

Dell

# SNMP Trap Correlation 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.

---

**Information in this document is subject to change without notice.**

**© 2010 Dell Inc. All rights reserved.**

Reproduction of these materials in any manner whatsoever without the written permission of Dell Inc. is strictly forbidden.

Trademarks used in this text: Dell™, the DELL logo, OpenManage™ are trademarks of Dell Inc.

Other trademarks and trade names may be used in this document to refer to either the entities claiming the marks and names or their products. Dell Inc. disclaims any proprietary interest in trademarks and trade names other than its own.

**October 2010**

# Contents

1	Trap Correlation	5
	<b>Overview</b>	<b>5</b>
	<b>Instrumentation Traps</b>	<b>5</b>
	Miscellaneous Traps	6
	Temperature Probe Traps	6
	Cooling Device Traps	7
	Voltage Probe Traps	7
	Amperage Probe Traps	8
	Chassis Intrusion Traps	8
	Redundancy Unit Traps	9
	Power Supply Traps	9
	Memory Device Traps	10
	Fan Enclosure Traps	10
	AC Power Cord Traps	11
	Hardware Log Traps	11
	Processor Device Status Traps	12
	Pluggable Device Traps	12
	Battery Traps	13



# Trap Correlation

## Overview

This reference guide provides detailed information about the SNMP traps generated by Dell OpenManage Server Administrator (OMSA) that are displayed as messages on the HP Operations Manager (HPOM) console. It is intended for system administrators who use HPOM to monitor Dell systems.

The SNMP Interceptor policy has predefined rules for processing all the OMSA and OpenManage Storage Systems (OMSS) traps sent by the Dell systems. For every OMSA or OMSS trap received there are one or more **Clear Event** traps that auto-acknowledge or clear the trap that is received.

This guide provides information about the OMSA **Clear Event** traps that HPOM uses to auto-acknowledge the SNMP traps it receives from the Dell systems.

For information on the OMSS **Clear Event** traps, see the "Storage Management Message Reference" section in the *Dell OpenManage Server Administrator Version 6.3 Messages Reference Guide* available on the Dell Support website at [support.dell.com/manuals](http://support.dell.com/manuals).

## Instrumentation Traps

This section describes the traps that are generated by the Instrumentation service of the Server Administrator. All the traps documented in this section belong to the MIB enterprise identified by OID 1.3.6.1.4.1.674.10892.1

For information on the description of the traps, see the *Instrumentation Traps* Section in the *Dell OpenManage Server Administrator Version 6.3 SNMP Reference Guide*.

## Miscellaneous Traps

Table 2-1 lists Miscellaneous traps that inform you that certain alert systems are up and working.

**Table 2-1. Miscellaneous Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1001	System Up	None
1004	Thermal Shutdown	None
1006	Automatic System Recovery	None
1007	Host System Reset	None
1013	System Peak Power New Peak	None

## Temperature Probe Traps

Temperature probes help protect critical components by alerting the systems management console when temperatures become too high inside a chassis. The temperature probe traps use additional variables: sensor location, chassis location, previous state, and temperature sensor value reported in degrees Celsius.

**Table 2-2. Temperature Probe Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1052	Temperature Probe Normal	TemperatureProbeWarning (1053), TemperatureProbeFailure (1054), TemperatureProbeNonRecoverable (1055)
1053	Temperature Probe Warning	TemperatureProbeFailure (1054), TemperatureProbeNonRecoverable (1055)
1054	Temperature Probe Failure	TemperatureProbeWarning (1053), TemperatureProbeNonRecoverable (1055)
1055	Temperature Probe Nonrecoverable	TemperatureProbeWarning (1053), TemperatureProbeFailure (1054)

## Cooling Device Traps

Cooling device traps monitor how well a fan is functioning.

**Table 2-3. Cooling Device Traps**

<b>Trap ID</b>	<b>Alert Name</b>	<b>Related Alerts that are Cleared</b>
1102	Cooling Device Normal	CoolingDeviceWarning (1103), CoolingDeviceFailure (1104), CoolingDeviceNonRecoverable (1105)
1103	Cooling Device Warning	CoolingDeviceFailure (1104), CoolingDeviceNonRecoverable (1105)
1104	Cooling Device Failure	CoolingDeviceWarning (1103), CoolingDeviceNonRecoverable (1105)
1105	Cooling Device Nonrecoverable	CoolingDeviceWarning (1103), CoolingDeviceFailure (1104)

## Voltage Probe Traps

Voltage probes monitor the number of volts across critical components.

**Table 2-4. Voltage Probe Traps**

<b>Trap ID</b>	<b>Alert Name</b>	<b>Related Alerts that are Cleared</b>
1152	Voltage Probe Normal	VoltageProbeWarning (1153), VoltageProbeFailure (1154), VoltageProbeNonRecoverable (1155)
1153	Voltage Probe Warning	VoltageProbeNonRecoverable (1155), VoltageProbeFailure (1154)
1154	Voltage Probe Failure	VoltageProbeWarning (1153), VoltageProbeNonRecoverable (1155)
1155	Voltage Probe Nonrecoverable	VoltageProbeWarning (1153), VoltageProbeFailure (1154)

## Amperage Probe Traps

Amperage probes measure the amount of current (in amperes) that is traversing critical components.

**Table 2-5. Amperage Probe Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1202	Amperage Probe Normal	AmperageProbeWarning (1203), AmperageProbeFailure (1204), AmperageProbeNonRecoverable (1205)
1203	Amperage Probe Warning	AmperageProbeFailure (1204), AmperageProbeNonRecoverable (1205)
1204	Amperage Probe Failure	AmperageProbeWarning (1203), AmperageProbeNonRecoverable (1205)
1205	Amperage Probe Nonrecoverable	AmperageProbeWarning (1203), AmperageProbeFailure (1204)

## Chassis Intrusion Traps

Chassis intrusion traps are a security measure. Chassis intrusion indicates that there is some disturbance to a system's chassis. Alerts are sent to prevent unauthorized removal of parts from a chassis.

**Table 2-6. Chassis Intrusion Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1252	Chassis Intrusion Normal	ChassisIntrusionDetected (1254)
1254	Chassis Intrusion Detected	None



## Redundancy Unit Traps

Redundancy indicates 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.

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

**Table 2-7. Redundancy Unit Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1304	Redundancy Normal	RedundancyDegraded (1305), RedundancyLost (1306)
1305	Redundancy Degraded	RedundancyLost (1306)
1306	Redundancy Lost	RedundancyDegraded (1305)

## Power Supply Traps

Power supply traps provide status and warning information for power supplies present in a particular chassis.

**Table 2-8. Power Supply Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1352	Power Supply Normal	PowerSupplyWarning (1353), PowerSupplyFailure (1354)
1353	Power Supply Warning	PowerSupplyFailure (1354)
1354	Power Supply Failure	PowerSupplyWarning (1353)

## Memory Device Traps

Memory device messages provide status and warning information for memory modules present in a particular system. Memory devices determine health status by counting the number of ECC memory corrections.



**NOTE:** A value of `failure` or `non-recoverable` does not indicate a system failure or loss of data, but rather that the specified system exceeded the specified ECC correction threshold.

**Table 2-9. Memory Device Messages**

Trap ID	Alert Name	Related Alerts that are Cleared
1403	MemoryDeviceWarning	MemoryDeviceFailure (1404), MemoryDeviceNonRecoverable (1405)
1404	MemoryDeviceFailure	MemoryDeviceWarning (1403) MemoryDeviceNonRecoverable (1405)
1405	MemoryDeviceNonRecoverable	MemoryDeviceFailure (1404) MemoryDeviceWarning (1403)

## Fan Enclosure Traps

Some systems are equipped with a protective enclosure for fans. Fan enclosure traps monitor enclosures for whether foreign objects are present and for how long a fan enclosure is absent from a chassis.

**Table 2-10. Fan Enclosure Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1452	Fan Enclosure Insertion	FanEnclosureRemoval (1453), FanEnclosureExtendedRemoval (1454)
1453	Fan Enclosure Removal	FanEnclosureExtendedRemoval (1454)
1454	Fan Enclosure Extended Removal	FanEnclosureRemoval (1453)

## AC Power Cord Traps

The AC power cord sensor monitors the presence of AC power for an AC power cord. AC power cord traps 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 Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1501	AC Power Cord No Power Nonredundant	ACPowerCordFailure (1504),
1502	AC Power Cord Normal	ACPowerCordNoPowerNonRedundant (1501), ACPowerCordFailure (1504)
1504	AC Power Cord Failure	ACPowerCordNoPowerNonRedundant (1501), ACPower Cord Normal (1502)

## Hardware Log Traps

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 provide status and warning information about the noncircular logs that may fill up, resulting in lost status messages.

**Table 2-12. Hardware Log Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1552	Log Normal	LogWarning (1553), LogFull (1554)
1553	Log Warning	LogFull (1554)
1554	Log Full	LogWarning (1553)

## Processor Device Status Traps

The BMC on some systems reports the status of processor devices. Processor device status traps provide status and warning information for processor devices present in a system with a BMC that reports the status of processor devices.

**Table 2-13. Processor Device Status Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1602	Processor Device Status Normal	ProcessorDeviceStatusWarning (1603), ProcessorDeviceStatusFailure (1604)
1603	Processor Device Status Warning	ProcessorDeviceStatusFailure (1604)
1604	Processor Device Status Failure	ProcessorDeviceStatusWarning (1603)

## Pluggable Device Traps

Server Administrator monitors the addition and removal of pluggable devices such as memory cards. Device traps provide information about the addition and removal of such devices.

**Table 2-14. Pluggable Device Traps**

Trap ID	Alert Name	Related Alerts that are Cleared
1651	DeviceAdd	None
1652	DeviceRemove	None
1653	DeviceConfigError	None

## Battery Traps

The BMC on some systems reports the status of batteries. Battery traps provide status and warning information for batteries present in a system with a BMC that reports the status of batteries.

**Table 2-15. Battery Traps**

<b>Trap ID</b>	<b>Alert Name</b>	<b>Related Alerts that are Cleared</b>
1702	Battery Normal	Battery Warning (1703), BatteryFailure (1704)
1703	Battery Warning	BatteryFailure (1704)
1704	Battery Failure	BatteryWarning (1703)

