# Dell OpenManage Essentials MIB Import Monitoring HP Servers and Third-Party Hardware



**OME Engineering** 

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## Introduction

Dell OpenManage Essentials (OME) is a hardware management application that provides a comprehensive view of Dell systems, devices, and components in the enterprise's network. Health monitoring in OME has two parts to it:

- SNMP traps received from the remote device.
- Health poll to retrieve the latest status of the remote device.

The *Dell OpenManage Essentials MIB Import* option allows you to extract trap definitions from SNMP supported device MIB files. The extracted traps can be viewed and edited before they are imported. The imported trap definitions help OME to properly classify the incoming traps. To know more about the benefits of importing trap definitions, see <u>About Importing Traps</u>.

**Note:** From OpenManage Essentials version 2.2 onwards, the MIB Import functionality is integrated within the OpenManage Essentials user interface.

# Scope

This document provides an overview of the *OME MIB Import* functionality and the benefits of importing trap definitions in OME.

# About Importing Traps

If you want to monitor (classify incoming SNMP traps) an SNMP supported device that is not currently supported by OME, use the *MIB Import* option to import that device's SNMP trap definitions.

Ensure the following before using the *MIB Import* option:

- > The remote device supports SNMP v1 or v2 protocol
- SNMP services on the remote device are working as expected and the trap destination points to OME system
- > You have the device-specific SNMP MIB files (main MIB and its reference MIBs)
- > Validate the device-specific MIBs by using a standard MIB compiler tool

The following table provides a comparison of the traps both before and after the definitions are imported to the OME database.

Feature	Before Importing the Trap	After Importing the Trap		
Can I see traps coming from the device in the OpenManage Essentials Alerts portal?	Yes	Yes		
Will traps have a severity value?	No, the severity is unknown.	Yes		
Will traps have a valid name?	No, the name is unknown.	Yes, the trap name is defined in the MIB		

#### Table 1. Benefits of importing trap definitions in OME

No, the event category name is unknown.	Yes, a new category is created by default.
Yes, all the description details are present. However, the details are not formatted	Yes, the description is formatted according to the trap definition
Yes	Yes
Yes	Yes
Yes, however, the details are not formatted.	Yes
Yes	Yes
Yes, but the features are limited. Rules specific to severity, event category, event name, and so on are not possible	Yes, the traps are defined so all the alert actions are supported based on the trap name, category, severity, and so on
Yes	Yes
Yes	Yes
	is unknown. Yes, all the description details are present. However, the details are not formatted Yes Yes Yes, however, the details are not formatted. Yes Yes, but the features are limited. Rules specific to severity, event category, event name, and so on are not possible Yes

## Note:

> The MIB Import option will not accurately determine the severity from the MIB. You will need to add severity context to each trap.

# Prerequisites

The *MIB Import* functionality is included within OME version 2.2 and later.

# Using MIB Import Functionality

The Import MIB functionality is available in the alert management section. The **Manage MIBs** view has the following options that are accessible in the left panel:

- Import MIB This option allows you to:
  - Select a MIB file to import
  - Parse the selected MIB
  - $\circ$   $\,$  View or update the extracted trap definitions of the MIB  $\,$
  - Import the trap definitions to OME
- Remove MIB This option allows you to:
  - View the imported MIBs
  - Remove those MIBs (traps definitions) from OME

Home Manage Deployment Reports Settin	tings Logs Tutorials Dell Solutions
Devices Device Search Discovery and Invento	tory Alerts System Update Remote Tasks Configuration
Common Tasks 🗸 🗸 🗸	Import MIB
Alert Logs v	
Alert Actions v	Select a MIB file to parse and import its trap details.
Alert Categories & Definitions V	
Manage MIBs ^	Select files for upload
Import MIB	
Remove MIB	
Manage Traps 🛛 🗸 🗸	
	Browse

#### Figure 1. Manage MIBs View

## Import MIB

To import the trap definition of a device, browse and select the SNMP supported device MIB that has the required trap definitions. For example, if you want to import the trap definitions of a HP server to OME, select the **CPQIDA-MIB.mib** (Module name: CPQIDA-MIB, Intelligent Drive Array Management SNMP MIB) file.

Note:

This white paper refers to some of the HP ProLiant server MIBs. You can also refer to <u>http://h18013.www1.hp.com/products/servers/management/hpsim/mibkit.html</u> for information on HP servers MIBs. The examples included in this white paper refer to certain HP MIBs (CPQSINFO-MIB, CPQHLTH-MIB, CPQHOST-MIB, and CPQNIC-MIB).

You can select \*.mib, \*.txt and \*.my files. If you have a MIB file with any other file name extension, you can rename the file to .mib, .txt, or .my and then select it.

		rigare 2000		parons
Import MIB				
Select a MIB file to pa	arse and import its trap details.			
Select files for	upload			
CPQIDA-MIB.mib		654.54 KB		
Total	100%	654.54 KB		
	Cancel	Browse		
Select a MIB File:	CPQIDA-MIB.mib	•	Parse MIB	

Figure 2.Selecting a MIB for parsing

When you parse the earlier mentioned HP server MIB for the first time, it will display the message shown in Figure 3, prompting you to add the required reference MIBs to the MIB repository. OME bundles various standard reference MIBs which help parsing any MIB which refers to them. In this example, only one MIB file is listed in the message because the rest of the required MIBs are already part of the MIB repository. To parse the specific HP MIB, ensure you have added the required reference MIBs to the MIB repository. In this example, it is CPQ\_HOST\_M14.mib (Module name: CPQHOST-MIB) Host Operating System Information MIB. For information on adding MIBs to the MIB repository, see <u>MIB Repository</u>.

For information on the HP server MIB dependency, see <u>HP Server MIB Module definition and reference</u> <u>MIBs</u>.

Figure 3.HP Server MIB Dependencies

Import MIB					
Select a MIB file to parse and import its trap details.					
Select files for upload					
CPQIDA-MIB.mib 654.55 KB					
Total 100% 654.55 KB					
Cancel Browse					
Select a MIB File: CPQIDA-MIB.mib	Parse MIB				
Event Details					
Category Name:	Apply the selected	Import MIB		23	
Severity:	Apply the selected			IOST-MIB14 to MIB	
Traps Available for Import		repository for successful pars	sing.		
Drag a column header and drop it here to group by that column				Ok	
🔲 Name 🛛 🏹 💋 Category Name 🟹 💈	Severity 🕅	🕜 Format String 🛛 🕅	Enterprise OID	T Description	Generic Trap ID

While browsing for the MIB, select referred MIB along with required MIB to parse and store in OME, and then parse the required MIB. OME will parse the MIB and populate the grid with the parsed trap definitions and add the reference MIB in the repository. The number of traps that were parsed is displayed below the grid. The following figure shows the parsed CPQIDA-MIB.mib file.

#### Figure 4. Parsed HP Server MIB Trap Definitions

mport MIB								(
c pdpOCardDeviceFalure         CPQIDA-MIB         Critical         S3         1.3.6.1.4.1674.01         SD card device has detected a falure.         6         1           c pdpOtardDeviceFalure         CPQIDA-MIB         Critical         S3         1.3.6.1.4.1674.01         Battery has detected a falure.         6         1704           c pdpOtardDeviceFalure         CPQIDA-MIB         Critical         S3         1.3.6.1.4.1674.01         Battery has detected a falure.         6         1704           c pdpOtardDeviceFalure         CPQIDA-MIB         Warning         S3         1.3.6.1.4.1674.01         Battery has detected a warning.         6         1703           c pdpOtecconfigError         CPQIDA-MIB         Info         S3         1.3.6.1.4.1674.01         Battery has detected a warning.         6         1702           c pdpOviceConfigError         CPQIDA-MIB         Info         S3         1.3.6.1.4.1674.01         Device configuration error detected.         6         1552           c pdpOviceConfigError         CPQIDA-MIB         Info         S3         1.3.6.1.4.1674.01         Device configuration error detected.         6         1652           c pdpOviceConfigError         CPQIDA-MIB         Info         S3         1.3.6.1.4.1674.01         Device andded to system.         6         1651 <td></td>								
Select files for upload								
CPOIDA-MIB mib	654 54 KB							
T-1-1 1000/	654 54 MD							
Total 100%	654.54 KB							
	Cancel Browse							
alact a MIR File: CROIDA-MIR mib	•	Parce MIR						
	·	Parse Mib						
	-	A set at						
everity: Normal	•	Apply the selected seve	erity to all traps					
Traps Available for Import								
Drag a column header and drop it here to	group by that column							
🔲 Name 🛛 🏹	🕜 Category Name 🛛 🕅	🛃 Severity	🕜 Format String 🛛 🕅	Enterprise OID	Description V	Generic Trap ID	Specific Trap ID	7
cpqSDCardDeviceFailure	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	SD card device has detected a failure.	6	1	
CpqBatteryFailure	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Battery has detected a failure.	6	1704	:
CpgBatteryWarning								
and the desired strength of the strength of th	CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Battery has detected a warning.	6	1703	
-		-						
cpqBatteryNormal	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Battery has returned to normal.	6	1702	
cpqBatteryNormal cpqDeviceConfigError	CPQIDA-MIB CPQIDA-MIB	Info Critical	\$3 \$3	.1.3.6.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected.	6	1702 1653	_
cpqBatteryNormal cpqDeviceConfigError cpqDeviceRemove	CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB	Info Critical Info	\$3 \$3 \$3	.1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected. Device removed from system.	6 6 6	1702 1653 1652	
cpqBatteryNormal  cpqDeviceConfigError  cpqDeviceRemove  cpqDeviceAdd	CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB	Info Critical Info Info	53 53 53 53	.1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected. Device removed from system. Device added to system.	6 6 6 6	1702 1853 1852 1851	
cpdBatteryNormal cpdBatteryNormal cpdDeviceConfigError cpdDeviceRemove cpdDeviceRemove cpdDeviceAdd cpdProcessorDeviceStatusFailure	CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB	Info Critical Info Info	53 53 53 53	.1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected. Device removed from system. Device added to system. Processor device status has detected a failure.	6 6 6 6 6	1702 1853 1852 1851	
cpdBatteryNormal cpdBatteryNormal cpdDeviceConfigError cpdDeviceRemove cpdDeviceRemove cpdDeviceAdd cpdProcessorDeviceStatusFailure	CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB	Info Critical Info Info Critical	53 53 53 53 53 53	.1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected. Device removed from system. Device added to system. Processor device status has detected a failure.	6 6 6 6 6 6	1702 1653 1652 1651 1604	
	CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB	Info Critical Info Info Critical Warning	\$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3 \$3	.1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1 .1.3.6.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected. Device removed from system. Device added to system. Processor device status has detected a failure. Processor device status has detected a warning.	6 6 6 6 6 6	1702 1653 1652 1651 1604 1603	
	CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB CPQIDA-MIB	Info Critical Info Info Critical Warning Info	53 53 53 53 53 53 53 53 53	1.3.6.1.4.1.674.0.1 1.3.8.1.4.1.674.0.1 1.3.8.1.4.1.674.0.1 1.3.8.1.4.1.674.0.1 1.3.8.1.4.1.674.0.1 1.3.8.1.4.1.674.0.1 1.3.8.1.4.1.674.0.1	Battery has returned to normal. Device configuration error detected. Device removed from system. Device added to system. Processor device status has detected a failure. Processor device status has detected a varning. Processor device status has returned to normal.	6 6 6 6 6 6 6 6	1702 1853 1852 1851 1804 1863 1892	

Number of traps parsed: 52 from MIB file "CPQIDA-MIB.mib"

#### The following figure shows the first trap defined in the CPQIDA-MIB.mib file.

#### Figure 5.HP Server MIB Trap Definition

```
TRAP-TYPE
cpqSDCardDeviceFailure
  ENTERPRISE baseboardGroup
   VARIABLES { cpqSystem,
              cpqTableIndexOID,
              cpqMessage,
              cpqCurrentStatus,
              cpqPreviousStatus,
              cpqData }
   DESCRIPTION
"SD card device has detected a failure."
   --HP trap annotation
             "Server SD Card Device Failure"
   --#TYPE
   --#SUMMARY "%s"
   --#ARGUMENTS {2}
   --#SEVERITY CRITICAL
   --#TIMEINDEX 99
   --#STATE
                DEGRADED
   ::= 1
```

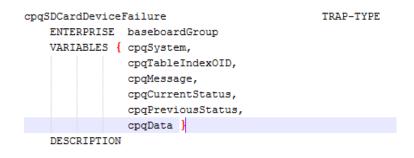
For the earlier trap definition, the information extracted in OME is shown in Figure 6. Some information is added to the MIB definition which is required for proper classification. For example, the MIB module name will be the new event category and the trap severity is critical. If necessary, you can change both these values.

## Figure 6.HP Server MIB Parsed Trap Definition

Traps	Traps Available for Import															
Draj	a column header and drop it here	e to g	group by that column													
	Name 🛛	7	7 Category Name	T	7 Severity	T	7 Format String	Y	Enterprise OID	Y	Description	Y	Generic Trap ID	Y	Specific Trap ID	• ۲
	cpqSDCardDeviceFailure		CPQIDA-MIB		Critical		\$3		.1.3.6.1.4.1.674.0.1		SD card device has detected a failure.		6		1	

Traps	raps Available for Import												
Drag	Drag a column header and drop it here to group by that column												
	Name 🏾 🔊	' 🕜 Category Name 🛛 🍸	🕜 Severity 🛛 🕅	🎸 Format String 🛛 🕅	Enterprise OID	T	Description	T	Generic Trap ID	Specific Trap ID			
	cpqSDCardDeviceFailure	CPQIDA-MIB	Critical •	\$3	.1.3.6.1.4.1.674.0.1		SD card device has detected a failure.		6	1			
	cpqBatteryFailure	CPQIDA-MIB	Unknown	\$3	.1.3.6.1.4.1.674.0.1		Battery has detected a failure.		6	1704			
	cpqBatteryWarning	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1		Battery has detected a warning.		6	1703			
	cpqBatteryNormal	CPQIDA-MIB	Normal Warning	\$3	.1.3.6.1.4.1.674.0.1		Battery has returned to normal.		6	1702			
	cpqDeviceConfigError	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1		Device configuration error detected.		6	1653			
	cpqDeviceRemove	CPQIDA-MIB	By Varbind Value	\$3	.1.3.6.1.4.1.674.0.1		Device removed from system.		6	1652			
	cpqDeviceAdd	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1		Device added to system.		6	1651			

You can change the event category, severity and format string of these parsed traps before importing them. For more information about editing the default values, see <u>Import View Components</u>. Notice that this specific trap severity can also be selected as "By VarBind Value" because the "cpqSDCardDeviceFailure" variable is enumeration based. The following figures show the possible values in the MIB and the Severity Configuration window in OME.



Severity Configura	ation by	Value : cpqSDCa	rdDevi	eFailure			23
Severity Conf	iqurati	on by Value					
	9-11-11						
Select the Variable:	\$4			•			
Drag a column head	ler and dr	op it here to group by	/ that colu	IMN			
Trap Variable	T	7 Severity	T	Object ID	T	Object Value	T
\$4		Normal		1		other	
\$4		Unknown		2		unknown	
\$4		Normal		3		ok	
\$4		Critical		4		nonCritical	
\$4		Critical		5		critical	
\$4		Normal		6		nonRecoverable	
\$5		Normal		1		other	
\$5		Unknown		2		unknown	
\$5		Normal		3		ok	
\$5		Critical		4		nonCritical	
\$5		Critical		5		critical	
\$5		Normal		6		nonRecoverable	
						OK Reset	Cancel

After performing the required updates, click Import Traps.

Note:

- Multiple selections are allowed in the grid and the check boxes allow you to change the category name and severity of multiple selected trap records at a time. You can also modify the individual rows based on your preference.
- Ensure that you have not selected the event category or severity check boxes if you do not want to override the changes done in the grid for these two columns. If you want to import with the changes (Event Category and Severity) performed in the grid, then select these check boxes.

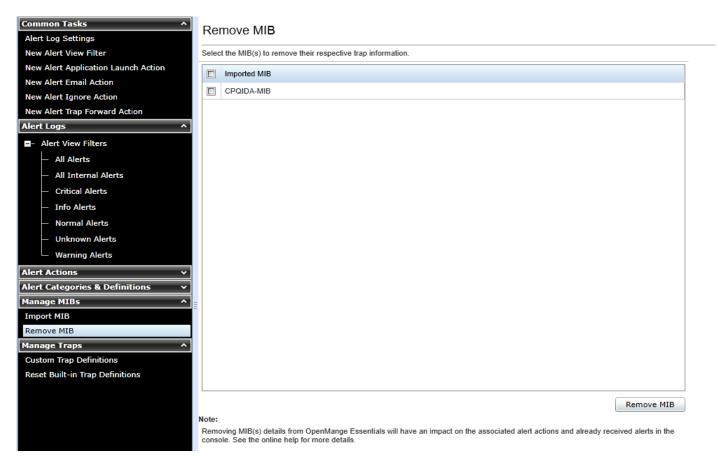
## Important:

- 1. In the earlier figure, OME is able to parse the NMS comments and calculate the recommended severity. If you want to take these severities values available in the grid, then deselect the **Apply the selected severity to all traps** check box.
- 2. If you do not want to take the NMS-based severity, you can select the **By Varbind Value** based severity for those specific traps. For an example, see Figure 6.
- 3. The Format String field does not contain the desirable values, therefore %d must be replaced with \$1 for these trap definitions.
- Reimport the same MIB: If you want to import trap definitions from a newer version of a previously imported MIB, this option allows you to do so. You need not remove that MIB.
- Reimport only updates to the previously imported trap definitions. It does not remove the extra trap definitions which may not be part of the newer version of the MIB file.

## **Remove MIB**

After you have imported the trap definitions from the CPQIDA-MIB.mib file to OME, the MIB file is listed in the **Imported MIB** list of the **Remove MIB** view. If you no longer want these chassis trap definitions in OME, you can remove them. To remove the trap definitions, select the appropriate MIB files from the list and click **Remove MIB**.

## Figure 7. Remove MIB View



#### Note:

- > If necessary, you can select multiple MIBs for removal.
- After you remove the trap definitions, all the associated alert actions, filters, and views for the traps will not work. For more details, see <u>About Importing Traps</u>.
- All classified and received traps (from this specific SNMP device and traps related to this MIB) in OME will be deleted. Before you remove the MIB, ensure you have acknowledged or resolved all the problems reported in the OME events console for this device or component.

## **Custom Trap Definitions**

You can use the Add Trap view to search for unknown traps received in OME and manually define trap definitions and import them to OME. For example, you may want to manually define trap definitions in the following scenarios:

- When you may not want to import the entire MIB file
- The MIB file for the device which is sending traps to OME is not available
- The MIB file cannot be compiled due to formatting issues

The following figure shows the cpqDaLogDrvStatusChange trap from CPQIDA-MIB received in OME which is categorized as unknown (CQPIDA-MIB has not been imported to OME using Import MIB view).

Severity 🕅 Acknowledged 🕅 Time			🕅 Category 🕅	Source 🕅
(2) 1/2/2014	11:18:22 AM 10.94.38.51 Enterprise: .1.3.6.1.4.1.23	32.3 Trap Ids:Generic:6 Specific:1; (;0=1;1=10.94.38.51;2=1.3.6.1.4.1.23	2.3) Unknown	Unknown
(2) 12/31/20	13 ¢	20.1 Trap Ids:Generic:6 Specific:102; ()	Unknown	Unknown
12/28/20	13 2 Alert Details	? p	System Events	omeAlertWarningStatus
(?) 12/28/20	13 1 Severity: Unknown	rp	System Events	omeAlertUnknownStatus
12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20     12/27/20		:IStatus: linkError	Force10-Switch	h f10VLTIclStatusChange
12/27/20	13 2 Device	IStatus: linkNotEstablished	Force10-Switch	h f10VLTIclStatusChange
12/27/20			System Events	omeAlertWarningStatus
3 12/27/20		19	System Events	omeAlertUnknownStatus
12/26/20	I3.7 Source	Unknown 1 chAlarmVarSlot: 0 chAlarmVarPort: 0	Eorce10-Switch	h_ch4larmCardDown
Task Status	Description:			
Task Name	Enterprise: .1.3.6.1.4.1.232.3 Trap Ids:Generic:6 Sp (;0=1;1=10.94.38.51;2=1.3.6.1.4.1.232.3)	pecific:1;  End Time  V		
Scheduled Status Poll		1/2/2014 11:13:04 AM		
Discovery of 10.94.101.220 (Scheduled)		1/2/2014 5:30:10 AM		
Scheduled Inventory		1/2/2014 5:30:04 AM		
Discovery/Inventory of 10.94.101.220 (Us		12/19/2013 6:24:20 PM		
Status Poll of Lasso-iSCSI-grp (User Reque		12/19/2013 4:04:00 PM		
	SNMP Generic Trap OID N/A			
	SNMP Specific Trap OID N/A			
	Previous Next	Close		

Figure 8. Unknown	Trap	Received	in	<b>OMF</b> From	HP	CPOIDA-MIB
	iiup	Received				

The Add Trap view allows searching for unknown traps that are received in OME, and automatically populates the Enterprise OID, Generic ID, and Specific ID fields for the selected unknown trap. This allows you to add the trap definition manually.

The following figure shows the **Unknown Traps** window which is displayed when you click **View Unknown Traps**.

s	earch Unknown Tra	ps						X	1
	Unknown traps								
	Unknown daps								
	Drag a column header	r and dr	op it here to group by t	hat colu	ımn				
	Enterprise OID	T	Generic Trap ID	T	Specific Trap ID	T	Trap Source	T	
	.1.3.6.1.4.1.232.3		6		1		172.16.11.46		
	* Select the unknown t	traps fro	om the above grid.						
							ОК	Cancel	
							UK	Cancel	

Figure 9. Unknown Traps - Custom Trap Definition View

After the unknown trap is selected, you can manually define the trap definition in the **Add Trap** view by selecting an existing category or defining a new category, entering details for the Trap Name, Description, Format String, and selecting Severity. Refer to the trap definition in the MIB file to accurately define the trap using Add Trap view. The following figure shows the manual definition of cpqDaLogDrvStatusChange trap in the Add Trap pane and the values in the Trap(s) Available for Import grid after you click Add Trap. As seen in the figure, a new category is defined instead of selecting an existing category, and the Enterprise OID, Generic ID, and Specific ID fields are automatically populated. After you click Add Trap, the trap definitions displayed in the grid are imported and the status of the import is displayed in the status bar.

#### Figure 10. Custom trap definition add view

Сι	istom Trap D	efinitions	;									?
Ente	r trap details or sear	ch for unknow	n traps that you want to add.									
۲,	dd Trap											
0	ategory Name:	MyCustom	Category	1.0	Description:							
1	rap Name:				Generic ID:	6						
E	interprise OID:				Specific ID:							
F	ormat String:				Severity:	Normal		•				
							View	Unknown Traps Add	l Trap			
- 0	elete User-Define	d Traps —										
1	Drag a column head	ler and drop it	here to group by that colum	1								
	Name	T	Category Name	Severity	T	Enterprise OID	T	Description V	Format String	Generic Trap ID	Specific Trap ID	Y
	customTrap		CPQIDA-MIB	Normal		.1.2.3.4.55		This is custom trap	\$1 format string	6	100	
	🗖 t1		MyCustomCategory	Normal		.1.2.3.4.56		this is trap in custom categor	ry \$1 format	6	1000	

The **Delete User-Defined Traps** pane allows you to delete only the user-defined traps that were imported to OME by using the **Add Trap** pane. The **Delete User-Defined Traps** lists all the user-defined traps in the grid. You can filter the traps list in the **Delete User-defined Traps** grid by entering Trap Name, Enterprise OID, and so on by clicking filter icon of grid as shown in Figure 11. The grid allows multiple traps to be selected for deletion as shown in Figure 12. When you click **Delete Trap**, the selected trap definitions in the grid will be deleted from OME after your confirmation. The status bar will display a message indicating successful deletion of the traps from OME.

#### Note:

alata Llear Defined Trans

- After deleting the trap definition, the associated alert actions and already received alerts will also be deleted from OME.
- If the deleted trap definition is the last trap being deleted in the user-defined category, then that specific user-defined category will also be deleted from OME.
- The Delete User-Defined Trap pane does not allow the deletion of predefined trap definitions and trap definitions that are imported from MIB files by using Import MIB view.

Delete User-Defined Traps -												_
Drag a column header and drop	p it here to group by that column											
Name	Category Name 🛛	Seve	erity 🦷	Ente	terprise OID 🏾 🕅	Description 7	Format String	T	Generic Trap ID	T	Specific Trap ID	T
E 11	Select All	×	mal	.1.2	2.3.4.56	this is trap in custom categor	/ \$1 format		6		1000	
	customTrap											
	🗆 ti											
	Show rows with value that											
	Starts with	•										
	t	aA										
	And	•										
	Contains	•										
		аA										
	Filter Clear Fil	lter										
L. L												

## Figure 11. Trap Filter

## Figure 12. Delete Trap View

Delet	e User-Defined Traps —													
Drag	a column header and drop i	t he	ere to group by that colu	mn										
	Name 🛛 🕅	Ċ	Category Name	T	Severity	T	Enterprise OID	Description 7	7	Format String		Generic Trap ID	7	Specific Trap ID 🛛 🕅
	customTrap		CPQIDA-MIB		Normal		.1.2.3.4.55	This is custom trap		\$1 format string	1	6		100
	ti	1	MyCustomCategory		Normal		.1.2.3.4.56	this is trap in custom catego	лу	\$1 format	4	6		1000
														Delete Trap

## Alert Categories & Definitions

The **Alert Categories & Definitions** view allows you to view all alert categories and edit traps. The **Edit Trap** view allows you to modify the Category Name, Severity, and Format String of the following:

- All traps available in OME (predefined traps)
- Imported traps Traps imported using the Import Trap view
- Manually defined traps Traps defined using the Add Trap view

Figure 13 and Figure 14 show the **Edit Trap** view where you can search for the trap that you want to edit based on Trap Name or Enterprise OID or by using the filter option provided by grid. Alternatively, you can select the traps by selecting a specific event category or trap from the expandable Event Categories tree view on the left.

	tings Logs Tutorials Dell Solutions	Search device, ranges, and more.
	ntory Alerts System Update Remote Tasks Configuration	
1 Tasks	Alert Categories	
gs		
tions	Name	
tegories & Definitions	Brocade-Switch	
t Categories	Compelient	
Brocade-Switch	CPQIDA-MIB	
Compellent	Dell Advanced Infrastructure Manager	
CPQIDA-MIB	Environmental	
Dell Advanced Infrastructure Mar	EqualLogic Storage	
Environmental	FC-Switch	
EqualLogic Storage	Firewall	
FC-Switch	Fluid Cache	
Firewall	Fluid Storage	
Fluid Cache	General Redundancy	
luid Storage	HyperV Server	
General Redundancy	IDRAC	
HyperV Server		
DRAC	Juniper-Switch	
luniper-Switch	Keyboard-Video-Mouse (KVM)	
Keyboard-Video-Mouse (KVM)	Memory	
Memory	Network	
Network	Other	
Other	PDU	
PDU	Physical Disk	
Physical Disk	Power	
Power	Power Center	
Power Center	PowerEdge-C Server	
PowerEdge-C Server	Printers	
Printers	Processor	
Processor	Removable Flash Media	
Removable Flash Media	Security	
Security	Storage Enclosure	
Storage Enclosure	Storage Peripheral	
Storage Peripheral	Storage Software	
Storage Software	System Events	

## Figure 13. Alert Category View

Edit Trap for Cl	QIDA-MIB						
Select the traps that you	want to edit. All traps can be edited.						
Trap Name or Enterpri	e OID:		Search				
Edit Traps							
	and drop it here to group by that column						
Name Name	🗑 📝 Category Name	🕈 📝 Severity	🝸 👔 Format String	T Enterprise OID	V Description	Generic Trap ID	Specific Trap ID
cpqFanEnclosureExter	dedRemoval CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Fan enclosure has been removed from system for an extende	d amount of time. 6	1454
cpqRedundancyNorma	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Redundancy has returned to normal.	6	1304
cpqPowerSupplyWarn	1g CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Power supply has detected a warning.	6	1353
cpqPowerSupplyFailur	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Power supply has detected a failure.	6	1354
cpqMemoryDeviceNor	Recoverable CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Memory device status is non-recoverable.	6	1405
= cpqChassisIntrusionD	fected CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Chassis intrusion has been detected.	6	1254
cpqVoltageProbeWarn	ng CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Voltage probe has detected a warning value.	6	1153
cpqMemoryDeviceWa	ning CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Memory device status is noncritical.	6	1403
cpqTemperatureProbe	ailure CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Temperature probe has detected a failure value.	6	1054
cpqChassisIntrusionN	rmal CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Chassis intrusion has returned to normal.	6	1252
use (KVM) cpqLogFull	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Log size is at capacity.	6	1554
cpqAmperageProbeNo	mal CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Amperage probe has returned to a normal value.	6	1202
cpqProcessorDeviceS	atusFailure CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Processor device status has detected a failure.	6	1604
cpqLogNormal	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Log size is no longer near or at capacity.	6	1552
cpqSystemPeakPower	NewPeak CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	System peak power sensor has detected a new peak value.	6	1013
cpqDeviceAdd	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Device added to system.	6	1651
cpqBatteryNormal	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Battery has returned to normal.	6	1702
cpqTemperatureProbe	lormal CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Temperature probe has returned to a normal value.	6	1052
cpqMemoryDeviceFail	re CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Memory device status is critical.	6	1404
cpqACPowerCordNorr	al CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	AC power cord has regained power.	6	1502
cpqAmperageProbeW	ming CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Amperage probe has detected a warning value.	6	1203
	IonRecoverable CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Temperature probe has detected a non-recoverable value.	6	1055
cpqVoltageProbeFailu	e CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Voltage probe has detected a failure value.	6	1154
cpqTemperatureProbe	Varning CPOIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Temperature probe has detected a warning value.	6	1053

Figure 14. Edit Trap View

The **Edit Traps** grid shows all the traps that match the filter criteria and allows modification of multiple traps in the grid before saving the changes to OME.

You can also add severity configuration for By Varbind Value severity or edit severity of variables for traps which already have severity as By Varbind Value. Once the edited changes are saved to OME, you can see the modified trap definition by navigating to Manage >> Alerts >> Alert Categories.

#### Note:

Events received in OME prior to editing the trap definition by using **Edit Trap** view will not be affected. Events received after the edited trap definition is saved will be classified based on the modified trap definition in OME.

## **Reset Built-In Trap Definitions**

The **Reset Trap** view allows you to revert the trap definitions of predefined traps, which were edited using the **Edit Trap** view, to their original state. The **Reset Trap** view grid lists all the pre-defined traps that were edited. You can filter the traps list in the **Edited Traps** grid by entering the Trap Name or Enterprise OID in the Trap Name or Enterprise OID field of respective column filter option. The grid allows the selection of multiple traps for reverting their trap definition as shown in Figure 15. When you click **Revert Traps**, the selected trap definitions will be reverted in OME to their original state after your confirmation. The status bar will display a message indicating the number of traps that were successfully reverted in OME. After the selected traps are reverted in OME, you can see the reverted (original) trap definition by navigating to **Manage >> Alerts >> Alert Categories & Definitions**.

#### Note:

- Events received in OME prior to reverting the trap definition by using Reset Trap view will not be affected. OME will classify the events received thereafter using the reverted trap definition.
- Only predefined traps in OME can be reverted using Reset Trap view. The history of edited traps is not maintained and the traps can be reverted to their original state only.

tings Logs Tutor														Search device, I
ntory <b>Alerts</b> Syst	em Update Rei	emote Tasks Cor	nfiguration											
Reset Built-	in Tran Def	finitions												
Cooct Dunt-		IIIIIIIIIIII												
Select the traps the	at you want to reve	vert to the original st	ate. Only bui	t-in traps that we	ere edited can be	reverted.								
Edited Traps														
Drag a colum	n header and dr	drop it here to gro	up by that	column										
Name	Y	Category Name	Y	Severity	Υ E	nterprise OID	Y	Format String	T Description		Generic Trap D	Y	Specific Trap ID	
pcEnvMoni	FanStateChange	Environmenta	il .	Info		.3.6.1.4.1.89		Trap indicating the fan s	ate. \$1 Dell PowerConnect Pl	C-33.xx pcEnvMonFanStateChang	e Trap 6		176	

## Figure 15. Reset Trap View

# Imported HP Server Traps in OME

After you import the trap definitions in OME, you can view them by navigating to Manage >> Alerts >> Alert Categories & Definitions.

ne manage deployment reports 3	tiings Logs Tutorials Dell Solutions	Search device, ranges, and more
vices Device Search Discovery and Inv	ntory Alerts System Update Remote Tasks Configuration	
ommon Tasks	Alert Categories	
lert Actions	Name	
lert Categories & Definitions	Srcade-Switch	
- Alert Categories	Competient	
- Brocade-Switch	Competent	
- Compellent	Del Advanced Infrastructure Manager	
- CPQIDA-MIB		
Dell Advanced Infrastructure Mar	Environmental	
- Environmental	Equal togic Storage	
EqualLogic Storage	FC-Switch	
- FC-Switch	Firewall	
	Fluid Cache	
- Fluid Cache	Fluid Storage	
- Fluid Storage	General Redundancy	
General Redundancy	HyperV Server	
HyperV Server	IDRAC	
- iDRAC	Juniper-Switch	
- Juniper-Switch	Keyboard-Video-Mouse (KVM)	
Keyboard-Video-Mouse (KVM)	Memory	
- Memory	Network	
- Network	Other	
+- Other	PDU	
D- POU	Physical Disk	
- Physical Disk	Power Carteria	
+- Power	- Ower Center Power Center	
+- Power Center	Power General PowerEdge-C Server	
- PowerEdge-C Server	Printers	
- Printers		
- Processor	Processor	
- Removable Flash Media	Removable Flash Media	
+- Security	Security	
- Storage Enclosure	Storage Enclosure	
- Storage Peripheral	Storage Peripheral	
- Storage Software	Storage Software	
+- Storage Software +- System Events	System Events	

## Figure 16. Imported Trap

## Import View Components

## Figure 17. Import View

Home Manage Deployment Reports Sett	tings Logs Tutori:	als Dell Solutions							Search device, ranges, and m	ore Q
Devices Device Search Discovery and Invent	tory Alerts Syste	em Update Remote Tasks Configuration								
Common Tasks v Alert Logs v	Import MIB									?
Alert Actions 🗸 🗸	Select a MIB file to	parse and import its trap details.								
Alert Categories & Definitions v Manage MIBs ^	Select files fo	or upload								
Import MIB										
Remove MIB										
Manage Traps 🗸 🗸 🗸 🗸										
		Browse								
	Select a MIB File:	T	Parse MIB							
	Event Details									
	Category Name:	Ţ	Apply the selected	event category to all tr	aps					
	Severity:		Apply the selected	severity to all traps						
	Traps Available	for Import								
_	Drag a column h	eader and drop it here to group by that column								
	Name	🖉 Category Name	🖉 Severity	🕜 Format String	Enterprise OID	Description	Generic Trap ID	Specific Trap ID		
									Reset All Imp	ort Traps

- Browse and Select files for upload: To choose the specific MIB.
- Parse MIB: To parse the MIB and extract trap definitions.

Select a MIB File: CPQIDA-MIB.mib   Parse MIB				
	Select a MIB File:	CPQIDA-MIB.mib	•	Parse MIB

- **Category Name:** This list includes all the category names present in the OME. It allows you to change category names of the parsed trap definitions before you import them in OME. You can select any of the predefined categories or use the newly created category name (default selection). The MIB module will be new category name (in the earlier example it is CPQIDA-MIB).
- Apply the selected event category to all traps: This check box (selected by default) will help you to change the category name for the parsed trap definitions. The "Traps" grid allows multiple row selections. If you have selected a few rows in the grid and this check box is not selected, changing the category name from the drop-down list will change category name only for the selected rows. If this check box is selected, then changing category name from the list box will update category name for all the rows.

Category Name:	CPQIDA-MIB	•	Apply the selected event category to all traps
----------------	------------	---	------------------------------------------------

**Note:** This check box overrides any selection/modification you have done in the grid. If you want to keep those changes ensure that this check box is deselected before you import data to OME.

- **Severity:** This list contains all the severity levels defined in OME. It allows you to change the severity of the parsed traps before you import them in OME.
- Apply the selected severity to all traps: This check box (selected by default) helps you to change the severity for the parsed trap definitions. The "Traps" grid allows multiple row selections. If you have selected a few rows in the grid and this check box is not selected, changing the severity by using the drop-down list will change the severity only for the selected traps. If this check box is selected, then changing the severity by using the drop-down list will update the severity for all the rows.

Severity: Normal 🔹 🗹 Apply the selected severity to all tra	Severity:	Normal	•	🗹 Apply the selected severity to all trap	s
-------------------------------------------------------------	-----------	--------	---	-------------------------------------------	---

**Note:** This check box overrides any individual selection/modification you have done in the grid. If you want to keep those changes ensure that this checkbox is unselected before you import data to OME.

- Trap:
  - Various Grid Columns

Traps A	vailable for Import								
Drag a	a column header and drop it here to	group by that column							
D N	lame 🍸	🚰 Category Name 🛛 🍸	🛃 Severity 🛛 🍸	🛜 Format String 🛛 🕅	Enterprise OID 🌱	Description V	Generic Trap ID	Specific Trap ID	7
	pqSDCardDeviceFailure	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	SD card device has detected a failure.	6	1	
🗋 d	pqBatteryFailure	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Battery has detected a failure.	6	1704	1
🗖 q	pqBatteryWarning	CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Battery has detected a warning.	6	1703	
🗉 q	pqBatteryNormal	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Battery has returned to normal.	6	1702	
D q	pqDeviceConfigError	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Device configuration error detected.	6	1653	П
E q	pqDeviceRemove	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Device removed from system.	6	1652	
E q	pqDeviceAdd	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Device added to system.	6	1651	٦
C	pqProcessorDeviceStatusFailure	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Processor device status has detected a failure.	6	1604	П
E q	pqProcessorDeviceStatusWarning	CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Processor device status has detected a warning.	6	1603	Т
D q	pqProcessorDeviceStatusNormal	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Processor device status has returned to normal.	6	1602	
E q	pqLogFull	CPQIDA-MIB	Critical	\$3	.1.3.6.1.4.1.674.0.1	Log size is at capacity.	6	1554	Т
C q	pqLogWarning	CPQIDA-MIB	Warning	\$3	.1.3.6.1.4.1.674.0.1	Log size is near capacity.	6	1553	
C	pqLogNormal	CPQIDA-MIB	Info	\$3	.1.3.6.1.4.1.674.0.1	Log size is no longer near or at capacity.	6	1552	-

## Figure 18. Traps Grid

- Name: Trap name.
- Category Name: Event categories where you want to define the trap definitions. This is an editable field. You can change the category name by using this drop-down list or use the earlier mentioned generic drop-down list.
- Severity: Event severity which you want to be displayed in the OME event console when the specific trap is received from the remote SNMP device. This is an editable field. You can change the severity using the drop-down list or use the earlier mentioned Severity drop-down list. You may see a new entry (By Varbind Value) in this drop-down list and selected by default if the MIB traps are enumeration-based variables. For additional information, see the "Severity Configuration by Value" section.
- Format String: This field helps OME to display the event description for the incoming SNMP alerts. OME parses the trap variables and replace those values in this format string. This is an editable field and you can remove the unwanted contents or variables from this field.
- Enterprise OID: Event SNMP Enterprise OID.
- Generic Trap ID: Event SNMP Generic OID.
- Specific Trap ID: Event SNMP Specific OID.
- Category ID: Unique number which is used internally.
- Package ID: Unique number which is used internally.
- **Description:** Trap description which is obtained from the MIB. This is different from Format String and OME does not use this to display the description for the received SNMP traps in the event console.

• **Filters:** Every column header has a built-in filter which can be used to view specific trap definitions.

📝 Category Name	🝸 👔 Severity 🛛 🖉 Format String	Y
CPQIDA-MIB	Select All	
CPQIDA-MIB	CPQIDA-MIB	
CPQIDA-MIB	Show rows with value that	
CPQIDA-MIB	Is equal to 🔹	
CPQIDA-MIB		
CPQIDA-MIB	And -	
CPQIDA-MIB	Is equal to	
CPQIDA-MIB		
CPQIDA-MIB	Filter Clear Filter	
CROTDA-MIR	Cical Price	

## Figure 19. Grid Column Filters

- **Import traps:** This will import all of the updated values in the grid and "Severity Configuration by value" for the specific traps.
- **Status Bar:** The status bar is displayed at the bottom of the window. The status of the last operation that was performed is reported by the status bar.

## Severity Configuration By Value

**Note:** This specific HP Server MIB (CPQIDA-MIB) has traps having trap variable-based severity. The **Severity Configuration By Value** window can be used for MIBs which have such trap definitions. The following is an example to explain this behavior.

An SNMP trap definition may have trap variables which determine the severity for that particular trap. This attempts to parse those trap variables and gives you the option to select one of those variables. After the trap is imported to OME, OME uses these specific trap variable values to determine the trap severity and classifies it in the console.

Example:

### Figure 20. SNMP Trap Definition Example Showing Trap Variable Based Severity

```
DellStatus
                               ::= INTEGER {
    other(1),
                               -- status is not one of the following:
    unknown(2),
                              -- status of object is unknown (not known or monitored)
    ok(3),
                              -- status of object is OK (normal)
    nonCritical(4), -- status of object is noncritical (warning)
critical(5), -- status of object is critical (failure)
nonRecoverable(6) -- status of object is non-recoverable (dead)
}
alertCurrentStatus
                                                      OBJECT-TYPE
    SYNTAX DellStatus
    ACCESS
                read-only
    STATUS mandatory
    DESCRIPTION
"5000.0010.0004 Current status of object causing the alert."
    ::= { alertVariables 4 }
alertSystemUp
                                                      TRAP-TYPE
    ENTERPRISE baseboardGroup
    VARIABLES { alertSystem,
                 alertTableIndexOID,
                 alertMessage,
                 alertCurrentStatus,
                 alertPreviousStatus,
                  alertData }
    DESCRIPTION
"Server Administrator has completed its initialization."
    ::= 1001
```

In Figure 20, the *alertSystemUp* trap has 6 variables. The *alertCurrentStatus* variables have 6 possible status values (defined by DellStatus. By default, the "By Varbind value" severity is selected instead of "Normal". To open the **Severity Configuration by Value** window, double-click the severity grid cell. In Figure 21, the *alertSystemUp* trap has 2 possible trap variables which have associated status values. The trap variables are available in the **Select the variable** drop-down list. By default, the first variable ( $$4 \rightarrow$  alertCurrentStatus) is selected. The grid in the **Severity Configuration by Value** window displays the possible variable values (DellStatus enumeration values). By default, the severity for all these values is set to "Normal", but you can change the severity as required and click "Ok" to save the changes.

Select the Variable:	\$4 \$4					
Drag a column heade	\$5					
Trap Variable	T	7 Severity	T	Object ID	T	Object Value
\$4		Normal		1		other
\$4		Unknown		2		unknown
\$4		Normal		3		ok
\$4		Critical		4		nonCritical
\$4		Critical		5		critical
\$4		Normal		6		nonRecoverable
\$5		Normal		1		other
\$5		Unknown		2		unknown
\$5		Normal		3		ok
\$5		Critical		4		nonCritical
\$5		Critical		5		critical
\$5		Normal		6		nonRecoverable

## Figure 21. Severity Configuration By Value Dialog Box - Trap Variables

- > Severity: Displays the severity of the trap variable values.
  - For example, for the "\$4" trap variable and Object Id "1", you can update the severity to "Warning" and then imported the data to OME.
  - When *alertSystemUp* trap is received from the remote device by OME, OME will read the 4th variable of this trap, in this case *alertCurrentStatus*, and reads its value. If the value is "1" then OME displays the trap as a "Warning".
- > **Object Value:** Displays the possible enumerations string values. For example, DellStatus.
- Object ID: Displays the possible enumerations integer values. For example, values mentioned in (n) for DellStatus.
- Trap Variable: Displays the enumerations based variables that are part of the trap. For example, *alertCurrentStatus* and *alertPreviousStatus*.

\$4			•			_
and dr	op it here to group by		imn Object ID	T	Object Value	T
	Normal		1		other	
	Unknown		2		unknown	
_	Info		3		ok	
			4		nonCritical	
	-		5		critical	
	Normal		6		nonRecoverable	
	Normal		1		other	
	Unknown		2		unknown	
	Normal		3		ok	
	Critical		4		nonCritical	
	Critical		5		critical	
	Normal		6		nonRecoverable	
		Image: Severity       Image: Severity       Normal       Unknown       Info       Normal       Orimal       Normal       Unknown       Unknown       Orimal       Critical       Critical       Critical	Severity       Severity       Normal       Unknown       Info       Normal       Warning       Critical       Normal       Unknown       Unknown       Critical       Critical       Critical	Normal     1       Unknown     2       Info     3       Normal     4       Warning     5       Critical     6       Normal     1       Unknown     2       Normal     3       Normal     3       Critical     3       Critical     3       Critical     5       Critical     5	Severity     Object ID       Normal     1       Unknown     2       Info     3       Normal     4       Critical     6       Normal     1       Unknown     2       Normal     4       Normal     6       Normal     1       Unknown     2       Normal     6       Normal     3       Critical     3       Critical     5	Severity       Object ID       Object Value         Normal       1       other         Unknown       2       unknown         Info       3       ok         Normal       4       nonCritical         Critical       5       critical         Normal       1       other         Normal       6       nonCritical         Normal       1       other         Normal       2       unknown         Normal       6       nonRecoverable         Normal       3       ok         Vanning       2       unknown         Critical       3       other         Normal       3       ok         Critical       4       nonCritical         Critical       5       critical

## Figure 22. Severity Configuration By Value Dialog Box - Severity Selection

#### Note:

- > Only one variable can be selected for *By Varbind value* based severity.
- > The last saved values will be consumed while importing the trap definitions in OME.
- Re-opening the window will show the default values and not the last saved values. The last saved values are present in the background unless you reopen the severity window.
- Severity values changes between various variables on this window will not be saved if you select different variables from the list box.

## Parsing MIBs Containing Novel NMS Comments

**Note:** This specific HP Server MIB (CPQIDA-MIB) contains NMS comments for its trap definitions. This section can be used for MIBs which have NMS comments. The following section includes an example to explain this behavior.

Some of the SNMP MIBs may contain NMS comments along with the trap definitions. This will consume them to select the default severity for those traps and format string. In Figure 23, NMS comments can be seen between DESCRIPTION and specific trap Id (::= 1001).

**Note:** If you have traps having both NMS comments and enumeration-based trap variables, NMS will take the priority. You can still select *By Varbind value* severity for those traps from the **Severity** drop-down list for those specific traps.

```
alertSystemUp
                                               TRAP-TYPE
    ENTERPRISE baseboardGroup
    VARIABLES { alertSystem,
               alertTableIndexOID,
               alertMessage,
              alertData }
   DESCRIPTION
"Server Administrator has completed its initialization."
    --Novell NMS trap annotation
                 "Server Administrator Startup Complete"
    --#TYPE
    --#SUMMARY "%s"
    --#ARGUMENTS {2}
    --#SEVERITY CRITICAL
    --#TIMEINDEX 99
    --#STATE OPERATIONAL
    ::= 1001
```

## Figure 23. Trap Definition Containing NMS Comments

OME decides the severity based on the "--#SEVERITY" field and the format string is formed with the "--#SUMMARY" and "--#ARGUMENTS" fields.

#### Note:

- > Currently, OME considers only 1 variable in the format string.
- > 2<sup>nd</sup> argument means \$3 for OME (refer to the earlier snapshot).

## HP Server MIB Module Definition and Reference MIBs

If you open the CPQIDA-MIB.mib file in a text editor, the following contents are displayed at the top section.

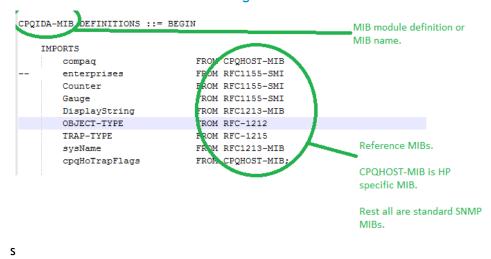


Figure 24. HP Server MIB

- MIB Module Name: This is the actual MIB name for CPQIDA-MIB.mib file. This becomes the new Event Category name when you parse this MIB.
- Reference MIBs: These are the MIBs that are required to compile and parse the CPQIDA-MIB.mib.

## Learn More

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