be set too high, or the room temperature may be too hot. **Action:** Check for factors that may cause overheating. For example, verify that the enclosure fan is working. You should also check the thermostat settings and examine whether the enclosure is located near a heat source. Make sure the enclosure has enough ventilation and that the room temperature is not too hot. See the physical disk enclosure documentation for more diagnostic information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	1054

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2103	Temperature dropped below the minimum failure threshold	Critical / Failure / Error	**Cause:** The physical disk enclosure is too cool. **Action:** Check if the thermostat setting is too low and if the room temperature is too cool.	**Clear Alert Number:** None. **Related Alert Number:** 2112 **LRA Number:** 2091	1054
2104	Controller battery is recondi-tioning	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2105. **Related Alert Number:** None. **LRA Number:** None.	1151
2105	Controller battery recondition is completed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2105 is a clear alert for alert 2104. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2106	Smart FPT exceeded	Warning / Non-critical	**Cause:** A disk on the specified controller has received a SMART alert (predictive failure) indicating that the disk is likely to fail in the near future. **Action:** Replace the disk that has received the SMART alert. If the physical disk is a member of a non-redundant virtual disk, then back up the data before replacing the disk. **CAUTION: Removing a physical disk that is included in a non-redundant virtual disk will cause the virtual disk to fail and may cause data loss.**	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2107	Smart configuration change	Critical / Failure / Error	**Cause:** A disk has received a SMART alert (predictive failure) after a configuration change. The disk is likely to fail in the near future. **Action:** Replace the disk that has received the SMART alert. If the physical disk is a member of a non-redundant virtual disk, then back up the data before replacing the disk. **CAUTION: Removing a physical disk that is included in a non-redundant virtual disk will cause the virtual disk to fail and may cause data loss.**	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2108	Smart warning	Warning / Non-critical	**Cause:** A disk has received a SMART alert (predictive failure). The disk is likely to fail in the near future. **Action:** Replace the disk that has received the SMART alert. If the physical disk is a member of a non-redundant virtual disk, then back up the data before replacing the disk. **CAUTION: Removing a physical disk that is included in a non-redundant virtual disk will cause the virtual disk to fail and may cause data loss.**	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2109	SMART warning temperature	Warning / Non-critical	**Cause:** A disk has reached an unacceptable temperature and received a SMART alert (predictive failure). The disk is likely to fail in the near future. **Action 1:** Determine why the physical disk has reached an unacceptable temperature. A variety of factors can cause the excessive temperature. For example, a fan may have failed, the thermostat may be set too high, or the room temperature may be too hot or cold. Verify that the fans in the server or enclosure are working. If the physical disk is in an enclosure, you should check the thermostat settings and examine whether the enclosure is located near a heat source.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2109 contd			Make sure the enclosure has enough ventilation and that the room temperature is not too hot. See the physical disk enclosure documentation for more diagnostic information. **Action 2:** If you cannot identify why the disk has reached an unacceptable temperature, then replace the disk. If the physical disk is a member of a non-redundant virtual disk, then back up the data before replacing the disk. **CAUTION: Removing a physical disk that is included in a non-redundant virtual disk will cause the virtual disk to fail and may cause data loss.**		

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2110	SMART warning degraded	Warning / Non-critical	**Cause:** A disk is degraded and has received a SMART alert (predictive failure). The disk is likely to fail in the near future. **Action:** Replace the disk that has received the SMART alert. If the physical disk is a member of a non-redundant virtual disk, then back up the data before replacing the disk. **CAUTION: Removing a physical disk that is included in a non-redundant virtual disk will cause the virtual disk to fail and may cause data loss.**	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903
2111	Failure prediction threshold exceeded due to test	Warning / Non-critical	**Cause:** A disk has received a SMART alert (predictive failure) due to test conditions. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2112	Enclosure was shut down	Critical / Failure / Error	**Cause:** The physical disk enclosure is either hotter or cooler than the maximum or minimum allowable temperature range. **Action:** Check for factors that may cause overheating or excessive cooling. For example, verify that the enclosure fan is working. You should also check the thermostat settings and examine whether the enclosure is located near a heat source. Make sure the enclosure has enough ventilation and that the room temperature is not too hot or too cold. See the enclosure documentation for more diagnostic information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	854

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2114	A consistency check on a virtual disk has been paused (suspended)	OK / Normal / Informational	**Cause:** The check consistency operation on a virtual disk was paused by a user. **Action:** To resume the check consistency operation, right-click the virtual disk in the tree view and select **Resume Check Consistency**.	**Clear Alert Number:** 2115. **Related Alert Number:** None. **LRA Number:** None.	1201
2115	A consistency check on a virtual disk has been resumed	OK / Normal / Informational	**Cause:** The check consistency operation on a virtual disk has resumed processing after being paused by a user. This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2115 is a clear alert for alert 2114. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2116	A virtual disk and its mirror have been split	OK / Normal / Informational	**Cause:** A user has caused a mirrored virtual disk to be split. When a virtual disk is mirrored, its data is copied to another virtual disk in order to maintain redundancy. After being split, both virtual disks retain a copy of the data, although because the mirror is no longer intact, updates to the data are no longer copied to the mirror. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2117	A mirrored virtual disk has been unmirrored	OK / Normal / Informational	**Cause:** A user has caused a mirrored virtual disk to be unmirrored. When a virtual disk is mirrored, its data is copied to another virtual disk in order to maintain redundancy. After being unmirrored, the disk formerly used as the mirror returns to being a physical disk and becomes available for inclusion in another virtual disk. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2118	Change write policy	OK / Normal / Informational	**Cause:** A user has changed the write policy for a virtual disk. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2120	Enclosure firmware mismatch	Warning / Non-critical	**Cause:** The firmware on the EMM is not the same version. It is required that both modules have the same version of the firmware. This alert may be caused when a user attempts to insert an EMM module that has a different firmware version than an existing module. **Action:** Download the same version of the firmware to both EMM modules.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2090	853

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2121	Device returned to normal	OK / Normal / Informational	**Cause:** A device that was previously in an error state has returned to a normal state. For example, if an enclosure became too hot and subsequently cooled down, then you may receive this alert. This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2121 is a clear alert for alert 2048. **Related Alert Number:** 2050, 2065, 2158 **LRA Number:** None.	752 802 852 902 952 1002 1052 1102 1152 1202

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2122	Redundancy degraded	Warning / Non-critical	**Cause:** One or more of the enclosure components has failed. For example, a fan or power supply may have failed. Although the enclosure is currently operational, the failure of additional components could cause the enclosure to fail. **Action:** Identify and replace the failed component. To identify the failed component, select the enclosure in the tree view and click the **Health** subtab. Any failed component will be identified with a red "X" on the enclosure's **Health** subtab. Alternatively, you can select the Storage object and click the **Health** subtab.	**Clear Alert Status:** 2124. **Related Alert Number:** 2048 **LRA Number:** 2090	1305

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2122 contd.			The controller status displayed on the **Health** subtab indicates whether a controller has a failed or degraded component. See the enclosure documentation for information on replacing enclosure components and for other diagnostic information.		

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2123	Redundancy lost	Warning / Non-critical	**Cause:** A virtual disk or an enclosure has lost data redundancy. In the case of a virtual disk, one or more physical disks included in the virtual disk have failed. Due to the failed physical disk or disks, the virtual disk is no longer maintaining redundant (mirrored or parity) data. The failure of an additional physical disk will result in lost data. In the case of an enclosure, more than one enclosure component has failed. For example, the enclosure may have suffered the loss of all fans or all power supplies. **Action:** Identify and replace the failed components. To identify the failed component, select the Storage object and click the **Health** subtab.	**Clear Alert Number:** 2124. **Related Alert Number:** 2048, 2049, 2057 **LRA Number:** 2080, 2090	1306

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2123 contd.			The controller status displayed on the **Health** subtab indicates whether a controller has a failed or degraded component. Click the controller that displays a Warning or Failed status. This action displays the controller **Health** subtab which displays the status of the individual controller components. Continue clicking the components with a Warning or Health status until you identify the failed component. See the online help for more information. See the enclosure documentation for information on replacing enclosure components and for other diagnostic information.		

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2124	Redundancy normal	OK / Normal / Informational	**Cause:** Data redundancy has been restored to a virtual disk or an enclosure that previously suffered a loss of redundancy. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** Alert 2124 is a clear alert for alerts 2122 and 2123. **Related Alert Number:** None. **LRA Number:** None.	1304
2125	Controller cache preserved for missing or offline virtual disk	Warning / Non-critical	**Cause:** Virtual disk controller was disconnected, during IO operation. **Action:** Import foreign disks, if any. Check if the enclosure containing the virtual disk is disconnected from the controller.	**Clear Alert Number:** No **Related Alert Number:** No **LRA Number:** No	1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2126	SCSI sense sector reassign	Warning / Non-critical	**Cause:** A sector of the physical disk is corrupted and data cannot be maintained on this portion of the disk. This alert is for informational purposes. **CAUTION: Any data residing on the corrupt portion of the disk may be lost and you may need to restore your data from backup.** **Action:** If the physical disk is part of a non-redundant virtual disk, then back up the data and replace the physical disk. **CAUTION: Removing a physical disk that is included in a non-redundant virtual disk will cause the virtual disk to fail and may cause data loss.** If the disk is part of a redundant virtual disk, then any data residing on the corrupt portion of the disk will be reallocated elsewhere in the virtual disk.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2127	Background initialization (BGI) started	OK / Normal / Informational	**Cause:** BGI of a virtual disk has started. This alert is for informational purposes. **Action:** None	**Clear Alert Status:** 2130. **Related Alert Number:** None. **LRA Number:** None.	1201
2128	BGI cancelled	OK / Normal / Informational	**Cause:** BGI of a virtual disk has been cancelled. A user or the firmware may have stopped BGI. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2129	BGI failed	Critical / Failure / Error	**Cause:** BGI of a virtual disk has failed. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2340 **LRA Number:** 2081	1204
2130	BGI completed	OK / Normal / Informational	**Cause:** BGI of a virtual disk has completed. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** Alert 2130 is a clear alert for alert 2127. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2131	Firmware version mismatch	Warning / Non-critical	**Cause:** The firmware on the controller is not a supported version. **Action:** Install a supported version of the firmware. If you do not have a supported version of the firmware available, you can download it from the Dell Support site at **support.dell.com** or check with your support provider for information on how to obtain the most current firmware.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2132	Driver version mismatch	Warning / Non-critical	**Cause:** The controller driver is not a supported version. **Action:** Install a supported version of the driver.. If you do not have a supported driver version available, you can download it from the Dell Support site at **support.dell.com** or you can check with your support provider for information on how to obtain the most current driver.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2135	Array Manager is installed on the system **NOTE:** This is not supported on Dell OpenManage Server Administrator version 6.0.1.	Warning / Non-critical	**Cause:** Storage Management has been installed on a system that has an Array Manager installation. **Action:** Installing Storage Management and Array Manager on the same system is not a supported configuration. Uninstall either Storage Management or Array Manager.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2050	103
2136	Virtual disk initialization	OK / Normal / Informational	**Cause:** Virtual disk initialization is in progress. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2088. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2137	Communication timeout	Warning / Non-critical	**Cause:** The controller is unable to communicate with an enclosure. There are several reasons why communication may be lost. For example, there may be a bad or loose cable. An unusual amount of I/O may also interrupt communication with the enclosure. In addition, communication loss may be caused by software, hardware, or firmware problems, bad or failed power supplies, and enclosure shutdown. When viewed in the Alert Log, the description for this event displays several variables. These variables are: controller and enclosure names, type of communication problem, return code, and SCSI status.	**Clear Alert Number:** 2162. **Related Alert Number:** None. **LRA Number:** 2090	853

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2137 contd.			**Action:** Check for problems with the cables. See the online help for more information on checking the cables. You should also check to see if the enclosure has degraded or failed components. To do so, select the enclosure object in the tree view and click the **Health** subtab. The **Health** subtab displays the status of the enclosure components. Verify that the controller has supported driver and firmware versions installed and that the EMMs are each running the same version of supported firmware.		
2138	Enclosure alarm enabled	OK / Normal / Informational	**Cause:** A user has enabled the enclosure alarm. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2139	Enclosure alarm disabled	OK / Normal / Informational	**Cause:** A user has disabled the enclosure alarm. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851
2140	Dead disk segments restored	OK / Normal / Informational	**Cause:** Disk space that was formerly "dead" or inaccessible to a redundant virtual disk has been restored. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2141	Physical disk dead segments recovered	OK / Normal / Informational	**Cause:** Portions of the physical disk were formerly inaccessible. The disk space from these dead segments has been recovered and is now usable. Any data residing on these dead segments has been lost. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2142	Controller rebuild rate has changed	OK / Normal / Informational	**Cause:** A user has changed the controller rebuild rate. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2143	Controller alarm enabled	OK / Normal / Informational	**Cause:** A user has enabled the controller alarm. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2144	Controller alarm disabled	OK / Normal / Informational	**Cause:** A user has disabled the controller alarm. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2145	Controller battery low	Warning / Non-critical	**Cause:** The controller battery charge is low. **Action:** Recondition the battery. See the online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2100	1153
2146	Bad block replacement error	Warning / Non-critical	**Cause:** A portion of a physical disk is damaged. **Action:** See the *Dell OpenManage Server Administrator Storage Management* online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2147	Bad block sense error	Warning / Non-critical	**Cause:** A portion of a physical disk is damaged. **Action:** See the *Dell OpenManage Server Administrator Storage Management* online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2148	Bad block medium error	Warning / Non-critical	**Cause:** A portion of a physical disk is damaged. **Action:** See the *Dell OpenManage Server Administrator Storage Management* online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2149	Bad block extended sense error	Warning / Non-critical	**Cause:** A portion of a physical disk is damaged. **Action:** See the *Dell OpenManage Server Administrator Storage Management* online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2150	Bad block extended medium error	Warning / Non-critical	**Cause:** A portion of a physical disk is damaged. **Action:** See the *Dell OpenManage Server Administrator Storage Management* online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2151	Enclosure asset tag changed	OK / Normal / Informational	**Cause:** A user has changed the enclosure asset tag. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851
2152	Enclosure asset name changed	OK / Normal / Informational	**Cause:** A user has changed the enclosure asset name. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851
2153	Service tag changed	OK / Normal / Informational	**Cause:** An enclosure service tag was changed. In most circumstances, this service tag should only be changed by Dell support or your service provider. **Action:** Ensure that the tag was changed under authorized circumstances.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2154	Maximum temperature probe warning threshold value changed	OK / Normal / Informational	**Cause:** A user has changed the value for the maximum temperature probe warning threshold. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1051
2155	Minimum temperature probe warning threshold value changed	OK / Normal / Informational	**Cause:** A user has changed the value for the minimum temperature probe warning threshold. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1051
2156	Controller alarm has been tested	OK / Normal / Informational	**Cause:** The controller alarm test has run successfully. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2157	Controller configuration has been reset	OK / Normal / Informational	**Cause:** A user has reset the controller configuration. See the online help for more information. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2158	Physical disk online	OK / Normal / Informational	**Cause:** An offline physical disk has been made online. This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2158 is a clear alert for alert 2050. **Related Alert Number:** 2048, 2050, 2065, 2099, 2121, 2196, 2201, 2203 **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2159	Virtual disk renamed	OK / Normal / Informational	**Cause:** A user has renamed a virtual disk. When renaming a virtual disk on a PERC 3/SC, 3/DCL, 3/DC, 3/QC, 4/SC, 4/DC, 4e/DC, 4/Di, CERC ATA100/4ch, PERC 5/E, PERC 5/i or SAS 5/iR controller, this alert displays the new virtual disk name. On the PERC 3/SC, 3/DCL, 3/DC, 3/QC, 4/SC, 4/DC, 4e/DC, 4/Di, 4/IM, 4e/Si, 4e/Di, and CERC ATA 100/4ch controllers, this alert displays the original virtual disk name. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2162	Communication regained	OK / Normal / Informational	**Cause:** Communication with an enclosure has been restored. This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2162 is a clear alert for alerts 2137 and 2292. **Related Alert Number:** None. **LRA Number:** None.	851

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2163	Rebuild completed with errors	Critical / Failure / Error	**Cause:** You might be attempting a RAID configuration that is not supported by the controller. **Action:** See the Storage Management online help for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904
2164	See the Readme file for a list of validated controller driver versions	OK / Normal / Informational	**Cause:** Storage Management is unable to determine whether the system has the minimum required versions of the RAID controller drivers. This alert is for informational purposes. **Action:** See the Readme file for driver and firmware requirements. In particular, if Storage Management experiences performance problems, you should verify that you have the minimum supported versions of the drivers and firmware installed.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	101

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2165	The RAID controller firmware and driver validation was not performed. The configuratio n file cannot be opened.	Warning / Non-critical	**Cause:** Storage Management is unable to determine whether the system has the minimum required versions of the RAID controller firmware and drivers. This situation may occur for a variety of reasons. For example, the installation directory path to the configuration file may not be correct. The configuration file may also have been removed or renamed. **Action:** Reinstall Storage Management	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2166	The RAID controller firmware and driver validation was not performed. The config-uration file is out of date or corrupted.	Warning / Non-critical	**Cause:** Storage Management is unable to determine whether the system has the minimum required versions of the RAID controller firmware and drivers. This situation has occurred because a configuration file is unreadable or missing data. The configuration file may be corrupted. **Action:** Reinstall Storage Management.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2167	The current kernel version and the non-RAID SCSI driver version are older than the minimum required levels. See readme.txt for a list of validated kernel and driver versions.	Warning / Non-critical	**Cause:** The version of the kernel and the driver do not meet the minimum requirements. Storage Management may not be able to display the storage or perform storage management functions until you have updated the system to meet the minimum requirements. **Action:** See the Readme file for a list of validated kernel and driver versions. Update the system to meet the minimum requirements and then reinstall Storage Management.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2050	103

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2168	The non-RAID SCSI driver version is older than the minimum required level. See readme.txt for the validated driver version.	Warning / Non-critical	**Cause:** The version of the driver does not meet the minimum requirements. Storage Management may not be able to display the storage or perform storage management functions until you have updated the system to meet the minimum requirements. **Action:** See the Readme file for the validated driver version. Update the system to meet the minimum requirements and then reinstall Storage Management.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2050	103
2169	The controller battery needs to be replaced.	Critical / Failure / Error	**Cause:** The controller battery cannot recharge. The battery may be old or it may have been already recharged the maximum number of times. In addition, the battery charger may not be working. **Action:** Replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** 2118 **LRA Number:** 2101	1154

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2170	The controller battery charge level is normal.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2171	The controller battery temperature is above normal.	Warning / Non-critical	**Cause:** The battery may be recharging, the room temperature may be too hot, or the fan in the system may be degraded or failed. **Action:** If this alert was generated due to a battery recharge, the situation will correct when the recharge is complete. You should also check if the room temperature is normal and that the system components are functioning properly.	**Clear Alert Number:** 2172. **Related Alert Number:** None. **LRA Number:** 2100	1153

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2172	The controller battery temperature is normal.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2172 is a clear alert for alert 2171. **Related Alert Number:** None. **LRA Number:** None.	1151
2173	Unsupported configuration detected. The SCSI rate of the enclosure management modules (EMMs) is not the same. EMM0 %1 EMM1 %2	Warning / Non-critical	**Cause:** The EMMs in the enclosure have a different SCSI rate. This is an unsupported configuration. All EMMs in the enclosure should have the same SCSI rate. The % (percent sign) indicates a substitution variable. The text for this substitution variable is displayed with the alert in the Alert Log and can vary depending on the situation. **Action:** No action required.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2090	853

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2174	The controller battery has been removed.	Warning / Non-critical	**Cause:** The controller cannot communicate with the battery, the battery may be removed, or the contact point between the controller and the battery may be burnt or corroded. **Action:** Replace the battery if it has been removed. If the contact point between the battery and the controller is burnt or corroded, you will need to replace either the battery or the controller, or both. See the hardware documentation for information on how to safely access, remove, and replace the battery.	**Clear Alert Number:** None. **Related Alert Number:** 2188, 2318 **LRA Number:** 2100	1153
2175	The controller battery has been replaced.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2176	The controller battery Learn cycle has started.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2177. **Related Alert Number:** None. **LRA Number:** None.	1151
2177	The controller battery Learn cycle has completed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2177 is a clear alert for alert 2176. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2178	The controller battery Learn cycle has timed out.	Warning / Non-critical	**Cause:** The controller battery must be fully charged before the Learn cycle can begin. The battery may be unable to maintain a full charge causing the Learn cycle to timeout. Additionally, the battery must be able to maintain cached data for a specified period of time in the event of a power loss. For example, some batteries maintain cached data for 24 hours. If the battery is unable to maintain cached data for the required period of time, then the Learn cycle will timeout. **Action:** Replace the battery pack as the battery is unable to maintain a full charge.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2100	1153
2179	The controller battery Learn cycle has been postponed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2180	The controller battery Learn cycle will start in %1 days.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. The %1 indicates a substitution variable. The text for this substitution variable is displayed with the alert in the Alert Log and can vary depending on the situation. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2181	The controller battery Learn cycle will start in %1 hours.	OK / Normal / Informational	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is displayed with the alert in the Alert Log and can vary depending on the situation. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2182	An invalid SAS configuration has been detected.	Critical / Failure / Error	**Cause:** The controller and attached enclosures are not cabled correctly. **Action:** See the hardware documentation for information on correct cabling configurations.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2183	Replace member operation failed on physical disk %1	Critical / Failure / Error	**Cause:** The physical disk being replaced has failed. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2060. **LRA Number:** None	904
2184	Replace member operation cancelled on physical disk	OK / Normal / Informational	**Cause:** User cancelled the replace member operation. **Action:** None	**Clear Alert Number:** None **Related Alert Number:** 2060 **LRA Number:** None	901
2185	Replace member operation stopped for rebuild of hot spare on physical disk	Warning/ Non-critical	**Cause:** This alert is provided for informational purposes **Action:** None	**Clear Alert Number:** None **Related Alert Number:** 2060 **LRA Number:** None	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2186	The controller cache has been discarded.	Warning / Non-critical	**Cause:** The controller has flushed the cache and any data in the cache has been lost. This may happen if the system has memory or battery problems that cause the controller to distrust the cache. Although user data may have been lost, this alert does not always indicate that relevant or user data has been lost. **Action:** Verify that the battery and memory are functioning properly.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2187	Single-bit ECC error limit exceeded.	Warning / Non-critical	**Cause:** The system memory is malfunctioning. **Action:** Replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2188	The controller write policy has been changed to Write Through.	OK / Normal / Informational	**Cause:** The controller battery is unable to maintain cached data for the required period of time. For example, if the required period of time is 24 hours, the battery is unable to maintain cached data for 24 hours. It is normal to receive this alert during the battery Learn cycle as the Learn cycle discharges the battery before recharging it. When discharged, the battery cannot maintain cached data. **Action:** Check the health of the battery. If the battery is weak, replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2189	The controller write policy has been changed to Write Back.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2190	The controller has detected a hot-plugged enclosure.	OK / Normal / Informational	**Cause:** The SAS controller with firware version 6.1 or later has detected a hot-plugged enclosure. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2191	Multiple enclosures are attached to the controller. This is an unsupported configuration.	Critical / Failure / Error	**Cause:** There are too many enclosures are attached to the controller port. When the enclosure limit is exceeded, the controller loses contact with all enclosures attached to the port. **Action:** Remove the last enclosure. You must remove the enclosure that has been added last and is causing the enclosure limit to exceed.	**Clear Alert Number:** None. **Related Alert Number:** 2211 **LRA Number:** 2091	854

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2192	The virtual disk Check Consistency has made corrections.	OK / Normal / Informational	**Cause:** The virtual disk Check Consistency has identified errors and made corrections. For example, the Check Consistency may have encountered a bad disk block and remapped the disk block to restore data consistency. This alert is for informational purposes. **Action:** This alert is for informational purposes only and no additional action is required. As a precaution, monitor the Alert Log for other errors related to this virtual disk. If problems persist, contact Dell Technical Support.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1203
2193	The virtual disk reconfiguration has resumed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2194	The virtual disk Read policy has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2195	Dedicated hot spare assigned. Physical disk %1	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** 2196. **Related Alert Number:** None. **LRA Number:** None.	1201
2196	Dedicated hot spare unassigned. Physical disk %1	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Status:** Alert 2196 is a clear alert for alert 2195. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2197	Replace member operation has stopped for rebuild.	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None	**Clear Alert Number**: None **Related Alert Number:** 260. **LRA Number:** None.	903
2198	The physical disk is too small to be used for Replace member operation	OK / Normal / Informational	**Cause:** Replace member operation cannot be performed on the physical disk as the target disk is smaller for than the source disk. This alert is for informational purposes. **Action:** None	**Clear Alert Number**: None **Related Alert Number:** None **LRA Number:** None	903
2199	The virtual disk cache policy has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2200	Replace operation is not possible, because the physical disk type or bus protocol is different from the virtual disk type or bus protocol.	Warning/ Noncritical	**Cause:** This alert is provided for informational purposes. Replace member operation cannot be performed because the target physical disk is of a different type (SAS HDD/SATA HDD/ SATA SSD) from the rest of the virtual disk. SAS HDD, SATA HDD, and SATA SSD are not supported on the same virtual disk. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	903
2201	A global hot spare failed.	Warning / Non-critical	**Cause:** The controller is not able to communicate with a disk that is assigned as a dedicated hot spare. The disk may have been removed. There may also be a bad or loose cable. **Action:** Check if the disk is healthy and that it has not been removed. Check the cables. If necessary, replace the disk and reassign the hot spare.	**Clear Alert Number:** None. **Related Alert Number:** 2048 **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2202	A global hot spare has been removed.	OK / Normal / Informational	**Cause:** The controller is unable to communicate with a disk that is assigned as a global hot spare. The disk may have been removed. There may also be a bad or loose cable. **Action:** Check if the disk is healthy and that it has not been removed. Check the cables. If necessary, replace the disk and reassign the hot spare.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901
2203	A dedicated hot spare failed.	Warning / Non-critical	**Cause:** The controller is unable to communicate with a disk that is assigned as a dedicated hot spare. The disk may have failed or been removed. There may also be a bad or loose cable. **Action:** Check if the disk is healthy and that it has not been removed. Check the cables. If necessary, replace the disk and reassign the hot spare.	**Clear Alert Number:** None. **Related Alert Number:** 2048 **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2204	A dedicated hot spare has been removed.	OK / Normal / Informational	**Cause:** The controller is unable to communicate with a disk that is assigned as a dedicated hot spare. The disk may have been removed. There may also be a bad or loose cable. **Action:** Check if the disk is healthy and that it has not been removed. Check the cables. If necessary, replace the disk and reassign the hot spare.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901
2205	A dedicated hot spare has been automaticall y unassigned.	OK / Normal / Informational	**Cause:** The hot spare is no longer required because the virtual disk it was assigned to has been deleted. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** 2098, 2161, 2196 **LRA Number:** None.	901
2210	Battery requires reconditioni ng. Initiate the battery learn cycle.	Warning / Non-critical	**Cause:** Battery requires reconditioning. **Action:** Initiate the battery learn cycle.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	1153

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2211	The physical disk is not supported.	Warning / Non-critical	**Cause:** The physical disk may not have a supported version of the firmware or the disk may not be supported by Dell. **Action:** If the disk is supported by Dell, update the firmware to a supported version. If the disk is not supported by Dell, replace the disk with one that is supported.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903
2212	The controller battery temperature is above normal.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2213	Recharge count maximum exceeded	Warning / Non-critical	**Cause:** The battery has been recharged more times than the battery recharge limit allows. **Action:** Replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2100	1153

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2214	Battery charge in progress	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2215	Battery charge process interrupted	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2216	The battery learn mode has changed to auto.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2217	The battery learn mode has changed to warn.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2218	None of the Controller Property are changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** You should change at least one controller property and run the command again.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2219	Abort Check Consistency on Error, Allow Revertible Hot Spare and Replace Member, Auto Replace Member on Predictive Failure, and Load balance changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2220	Allow Revertible Hot Spare and Replace Member, Auto Replace Member operation on Predictive Failure, and Load balance changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2221	Auto Replace Member operation on Predictive Failure, Abort Check Consistency on Error, and Load balance changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2222	Load balance and Auto Replace Member operation on Predictive Failure changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2223	Abort Check Consistency on Error, Allow Revertible Hot Spare and Replace Member, and Load balance changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2224	Allow Revertible Hot Spare and Replace Member and Load balance changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2225	Abort Check Consistency on Error and Load balance changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2226	Load balance changed	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2227	Abort Check Consistency on Error, Allow Revertible Hot Spare and Replace Member, and Auto Replace Member Operation on Predictive Failure changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2228	Allow Revertible Hot Spare and Replace Member and Auto Replace Member operation on Predictive Failure changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2229	Abort Check Consistency on Error and Auto Replace Member operation on Predictive Failure changed.	OK / Normal / Informational	**Cause:** This alert is generated due to user initiated change in controller properties. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2230	Auto Replace Member operation on Predictive Failure changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2231	Allow Revertible Hot Spare and Replace Member and Abort Check Consistency on Error changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2232	The controller alarm is silenced.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2233	The Background initialization (BGI) rate has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2234	The Patrol Read rate has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2235	The Check Consistency rate has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2236	Allow Revertible Hot Spare and Replace Member property changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2237	Abort Check Consistency on Error modified.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2238	The controller debug log file has been exported.	OK / Normal / Informational	**Cause:** The user has attempted to export the controller debug log. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2239	A foreign configuration has been cleared.	OK / Normal / Informational	**Cause:** The user has attempted to clear a foreign configuration. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2240	A foreign configuration has been imported.	OK / Normal / Informational	**Cause:** The user has attempted to import a foreign configuration. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2241	The Patrol Read mode has changed.	OK / Normal / Informational	**Cause:** The controller has changed the petrol read mode. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2242	The Patrol Read has started.	OK / Normal / Informational	**Cause:** The controller has started the Petrol Read operation. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2243. **Related Alert Number:** None. **LRA Number:** None.	751
2243	The Patrol Read has stopped.	OK / Normal / Informational	**Cause:** The controller has stopped the Petrol Read operation. This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2243 is a clear alert for alert 2242. **Related Alert Number:** None. **LRA Number:** None.	751
2244	A virtual disk blink has been initiated.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2245	A virtual disk blink has ceased.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2246	The controller battery is degraded.	Warning / Non-critical	**Cause:** The controller battery charge is weak. **Action:** As the charge weakens, the charger should automatically recharge the battery. If the battery has reached its recharge limit, replace the battery pack. Monitor the battery to make sure that it recharges successfully. If the battery does not recharge, replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2100	1153
2247	The controller battery is charging.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2358. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2248	The controller battery is executing a Learn cycle.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2249	The physical disk Clear operation has started.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901
2250	Redundant Path is broken	Warning / Non-critical	**Cause:** This alert is provided for informational purposes. **Action:** Check the connection to the enclosure, which is degraded.	**Clear Alert Number:** 2370. **Related Alert Number:** 2370. **Local Response Agent (LRA) Alert Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2251	The physical disk blink has initiated.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901
2252	The physical disk blink has ceased.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901
2253	Redundant path restored	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **Local Response Agent (LRA) Alert Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2254	The Clear operation has cancelled.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901
2255	The physical disk has been started.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2048, 2050, 2065, 2099, 2121, 2196, 2201, 2203 **LRA Number:** None.	901
2257	Controller preserved cache is discarded	Warning / Non-critical	**Cause:** The controller cache is discarded by the user. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2258	Controller has preserved cache	Warning / Non-critical	**Cause:** IO interrupted for a virtual disk which is connected to the controller. **Action:** Check for foreign configuration and import if any. Check for cable fault. Recover any virtual disk lost by the controller.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	753
2259	An enclosure blink operation has initiated.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** 2260. **Related Alert Number:** None. **LRA Number:** None.	851
2260	An enclosure blink has ceased	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2261	A global rescan has initiated.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	101
2262	SMART thermal shutdown is enabled.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	101
2263	SMART thermal shutdown is disabled.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	101

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2264	A device is missing.	Warning / Non-critical	**Cause:** The controller cannot communicate with a device. The device may be removed. There may also be a bad or loose cable. **Action:** Check if the device is in and not removed. If it is in, check the cables. You should also check the connection to the controller battery and the battery health. A battery with a weak or depleted charge may cause this alert.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2050, 2060, 2070, 2080, 2090, 2100	753 803 853 903 953 1003 1053 1103 1153 1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2265	A device is in an unknown state.	Warning / Non-critical	**Cause:** The controller cannot communicate with a device. The state of the device cannot be determined. There may be a bad or loose cable. The system may also be experiencing problems with the application programming interface (API). There could also be a problem with the driver or firmware. **Action:** Check the cables. Check if the controller has a supported version of the driver and firmware. You can download the most current version of the driver and firmware from **support.dell.com**. Rebooting the system may also resolve this problem.	**Clear Alert Number:** None. **Related Alert Number:** 2048, 2050 **LRA Number:** 2050, 2060, 2070, 2080, 2090, 2100	753 803 853 903 953 1003 1053 1103 1153 1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2266	Controller log file entry: %1	OK / Normal / Informational	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the controller and is displayed with the alert in the Alert Log. This text can vary depending on the situation. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751, 801, 851, 901, 951, 1001, 1051, 1101, 1151, 1201
2267	The controller reconstruct rate has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2268	%1, Storage Management has lost communication with the controller. An immediate reboot is strongly recommended to avoid further problems. If the reboot does not restore communication, then contact technical support for more information.	Critical / Failure / Error	**Cause:** Storage Management has lost communication with a controller. This may occur if the controller driver or firmware is experiencing a problem. The %1 indicates a substitution variable. The text for this substitution variable is displayed with the alert in the Alert Log and can vary depending on the situation. **Action:** Reboot the system. If the problem is not resolved, contact technical support. See your system documentation for information about contacting technical support by using telephone, fax, and Internet services.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2051	104
2269	The physical disk Clear operation has completed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2270	The physical disk Clear operation failed.	Critical / Failure / Error	**Cause:** A Clear task was being performed on a physical disk but the task was interrupted and did not complete successfully. The controller may have lost communication with the disk. The disk may have been removed or the cables may be loose or defective. **Action:** Verify that the disk is present and not in a Failed state. Make sure the cables are attached securely. See the online help for more information on checking the cables. Restart the Clear task.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904
2271	The Patrol Read corrected a media error.	OK / Normal / Informational	**Cause:** The Patrol Read task has encountered an error such as a bad disk block that cannot be remapped. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2272	Patrol Read found an uncorrectable media error.	Critical / Failure / Error	**Cause:** The Patrol Read task has encountered an error that cannot be corrected. There may be a bad disk block that cannot be remapped. **Action:** Back up your data. If you are able to back up the data successfully, then fully initialize the disk and then restore from back up.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2273	A block on the physical disk has been punctured by the controller.	Critical / Failure / Error	**Cause:** The controller encountered an unrecoverable medium error when attempting to read a block on the physical disk and marked that block as invalid. If the controller encountered the unrecoverable medium error on a source physical disk during a rebuild or reconfigure operation, it will also puncture the corresponding block on the target physical disk. The invalid block will be cleared on a write operation. **Action:** Back up your data. If you are able to back up the data successfully, then fully initialize the disk and then restore from back up.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904
2274	The physical disk rebuild has resumed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2276	The dedicated hot spare is too small.	Warning / Non-critical	**Cause:** The dedicated hot spare is not large enough to protect all virtual disks that reside on the disk group. **Action:** Assign a larger disk as the dedicated hot spare.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903
2277	The global hot spare is too small.	Warning / Non-critical	**Cause:** The global hot spare is not large enough to protect all virtual disks that reside on the controller. **Action:** Assign a larger disk as the global hot spare.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2278	The controller battery charge level is below a normal threshold.	OK / Normal / Informational	**Cause:** The battery is discharging. A battery discharge is a normal activity during the battery Learn cycle. Before completing, the battery Learn cycle recharges the battery. You should receive alert 2179 when the recharge occurs. **Action1:** Check if the battery Learn cycle is in progress. Alert 2176 indicates that the battery Learn cycle has initiated. The battery also displays the Learn state while the Learn cycle is in progress. **Action2:** If a Learn cycle is not in progress, replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** 2199 **LRA Number:** None.	1154
2279	The controller battery charge level is operating within normal limits.	OK / Normal / Informational	**Cause:** This alert indicates that the battery is recharging during the battery Learn cycle. This alert is provided for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2280	A disk media error has been corrected.	OK / Normal / Informational	**Cause:** A disk media error was detected while the controller was completing a background task. A bad disk block was identified. The disk block has been remapped. **Action:** Consider replacing the disk. If you receive this alert frequently, be sure to replace the disk. You should also routinely back up your data.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2281	Virtual disk has inconsistent data.	OK / Normal / Informational	**Cause:** The virtual disk has inconsistent data. This may be caused when a power loss or system shutdown occurs while data is being written to the virtual disk. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2127 **LRA Number:** None.	1201

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2282	Hot spare SMART polling failed.	Critical / Failure / Error	**Cause:** The controller firmware attempted a SMART polling on the hot spare but was unable to complete it. The controller has lost communication with the hot spare. **Action:** Check the health of the disk assigned as a hot spare. You may need to replace the disk and reassign the hot spare. Make sure the cables are attached securely. See the *Dell OpenManage Server Administrator Storage Management User's Guide* for more information on checking the cables.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2071	904
2285	A disk media error was corrected during recovery.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2286	A Learn cycle start is pending while the battery charges.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151
2287	Protection policy for %1 has changed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	101
2288	The patrol read has resumed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2289	Multi-bit ECC error.	Critical / Failure / Error	**Cause:** An error involving multiple bits has been encountered during a read or write operation. The error correction algorithm recalculates parity data during read and write operations. If an error involves only a single bit, it may be possible for the error correction algorithm to correct the error and maintain parity data. An error involving multiple bits, however, usually indicates data loss. In some cases, if the multi-bit error occurs during a read operation, the data on the disk may be OK. If the multi-bit error occurs during a write operation, data loss has occurred. **Action:** Replace the dual in-line memory module (DIMM). The DIMM is a part of the controller battery pack. See your hardware documentation for information on replacing the DIMM. You may need to restore data from backup.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2290	Single-bit ECC error.	Warning / Non-critical	**Cause:** An error involving a single bit has been encountered during a read or write operation. The error correction algorithm has corrected this error. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753
2291	An EMM has been discovered.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851
2292	Communication with the enclosure has been lost.	Critical / Failure / Error	**Cause:** The controller has lost communication with an EMM. The cables may be loose or defective. **Action:** Make sure the cables are attached securely. Reboot the system.	**Clear Alert Number:** 2162. **Related Alert Number:** None. **LRA Number:** 2091	854

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2293	The EMM has failed.	Critical / Failure / Error	**Cause:** The failure may be caused by a loss of power to the EMM. The EMM self test may also have identified a failure. There could also be a firmware problem or a multi-bit error. **Action:** Replace the EMM. See the hardware documentation for information on replacing the EMM.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	854 and 954
2294	A device has been inserted.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1001 and 1101
2295	A device has been removed.	Critical / Failure / Error	**Cause:** A device has been removed and the system is no longer functioning in optimal condition. **Action:** Replace the device.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	1004 and 1104

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2296	An EMM has been inserted.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	951
2297	An EMM has been removed.	Critical / Failure / Error	**Cause:** An EMM has been removed. **Action:** Reinsert the EMM. See the hardware documentation for information on replacing the EMM.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	954

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2298	There is a bad sensor on an enclosure.	Warning / Non-critical	**Cause:** The enclosure has a bad sensor. The enclosure sensors monitor the fan speeds, temperature probes, etc. The %1indicates a substitution variable. The text for this substitution variable is displayed with the alerts in the Alert Log and can vary depending on the situation. **Action:** See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2090	853
2299	Bad PHY %1	Critical / Failure / Error	**Cause:** There is a problem with a physical connection or PHY. The %1 indicates a substitution variable. The text for this substitution variable is displayed with the alert in the Alert Log and can vary depending on the situation. **Action:** Contact Dell technical support.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	854

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2300	The enclosure is unstable.	Critical / Failure / Error	**Cause:** The controller is not receiving a consistent response from the enclosure. There could be a firmware problem or an invalid cabling configuration. If the cables are too long, they will degrade the signal. **Action:** Power down all enclosures attached to the system and reboot the system. If the problem persists, upgrade the firmware to the latest supported version. You can download the most current version of the driver and firmware from **support.dell.com**. Make sure the cable configuration is valid. See the hardware documentation for valid cabling configurations.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	854

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2301	The enclosure has a hardware error.	Critical / Failure / Error	**Cause:** The enclosure or an enclosure component is in a Failed or Degraded state. **Action:** Check the health of the enclosure and its components. Replace any hardware that is in a Failed state. See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	854
2302	The enclosure is not responding.	Critical / Failure / Error	**Cause:** The enclosure or an enclosure component is in a Failed or Degraded state. **Action:** Check the health of the enclosure and its components. Replace any hardware that is in a Failed state. See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2091	854

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2303	The enclosure cannot support both SAS and SATA physical disks. Physical disks may be disabled.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	851
2304	An attempt to hot plug an EMM has been detected. This type of hot plug is not supported.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** 2211 **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2305	The physical disk is too small to be used for a rebuild.	Warning / Non-critical	**Cause:** The physical disk is too small to rebuild the data. **Action:** Remove the physical disk and insert a new physical disk that is the same size or larger than the disk that is being rebuilt. The new physical disk must also use the same technology (for example, SAS or SATA) as the disk being rebuilt. If the rebuild does not start automatically after you have inserted a suitable physical disk, then run the Rebuild task. See the *Dell OpenManage Server Administrator Storage Management User's Guide* for more information.	**Clear Alert Number:** None. **Related Alert Number:** 2326 **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2306	Bad block table is 80% full.	Warning / Non-critical	**Cause:** The bad block table is used for remapping bad disk blocks. This table fills, as bad disk blocks are remapped. When the table is full, bad disk blocks can no longer be remapped, and disk errors can no longer be corrected. At this point, data loss can occur. The bad block table is now 80% full. **Action:** Back up your data. Replace the disk generating this alert and restore from back up.	**Clear Alert Number:** None. **Related Alert Number:** 2307 **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2307	Bad block table is full. Unable to log block %1	Critical / Failure / Error	**Cause:** The bad block table is used for remapping bad disk blocks. This table fills, as bad disk blocks are remapped. When the table is full, bad disk blocks can no longer be remapped and disk errors can no longer be corrected. At this point, data loss can occur. The %1 indicates a substitution variable. The text for this substitution variable is displayed with the alert in the Alert Log and can vary depending on the situation. **Action:** Replace the disk generating this alert. If necessary, restore your data from backup.	**Clear Alert Number:** None. **Related Alert Number:** 2048 **LRA Number:** 2071	904

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2309	A physical disk is incopatible.	Warning / Non-critical	**Cause:** You have attempted to replace a disk with another disk that is using an incompatible technology. For example, you may have replaced one side of a mirror with a SAS disk when the other side of the mirror is using SATA technology. **Action:** See the hardware documentation for information on replacing disks.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903
2310	A virtual disk is permanently degraded.	Critical / Failure / Error	**Cause:** A redundant virtual disk has lost redundancy. This may occur when the virtual disk suffers the failure of multiple physical disks. In this case, both the source physical disk and the target disk with redundant data have failed. A rebuild is not possible because there is no redundancy. **Action:** Replace the failed disks and restore from backup.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2081	1204

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2311	The firmware on the EMMs is not the same version. EMM0 %1 EMM1 %2	Warning / Non-critical	**Cause:** The firmware on the EMM modules is not the same version. It is required that both modules have the same version of the firmware. This alert may be caused if you attempt to insert an EMM module that has a different firmware version than an existing module. The %1 and %2 indicate a substitution variable. The text for these substitution variables is displayed with the alert in the Alert Log and can vary depending on the situation. **Action:** Upgrade to the same version of the firmware on both EMM modules.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2090	853
2312	A power supply in the enclosure has an AC failure.	Warning / Non-critical	**Cause:** The power supply has an AC failure. **Action:** Replace the power supply.	**Clear Alert Number:** 2325. **Related Alert Number:** 2122, 2324. **LRA Number:** 2090	1003

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2313	A power supply in the enclosure has a DC failure.	Warning / Non-critical	**Cause:** The power supply has a DC failure. **Action:** Replace the power supply.	**Clear Alert Number:** 2323. **Related Alert Number:** 2122, 2322. **LRA Number:** 2090	1003
2314	The initialization sequence of SAS components failed during system startup. SAS management and monitoring is not possible.	Critical / Failure / Error	**Cause:** Storage Management is unable to monitor or manage SAS devices. **Action:** Reboot the system. If problem persists, make sure you have supported versions of the drivers and firmware. Also, you may need to reinstall Storage Management or Server Administrator because of some missing installation components.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2051	104

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2315	Diagnostic message %1	OK / Normal / Informational	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the utility that ran the diagnostics and is displayed with the alert in the Alert Log. This text can vary depending on the situation. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2316	Diagnostic message %1	Critical / Failure / Error	**Cause:** A diagnostics test failed. The %1 indicates a substitution variable. The text for this substitution variable is generated by the utility that ran the diagnostics and is displayed with the alert in the Alert Log. This text can vary depending on the situation. **Action:** See the documentation for the utility that ran the diagnostics for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2318	Problems with the battery or the battery charger have been detected. The battery health is poor.	Warning / Non-critical	**Cause:** The battery or the battery charger is not functioning properly. **Action:** Replace the battery pack.	**Clear Alert Number:** None. **Related Alert Number:** 2188 **LRA Number:** 2100	1154
2319	Single-bit ECC error. The DIMM is degrading.	Warning / Non-critical	**Cause:** The DIMM is beginning to malfunction. **Action:** Replace the DIMM to avoid data loss or data corruption. The DIMM is a part of the controller battery pack. See your hardware documentation for information on replacing the DIMM or contact technical support.	**Clear Alert Number:** None. **Related Alert Number:** 2320 **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2320	Single-bit ECC error. The DIMM is critically degraded.	Critical / Failure / Error	**Cause:** The DIMM is malfunctioning. Data loss or data corruption may be imminent. **Action:** Replace the DIMM immediately to avoid data loss or data corruption. The DIMM is a part of the controller battery pack. See your hardware documentation for information on replacing the DIMM or contact technical support.	**Clear Alert Number:** None. **Related Alert Number:** 2321 **LRA Number:** 2061	754
2321	Single-bit ECC error. The DIMM is critically degraded. There will be no further reporting.	Critical / Failure / Error	**Cause:** The DIMM is malfunctioning. Data loss or data corruption is imminent. The DIMM must be replaced immediately. No further alerts will be generated. **Action:** Replace the DIMM immediately. The DIMM is a part of the controller battery pack. See your hardware documentation for information on replacing the DIMM.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2322	The DC power supply is switched off.	Critical / Failure / Error	**Cause:** The power supply unit is switched off. Either a user switched off the power supply unit or it is defective. **Action:** Check if the power switch is turned off. If it is turned off, turn it on. If the problem persists, check if the power cord is attached and functional. If the problem is still not corrected or if the power switch is already turned on, replace the power supply unit.	**Clear Alert Number:** 2323. **Related Alert Number:** None. **LRA Number:** 2091	1004
2323	The power supply is switched on.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2323 is a clear alert for alerts 2313 and 2322. **Related Alert Number:** None. **LRA Number:** None.	1001

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2324	The AC power supply cable has been removed.	Critical / Failure / Error	**Cause:** The power cable may be pulled out or removed. The power cable may also have overheated and become warped and nonfunctional. **Action:** Replace the power cable.	**Clear Alert Number:** 2325. **Related Alert Number:** None. **LRA Number:** 2091	1004
2325	The power supply cable has been inserted.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Status:** Alert 2325 is a clear alert for alerts 2324 and 2312. **Related Alert Number:** None. **LRA Number:** None.	1001

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2326	A foreign configuration has been detected.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. The controller has physical disks that were moved from another controller. These physical disks contain virtual disks that were created on the other controller. See the Import Foreign Configuration and Clear Foreign Configuration section in the *Dell OpenManage Server Administrator Storage Management User's Guide* for more information. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2327	The NVRAM has corrupted data. The controller is reinitializing the NVRAM.	Warning / Non-critical	**Cause:** The nonvolatile random access memory (NVRAM) is corrupt. This may occur after a power surge, a battery failure, or for other reasons. The controller is reinitializing the NVRAM. The controller properties will reset to the default settings after the reinitialization is complete. **Action:** None. The controller is taking the required corrective action. If this alert is generated often (such as during each reboot), replace the controller.	**Clear Alert Number:** None. **Related Alert Number:** 2266 **LRA Number:** 2060	753
2328	The NVRAM has corrupt data.	Warning / Non-critical	**Cause:** The NVRAM has corrupt data. The controller is unable to correct the situation. **Action:** Replace the controller.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2329	SAS port report: %1	Warning / Non-critical	**Cause:** The text for this alert is generated by the controller and can vary depending on the situation. The %1 indicates a substitution variable. The text for this substitution variable is generated by the controller and is displayed with the alert in the Alert Log. This text can vary depending on the situation. **Action:** Run the PHY integrity test diagnostic. Make sure the cables are attached securely. If the problem persists, replace the cable with a valid cable according to SAS specifications. If the problem still persists, you may need to replace some devices such as the controller or EMM. See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2330	SAS port report: %1	OK / Normal / Informational	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the controller and is displayed with the alert in the Alert Log. This text can vary depending on the situation. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2331	A bad disk block has been reassigned.	OK / Normal / Informational	**Cause:** The disk has a bad block. Data has been readdressed to another disk block and no data loss has occurred. **Action:** Monitor the disk for other alerts or indications of poor health. For example, you may receive alert 2306. Replace the disk if you suspect there is a problem.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2332	A controller hot plug has been detected.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2334	Controller event log: %1	OK / Normal / Informational	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the controller and is displayed with the alert in the Alert Log. This text is from events in the controller event log that were generated while Storage Management was not running. This text can vary depending on the situation. This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2335	Controller event log: %1	Warning / Non-critical	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the controller and is displayed with the alert in the Alert Log. This text is from events in the controller event log that were generated while Storage Management was not running. This text can vary depending on the situation. **Action:** If there is a problem, review the controller event log and the Server Administrator Alert Log for significant events or alerts that may assist in diagnosing the problem. Check the health of the storage components. See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2060	753

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2336	Controller event log: %1	Critical / Failure / Error	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the controller and is displayed with the alert in the Alert Log. This text is from events in the controller event log that were generated while Storage Management was not running. This text can vary depending on the situation. **Action:** See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2337	The controller is unable to recover cached data from the battery backup unit (BBU).	Critical / Failure / Error	**Cause:** The controller was unable to recover data from the cache. This may occur when the system is without power for an extended period of time when the battery is discharged. **Action:** Check if the battery is charged and in good health. When the battery charge is unacceptably low, it cannot maintain cached data. Check if the battery has reached its recharge limit. The battery may need to be recharged or replaced.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2101	1154
2338	The controller has recovered cached data from the BBU.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2339	The factory default settings have been restored.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2340	The BGI completed with uncorrectable errors.	Critical / Failure / Error	**Cause:** The BGI task encountered errors that cannot be corrected. The virtual disk contains physical disks that have unusable disk space or disk errors that cannot be corrected. **Action:** Replace the physical disk that contains the disk errors. Review other alert messages to identify the physical disk that has errors. If the virtual disk is redundant, you can replace the physical disk and continue using the virtual disk. If the virtual disk is non-redundant, you may need to recreate the virtual disk after replacing the physical disk. After replacing the physical disk, run Check Consistency to check the data.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2081	1204

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2341	The Check Consistency made corrections and completed.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2342	The Check Consistency found inconsistent parity data. Data redundancy may be lost.	Warning / Non-critical	**Cause:** The data on a source disk and the redundant data on a target disk is inconsistent. **Action:** Restart the Check Consistency task. If you receive this alert again, check the health of the physical disks included in the virtual disk. Review the alert messages for significant alerts related to the physical disks. If you suspect that a physical disk has a problem, replace it and restore from backup.	**Clear Alert Number:** None. **Related Alert Number:** 2341, 2343 **LRA Number:** 2080	1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2343	The Check Consistency logging of inconsistent parity data is disabled.	Warning / Non-critical	**Cause:** The Check Consistency can no longer report errors in the parity data. **Action:** See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2080	1203
2346	Error occurred: %1	Warning / Non-critical	**Cause:** A physical device may have an error. The %1 indicates a substitution variable. The text for this substitution variable is generated by the firmware and is displayed with the alert in the Alert Log. This text can vary depending on the situation. **Action:** Verify the health of attached devices. Review the Alert Log for significant events. Run the PHY integrity diagnostic tests. You may need to replace faulty hardware. Make sure the cables are attached securely. See the hardware documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** 2048, 2050, 2056, 2057, 2076, 2079, 2081, 2083, 2095, 2129, 2201, 2203, 2270, 2282, 2369 **LRA Number:** 2070	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2347	The rebuild failed due to errors on the source physical disk.	Critical / Failure / Error	**Cause:** You are attempting to rebuild data that resides on a defective disk. **Action:** Replace the source disk and restore from backup.	**Clear Alert Number:** None. **Related Alert Number:** 2195, 2346 **LRA Number:** 2071	904
2348	The rebuild failed due to errors on the target physical disk.	Critical / Failure / Error	**Cause:** You are attempting to rebuild data on a disk that is defective. **Action:** Replace the target disk. If a rebuild does not automatically start after replacing the disk, initiate the Rebuild task. You may need to assign the new disk as a hot spare to initiate the rebuild.	**Clear Alert Number:** None. **Related Alert Number:** 2195, 2346 **LRA Number:** 2071	904
2349	A bad disk block could not be reassigned during a write operation.	Critical / Failure / Error	**Cause:** A write operation could not complete because the disk contains bad disk blocks that could not be reassigned. Data loss may have occurred and data redundancy may also be lost. **Action:** Replace the disk.	**Clear Alert Number:** None. **Related Alert Number:** 2346 **LRA Number:** 2071	904

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2350	There was an unrecoverable disk media error during the rebuild.	Critical / Failure / Error	**Cause:** The rebuild encountered an unrecoverable disk media error. **Action:** Replace the disk.	**Clear Alert Number:** None. **Related Alert Number:** 2095, 2273 **LRA Number:** 2071	904
2351	A physical disk is marked as missing.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** 2352. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2352	A physical disk that was marked as missing has been replaced.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Status:** Alert 2352 is a clear alert for alert 2351. **Related Alert Number:** None. **LRA Number:** None.	901
2353	The enclosure temperature has returned to normal.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Status:** Alert 2353 is a clear alert for alerts 2100 and 2101. **Related Alert Number:** None. **LRA Number:** None.	851

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2356	SAS SMP communications error %1.	Critical / Failure / Error	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the firmware and is displayed with the alert in the Alert Log. This text can vary depending on the situation. The reference to SMP in this text refers to SAS Management Protocol. **Action:** There may be a SAS topology error. See the hardware documentation for information on correct SAS topology configurations. There may be problems with the cables such as a loose connection or an invalid cabling configuration. See the hardware documentation for information on correct cabling configurations. Check if the firmware is a supported version.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2357	SAS expander error: %1	Critical / Failure / Error	**Cause:** The %1 indicates a substitution variable. The text for this substitution variable is generated by the firmware and is displayed with the alert in the Alert Log. This text can vary depending on the situation. **Action:** There may be a problem with the enclosure. Check the health of the enclosure and its components. by selecting the enclosure object in the tree view. The Health subtab displays a red "X" or yellow exclamation point for enclosure components that are failed or degraded. See the enclosure documentation for more information.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2061	754
2358	The battery charge cycle is complete.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1151

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2359	The physical disk is not certified.	Warning / Non-critical	**Cause:** The physical disk does not comply with the standards set by Dell and is not supported. **Action:** Replace the physical disk with a physical disk that is supported.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** 2070	903
2360	A user has discarded data from the controller cache.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2361	Physical disk(s) that are part of a virtual disk have been removed while the system was shut down. This removal was discovered during system startup.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2362	Physical disk(s) have been removed from a virtual disk. The virtual disk will be in Failed state during the next system reboot.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2364	All virtual disks are missing from the controller. This situation was discovered during system startup.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751
2366	Dedicated spare imported as global due to missing arrays	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	901

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2367	Rebuild is not possible because mixing of different media type (SSD/HDD) and bus protocols (SATA/SAS) is not supported on the same virtual disk.	Warning / Non-critical	**Cause:** The physical disk is using an incompatible technology. **Action:** All physical disks in the virtual disk must use the same technology. You cannot use both SAS and SATA physical disks in the same virtual disk. Remove the physical disk and insert a new physical disk that uses the correct technology. If the rebuild does not start automatically after you have inserted a suitable physical disk, then run the Rebuild task.	**Clear Alert Number:** None. **Related Alert Number:** 2326 **LRA Number:** 2070	903
2368	The SCSI Enclosure Processor (SEP) has been rebooted as part of the firmware download operation and will be unavailable until the operation completes.	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** 2049, 2052, 2162, 2292 **LRA Number:** None.	851

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2369	Virtual Disk Redundancy has been degraded.	OK / Normal / Informational	**Cause:** A physical disk in a RAID 6 virtual disk has either failed or been removed. **Action:** Replace the missing or failed physical disk.	**Clear Alert Number:** 2121. **Related Alert Number:** 2048, 2049, 2050, 2076, 2346 **LRA Number:** None.	1201
2370	Redundant Path View cleared	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	1201
2371	Attempted import of Unsupported Virtual Disk type RAID%1	OK / Normal / Informational	**Cause:** This alert is for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2372	Attempted import of Virtual Disk exceeding the limit supported on the controller.	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2373	Attempted import of unsupported Virtual Disk type RAID %1	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. User is attempting to import a foreign virtual disk with unsupported RAID level on the controller **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2374	Attempted import of Virtual Disk with missing span	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. User is attempting to import a foreign virtual disk with a missing span. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2375	Attempted import of Virtual Disk with missing physical disk	OK / Normal / Informational	**Cause:** User is attempting to import a foreign virtual disk with a missing physical disk. This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2376	Attempted import of Virtual Disk with stale physical disk	OK / Normal / Informational	**Cause:** User is attempting to import a foreign virtual disk with a stale physical disk. This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2377	Attempted import of an orphan drive	OK / Normal / Informational	**Cause:** User is attempting to import an orphan drive. This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2378	Attempted import of an incompatible physical drive	OK / Normal / Informational	**Cause:** User is attempting to import an incompatible physical drive. This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2379	An overflow of the foreign configuration has occurred. You can import the foreign configuration in multiple attempts	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2380	Foreign configuration has been partially imported. Some configuration failed to import.	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2381	Controller preserved cache is recovered.	OK / Normal / Informational	**Cause:** This alert is provided for informational purposes. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	751
2382	An un-supported configuration was detected. The controller does not support physical disks of type SSD: <Physical DiskID>, <controllerID>, <connector ID>	Warning / Non-critical	**Cause:** A physical disk of media type SSD is attached to a controller that does not support SSD disks. **Action:** Replace the unsupported physical disk with a physical disk of media type HDD.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	903

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2383	The Information level set for the hot spare protection policy is violated for the Virtual Disk.	OK / Normal / Informational	**Cause:** The number of physical disks you specified for the hot spare protection policy is violated. **Action:** Reassign the number of hot spares as specified in the protection policy for that RAID level.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	1201
2384	The Warning level set for the hot spare protection policy is violated for the Virtual Disk.	Warning / Non-critical	**Cause:** The number of physical disks you specified for the hot spare protection policy is violated. **Action:** Reassign the number of hot spares as specified in the protection policy for that RAID level.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	1203

Table 4-4. Storage Management Messages *(continued)*

Event ID	Description	Severity	Cause and Action	Related Alert Information	SNMP Trap Numbers
2385	The Critical level set for the hot spare protection policy is violated for the Virtual Disk.	Critical / Failure / Error	**Cause:** The number of physical disks you specified for the hot spare protection policy is violated. **Action:** Reassign the number of hot spares as specified in the protection policy for that RAID level.	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	1204
2386	Drive could not be assigned as Dedicated Hot Spare.	OK / Normal / Informational	**Cause:** The assignment of Dedicated Hot Spare fails as the disk is invalid. **Action:** None	**Clear Alert Number:** None. **Related Alert Number:** None. **LRA Alert Number:** None.	901

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