HP Insight Integration for CA Unicenter, Revision 3.2

User Guide

Part number: 219065-003

Third edition: October 2005

Legal notices

Part number: 219065-003

Third edition: October 2005

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About this guide

Introduction

This guide is designed for system administrators who use the Insight Integration for Computer Associates Unicenter, HP Insight Management Agents, and other HP applications to manage the operation of HP systems within a Unicenter environment.

Readers of this guide should at least be familiar with the configuration and operation of CA Unicenter and the HP Management Agents. Because of the potential risk of data loss, only individuals who are experienced in using previously listed software should implement the procedures described in this guide.

Where to go for additional help

In addition to this guide, the following information sources are available:

- Management Integration Support Site at **http://h18000.www1.hp.com/products/servers/management/integrationmodule-support.html**
- HP Management website at **http://www.hp.com/servers/manage**
- *CA Unicenter NSM User's Guide*
- *Unicenter Books Online*

Product description

The HP Insight Integration for CA Unicenter simplifies systems management by integrating the discovery and management of HP ProLiant, AlphaServer, and Integrity servers into the Unicenter Network and Systems Management (NSM) application.

The Insight Integration for Unicenter is a scalable solution that works directly with native Unicenter applications, including WorldView, Enterprise Console and the TNG Agent Technology to monitor HP servers, clients, and storage using Unicenter as the primary management console. This enables administrators to manage events for HP hardware and other enterprise resources from a common Unicenter interface..

Additional in-depth data for HP hardware is available via integrated menu items to access the HP System Management Homepage, HP Systems Insight Manager and HP Integrated Lights-Out (iLO) management tools.

Feature overview

The HP Insight Integration for CA Unicenter offers the following features:

- Integrates into CA Unicenter 2.4, 3.0, and 3.1 hosted on Windows 2000 and Windows XP platforms
- Support for HP Insight Management Agents 5.0 through 7.40
- Multiple installation options enable easy integration with single system and distributed Unicenter environments
- HP systems clearly defined by a specific class in the Unicenter Repository
- Second-level discovery to identify HP nodes on the WorldView maps by device class and operating system
- Unique icons for HP Systems Insight Manager servers and RILOE / iLO management processors
- Comprehensive integration with Unicenter Agent Works technology enables HP hardware to be monitored directly through Unicenter Node views
- Hardware status represented through color-coded icons at all levels, from the Unicenter WorldView map through Node View
- Monitors major HP hardware subsystems, including System Health, Drive Array, SCSI, Fibre Channel, Clustering, NIC, Remote Insight, and host operating systems
- Over 400 HP SNMP events for servers, clients, and storage configurations, received and translated at the Unicenter Enterprise Console
- In-context application launch to HP Systems Insight Manager provides access to additional cross-platform life cycle management tools for a broad range of HP hardware resources, such as software version control, inventory reporting, storage management, printer and client management, and systems deployment
- Integrated menu items to access the HP System Management Homepage, plus RILOE and iLO management processors
- Comprehensive installation and user reference documentation

Revision history

Version 1.0 of the HP Insight Integration for CA Unicenter was initially made available by Computer Associates in 1997.

Version 1.1 has been distributed using two individual deliverables: cim_tng011899.zip for Unicenter 2.1 and cim_tng220322.zip for Unicenter 2.2. There also has been an intermediate update of the HP message records to support HP Insight Management Agents 4.21: cpqtraps.zip.

During 1999, HP and CA worked to transfer all future development, distribution, and support of the integration to HP. Compaq Insight Manager for CA Unicenter Version 2.0, built on the previous releases from CA, was made available in April 2000. This was the first integration with Unicenter to be distributed by HP.

Version 2.1 was the second release from HP.

Version 3.0 was released to support Unicenter 3.0.

Version 3.0a was released to support up to version 6.40 of the HP Management Agents.

Version 3.1 was released to support Unicenter NSM 3.1 and up to version 7.00 of the HP Management Agents.

Version 3.2 is the current release and supersedes all previous versions.

What's new in version 3.2

The enhancements and additions to version 3.2 of the Insight Integration for CA Unicenter are detailed in the following sections.

What's new overview

The following features are new to the Insight Integration for CA Unicenter version 3.2:

- HP hardware discovery and SNMP notifications updated to support HP Insight Management Agents 7.40
- Integration with HP Web Jetadmin
- Option to generate Unicenter event messages directly from HP Systems Insight Manager
- New installation program provides more flexible installation options
- Alternative DSM policies to monitor HP server events. Requires Insight Management Agents v6.30 and later
- Updated DSM policies for monitoring the overall status of the HP Management Agents

What's new in detail

The following features are new to Insight Integration for CA Unicenter version 3.2:

- HP message records updated to include definitions provides by HP Insight Management Agents v7.40
- Updated the integration kit with version 7.40 of the HP Management Information Bases (MIBs)
- Added directory, \hpqnsm32\cpqem\new32, which contains only the new message records since the last release of the Insight Integration for CA Unicenter (revision 3.1)
- Added directory, \hpqnsm32\cpqem\updated32, which contains only the message record files that have been modified since the last version of the Insight Integration for CA Unicenter (revision 3.1)
- Updated the overall status monitoring policy for Unicenter 3.x to minimize monitored items. Modified all state messages to begin with "HP_".
- Added Message Records and Actions for events from HP OpenView Storage Area Manager (OVSAM). These message records support OVSAM version 3.1 and above.
- Support for the discovery of HP systems running the following operating systems:
  - Tru64 UNIX
  - OS/2
  - SCO UnixWare
  - SCO OpenServer Release 5
  - Novell NetWare 5.x
  - Windows NT
  - Windows XP
  - Windows 2000
  - Windows 2003
  - Windows 9x
  - Linux

The following class definitions have been added to the integration module. The Insight Integration adds these classes to the Common Object Repository (CORE).

- HP_Host
  - HP_UnixWare
  - HP_Linux
  - HP_Novell
  - HP_WindowsNT_Server
  - HP_Windows2000_Server
  - HP_Windows_NetServer
  - HP_InsightManager
  - HP_RemoteInsight
  - HP_IntegrityServer
  - HP_SANappliance
  - HP_TaskSmart

- HP_Workstation
  - HP_DECSystem
  - HP_OS2
  - HP_SCOUnix
  - HP_Windows95
  - HP_Windows9x
  - HP_WindowsNT
  - HP_Windows2000
  - HP_WindowsXP

System requirements

To use the Insight Integration for CA Unicenter, the following hardware and software requirements must be met.

Monitored systems

- Intel® Pentium®-based system or better
- 64 MB RAM
- One of the following operating systems with HP Insight Management Agents installed:
  - Microsoft Windows 2003
  - Microsoft Windows XP
  - Microsoft Windows 2000
  - Microsoft Windows NT 4.0
  - Microsoft Windows 95 (desktop and portables only)
  - Microsoft Windows 98 (desktops and portables only)
  - Novell NetWare 3.12 or later
  - SCO UnixWare
  - SCO OpenServer
  - IBM OS/2
  - Linux
  - VMware ESX
  - True64 UNIX
  - OpenVMS
- SNMP installed and running
- HP Server Management Agents 5.0 or later installed and running

HP Systems Insight Manager

HP Systems Insight Manager version 4.1 or later must be installed and running.

Unicenter

- Unicenter Release 2.4
- Unicenter NSM Release 3.0
- Unicenter NSM Release 3.1

IMPORTANT: The Unicenter environment must also include Microsoft SQL Server 7 or later.

Product availability

The HP Insight Integration for CA Unicenter is easy to obtain by registering and downloading the application from **http://www.hp.com/servers/integration**.

Installation

Installation overview

The following sequence describes the general flow of events during the installation of the Insight Integration for CA Unicenter into a Unicenter environment.

1. The setup.exe program performs the following:
   a. The files listed in Table 2-1 are copied to the appropriate places in the Unicenter directory.

Table 1 Files copied into the Unicenter system

Files	Source location	Destination
Icons	hpqnsm32\cpqwv\icons	NSMDIR\icons
Models	hpqnsm32\cpqwv\models	NSMDIR\models
Images	hpqnsm32\cpqwv\images	NSMDIR\images
HP MIBs	hpqnsm32\cpqwv\mibs	NSMDIR\schema\included
HP MIBs	hpqnsm32\cpqwv\mibs	NSMDIR\services\config\mibs
Browser file	hpqnsm32\cpqwv\browser	NSMDIR\config\abrowser
Policy files	hpqnsm32\cpqwv\policy\3.0	NSMDIR\services\config\aws_wvgate
Class definition	hpqnsm32\cpqwv\classes\3.0	NSMDIR\services\config\aws_wvgate
Insight Manager launch files	hpqnsm32\cpqwv	NSMDIR\bin

   b. The MIBs are deposited in the CORE system.
   c. The Insight Manager class is loaded.
   d. The Distributed State Machine (DSM) is reset.
2. The cpqload batch file in the \cpqem directory loads the HP message records into the enterprise management database.
3. The new HP class definitions are installed into the CORE.
4. Migration of object from old to new classes is performed by the user.
5. Discovery/Classification of HP devices is performed by the user.
6. After the integration is loaded, the HP Insight Management Agent definitions are populated into the Unicenter WorldView for use with all other Unicenter applications and utilities.

NOTE: Although the HP Insight Integration is designed for installation as a whole, some elements can be installed individually by command line or specific scripts. For those customers who want to install the HP MIBS, the cpqmibs.bat batch file is provided in the \cpqwv\mibs directory.

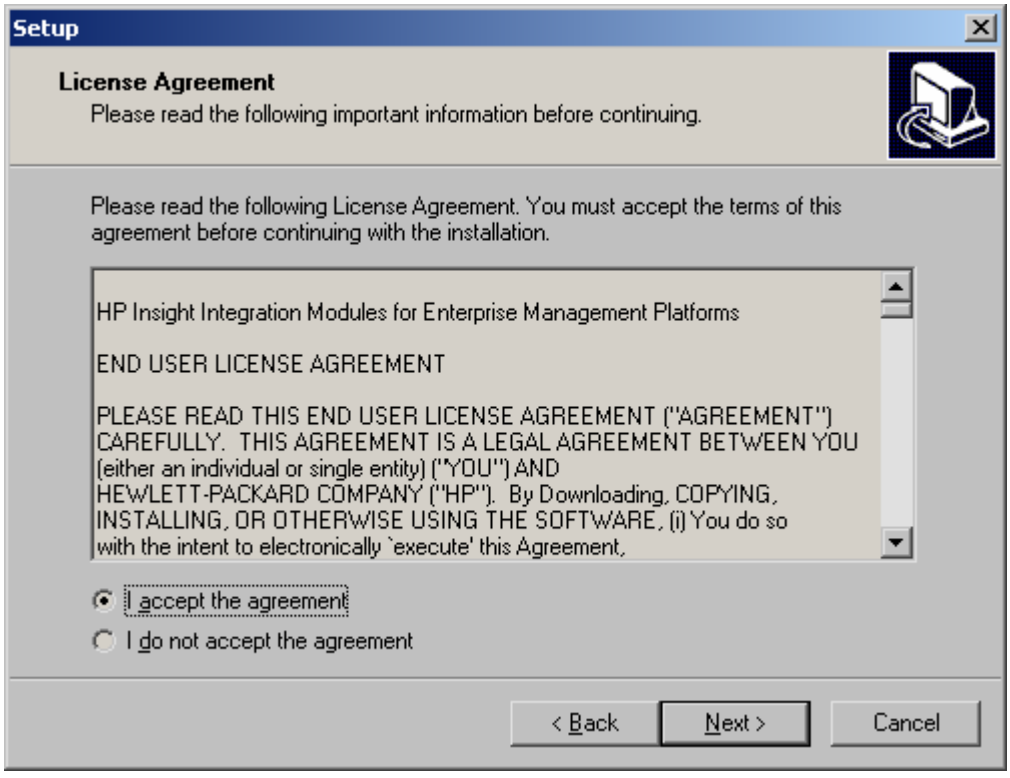
Installing the integration

1. Unzip the integration module to your local hard drive.
2. Execute SETUP.EXE to install the integration. During the installation, you will be prompted to connect to the Unicenter repository. Depending on the options selected, you might be prompted to connect to the repository more than once. Be sure to have the following information available:
   a. The name of the Common Object Repository system.
   b. The username to log into the database.
   c. The password to log into the database.
   d. The SNMP community string to use for discovery.
3. The welcome screen displays (Figure 1). Click **Next** to continue.

Figure 1 Setup wizard window

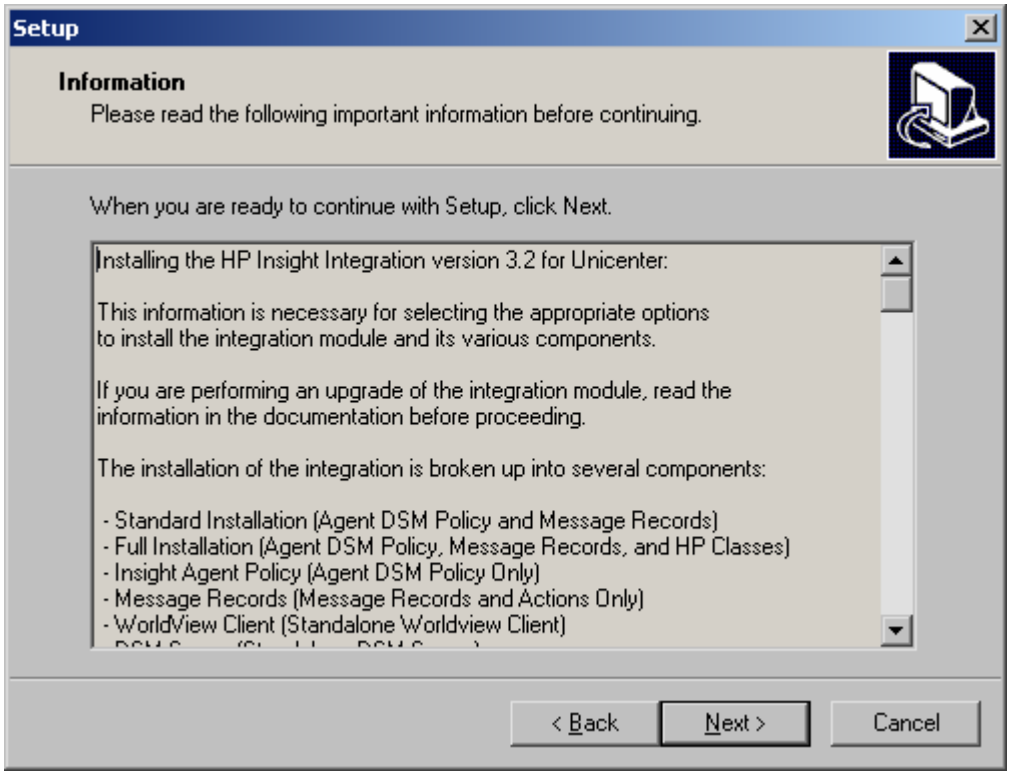
4. The license agreement displays next. Select **I accept the agreement,** and click **Next** to continue.

Figure 2 License agreement window



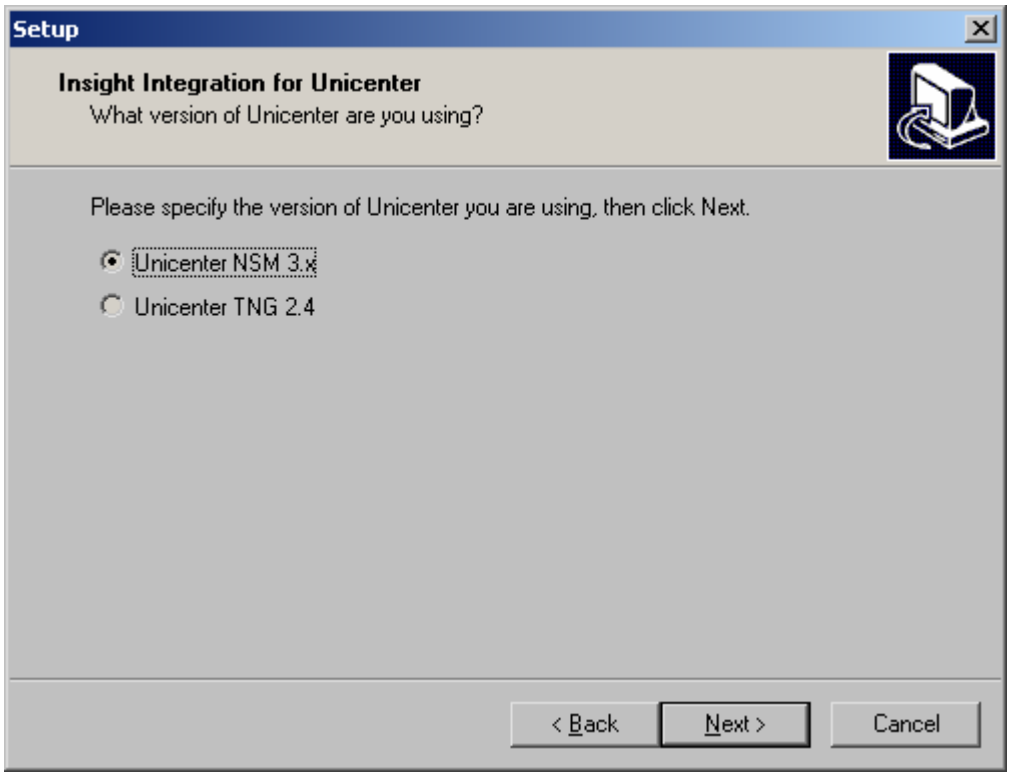
5. The install notes are displayed on the next screen(Figure 3). Review this information before proceeding as it provides an overview of the options you will be given during the installation. Click **Next** to continue.

Figure 3 Setup wizard information



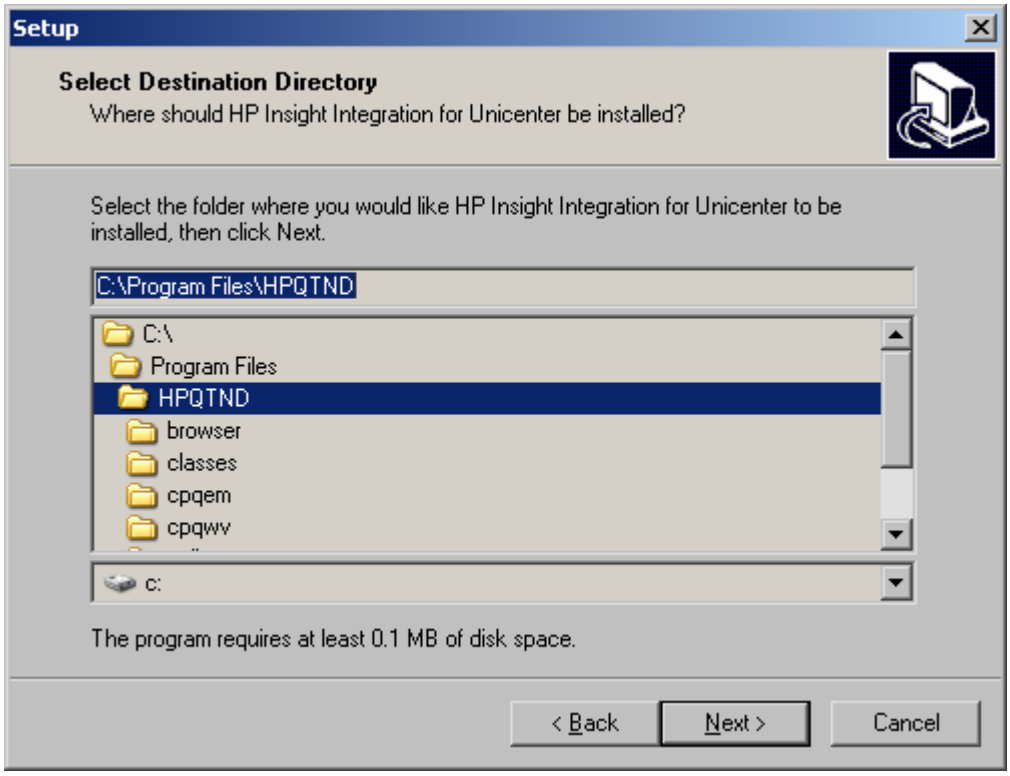
6. Select the version of Unicenter being used. This version of the Insight Integration for Unicenter supports Unicenter TNG 2.4 and Unicenter NSM 3.x. Click **Next** to continue.

Figure 4 Insight Integration for Unicenter window



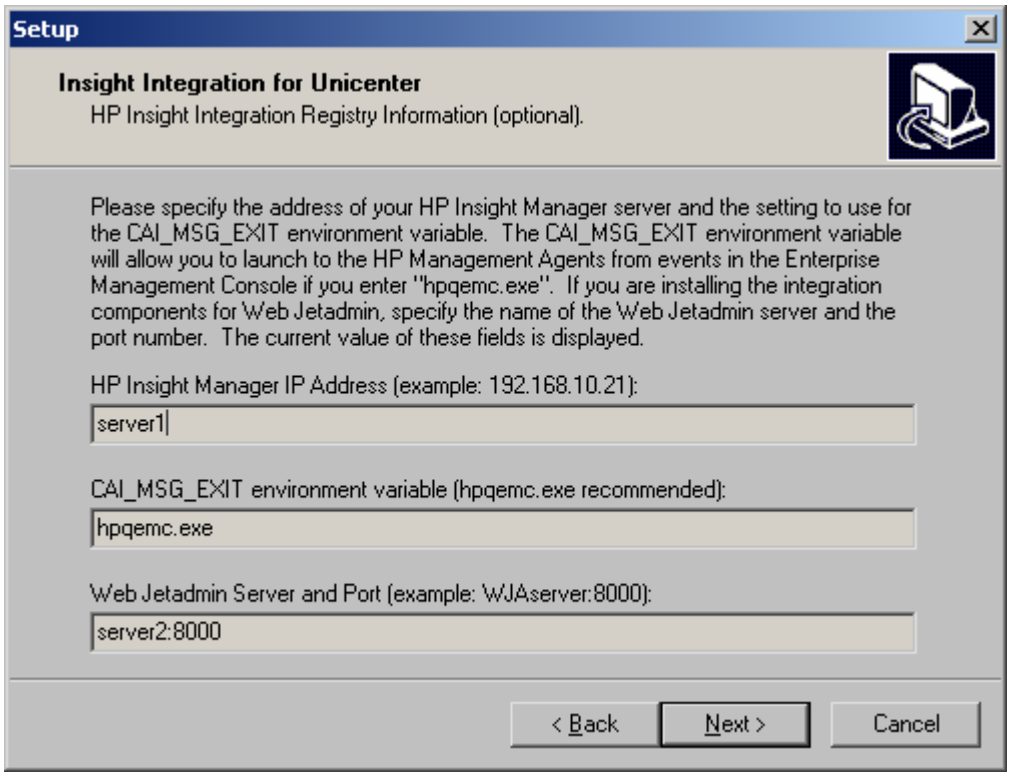
7. Select the directory where you want to install the integration (C:\Program Files\HPQTND is the default), and click **Next** to continue.

Figure 5 Select destination directory window



8. The Insight Integration Registry Information screen displays next (Figure 6). This information is optional, but is designed to help establish connectivity between the Unicenter application, HP Systems Insight Manager and HP Web JetAdmin, as appropriate.
   a. Enter the Name or IP address of your Systems Insight Manager server in the first field.
   b. Enter the program to execute when you right-click and select **User action** in the Enterprise Management Console in the second field. The hpqemc.exe program will launch the browser to the Web agents on the node in selected event.
   c. Enter the Name and port number of your Web Jetadmin server in the third field. Click **Next** to continue.

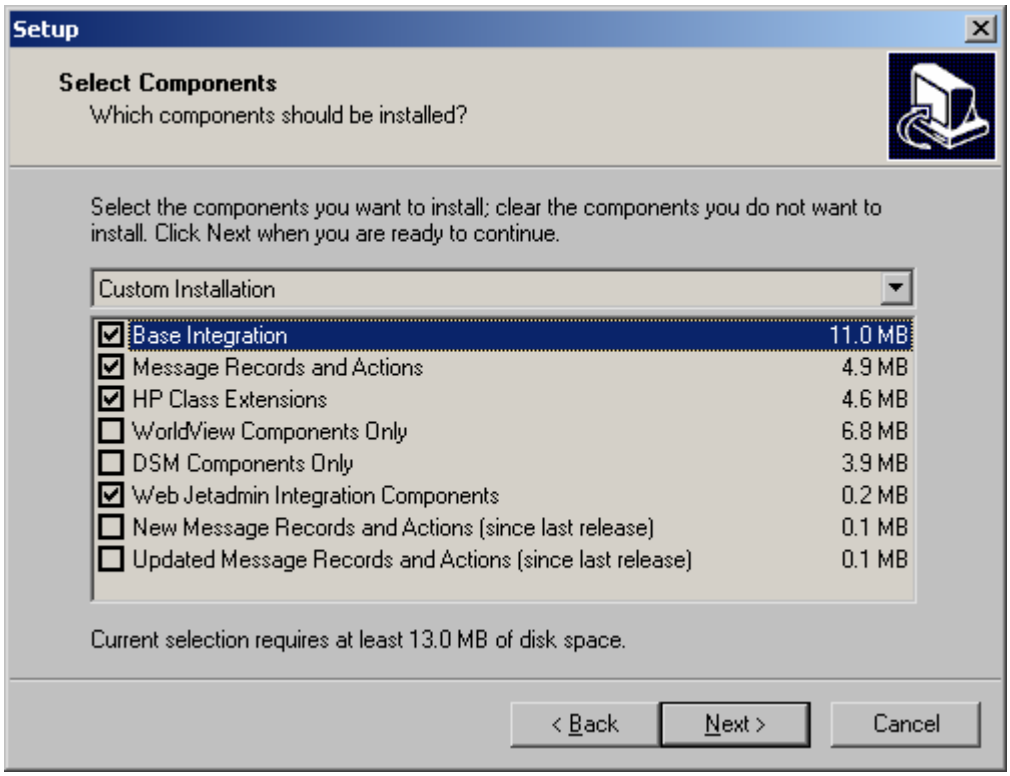
Figure 6 Insight Integration for Unicenter window



9. Select the desired installation option. The installation of the integration is broken up into several components. The following install options are provided:
   - Standard Installation (Agent DSM Policy and Message Records)
   - Full Installation (Agent DSM Policy, Message Records, and HP Classes)
   - Insight Agent Policy (Agent DSM Policy Only)
   - Message Records (Message Records and Actions Only)
   - WorldView Client (Stand-alone Worldview Client)
   - DSM Server (Stand-alone DSM Server)
   - Web Jetadmin Integration Components
   - Upgrade Existing Integration
   - Custom Installation

   Click **Next** to continue.

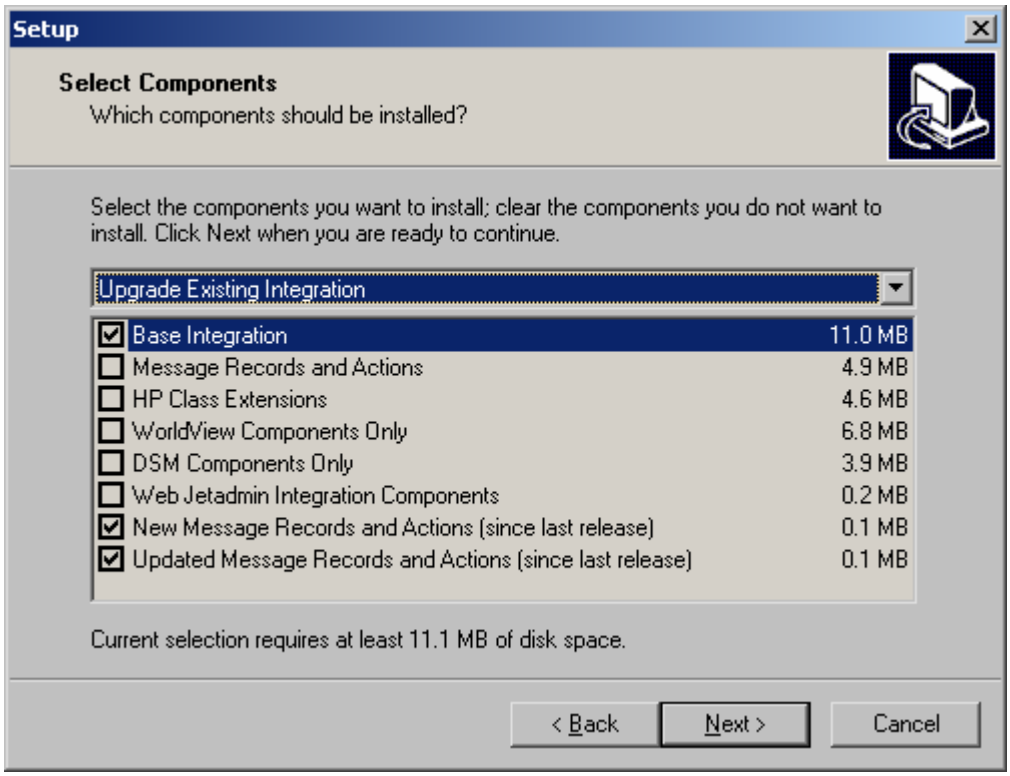
Figure 7 Select Components window



10. An upgrade option is now provided as one of the installation options. This option upgrades the Base Integration components (agent files, policy files, etc.), installs the new HP message records and actions that have been added since the last release, and installs any updated HP message records and actions that have been changed since the last release of the Insight Integration into the Unicenter application.

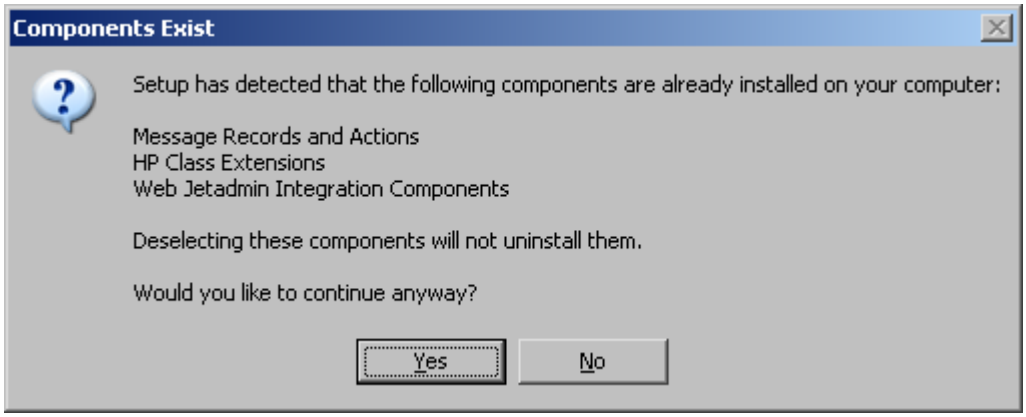
Note: The upgrade option runs the hpqrmv.exe program. This program removes all existing InsightManager agent objects and the InsightManager class so that the new policy files will be installed correctly. Any existing HP message record definitions listed in the updated files will be removed before the new definitions in the \updated32 directory are installed.

Figure 8 Upgrade Existing Integration option



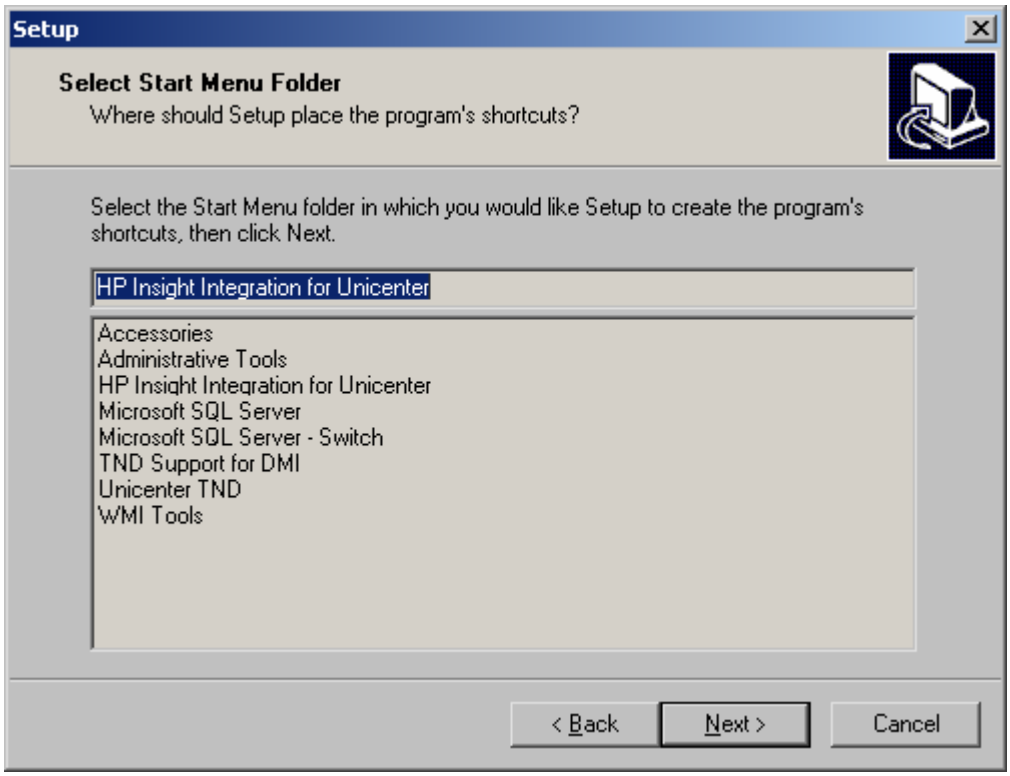
11. If you select the upgrade option, a message similar to the following figure will appear when you select **Next.** The message lets you know what integration components are installed and that these components will not be removed by proceeding. Click **Yes** to proceed from this message.

Figure 9 Components Exist window



12. Select the Start Menu folder where the integration items will be installed (Figure 10). HP Insight Integration for Unicenter is the default folder. Click **Next** to continue.

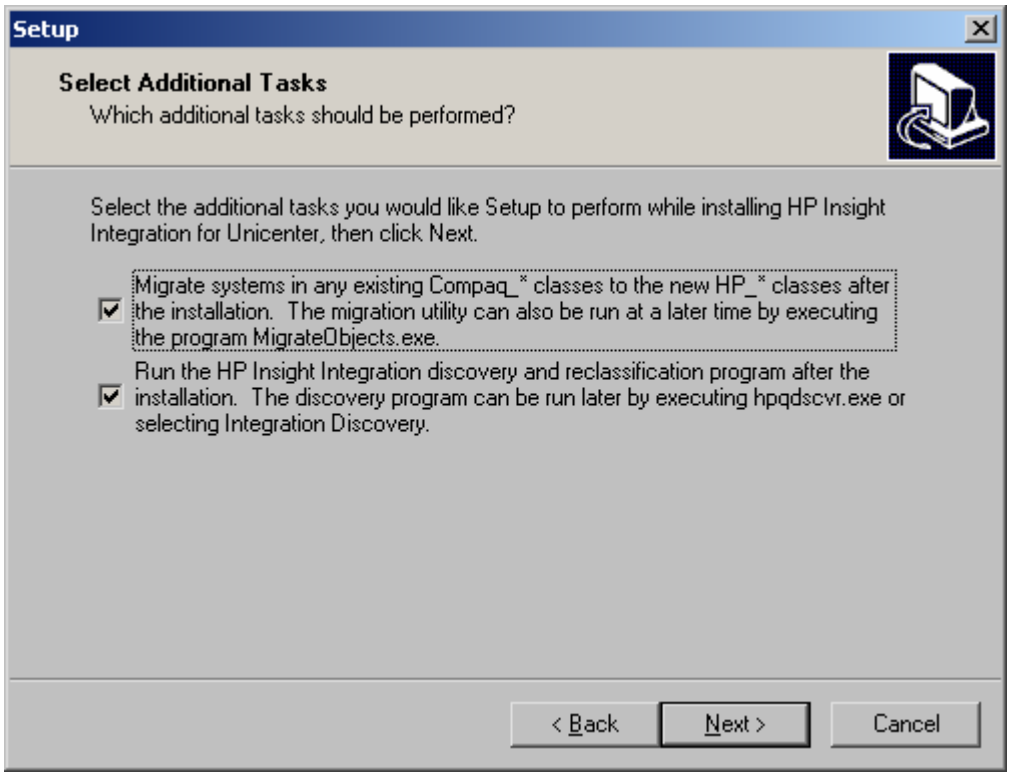
Figure 10 Select Start menu Folder window



13. Select whether to run the integration discovery program or the migration program after the installation program is complete (Figure 11).
    a. The migration program is the migrateobjects.exe file and is used to move objects from any existing Compaq classes to the new HP classes. The user can run this program at any time from the command line.
    b. The discovery program is the hpqdscvr.exe file and can be executed at any time by the user, either from the command line or from the Start Menu.

    Click **Next** to continue.

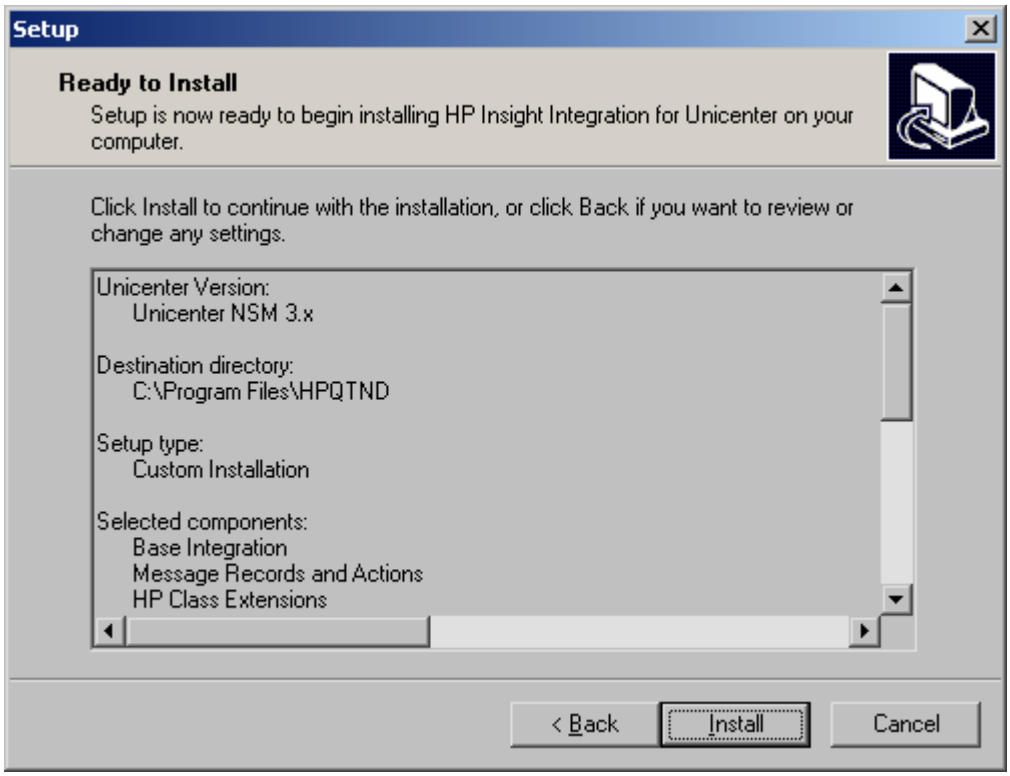
Figure 11 Select Additional Tasks window



14. Review you selections and click **Install** to begin. Verify that you have the following information before you begin the installation:
    a. Name of the repository system (example: REPOSITORY)
    b. User name to log into the repository (example: sa)
    c. Password to log into the repository (example: password)
    d. SNMP community string to use for discovery (example: public)

Note: Installing the new policy files (part of the base integration) will run the hpqrmv.exe program to remove the existing InsightManager agent objects and the InsightManager class. The program is executed so that the new policy files provided with the Insight Integration will be installed correctly.

Figure 12 Ready to Install window



Installation notes

Details on the installation steps and the features of the integration are provided in the other sections of this document. It is recommended you review these other sections before installing the Insight Integration.

If you are upgrading from a previous version of the Insight Integration, any existing HP class definitions and menu items will be deleted before the new definitions are loaded.

Message records

If you have a previous installation of the HP message records, you might only want to load the message records that are new in this version of the Insight Integration. The new message records are located in the hpqnsm32\cpqem\new32 directory. Instead of installing the message records from the installation program, you can run the script in this directory to only install the new message records.

The hpqnsm32\cpqem directory contains all the HP message records, including the new ones. You might also want to update any existing message records that have been changed since the previous release of the integration. These updated message records are located in the hpqnsm32\cpqem\updated32 directory.

You can execute the cpqload installation script on the Enterprise Management system to install all the HP message records and actions.

WorldView classes

These steps detail the installation of the new discovery features and the new device classification. Refer to the "Extended Discovery of HP Systems" section in Chapter 3 for more details.

To manually load the HP classes, change to the hpqnsm32\cpqwv\classes directory and execute the hpqclass program.

The gwclass.dat file is now modified automatically by the installation program. If you install the HP classes manually, you must edit this file to include HP_Host|HP_Workstation| at the end of the file. Also, if the integration is installed multiple times, the user should check this file to remove any extra occurrences of HP_Host|HP_Workstation| at the end of the file. The file is located in the Unicenter Directory\services\config\aws_wvgate directory.

Extended discovery

To correctly discovery and identify HP systems within Unicenter using the specific icons provided with the Insight Integration, the following must be performed from the Worldview host..

From the \hpqnsm32\cpqwv\classes directory, execute hpqdscvr.exe. This program connects to the Unicenter CORE and checks the devices listed to see if they are HP systems running HP Insight Management Agents. The format of the command is:

```
HPQDSCVR RepositoryName UserName Password Community S/R
```

The S or R parameter is used to specify whether you wish to discover and reclassify all systems (S) or only Remote Insight devices (R). If the specified user account does not have a password, enter "B" for the password.

Stop and restart the Unicenter Severity Propagation Service.

Community strings

The Insight Integration for CA Unicenter uses "public" as the default community string for discovery and monitoring the HP Management Agents. If a different community string is being used, the Pollset for the InsightManager class should be updated with the correct community string. Additionally, the DSM wizard should also be executed to update the InsightManager class with correct community string.

Distributed installation of the integration module

The Insight Integration installation program provides DSM-only or Worldview-only installation options.

This section describes the destination for each of the files in the Insight Integration for CA Unicenter for a distributed installation of CA Unicenter. This information can be used to perform a manual install or removal of the integration in a distributed Unicenter environment.

For a manual installation, the policy and class definition sources are not fully specified. From the directory listed, you must go to another level into the correct version directory (2.4).

Documentation and installation scripts can stay in the source directory for the integration module.

WorldView installation

Run the integration installation program on the WorldView system and on the component selection screen select **WorldView Components Only.**

If you want to install the additional HP Classes, select **HP Class Extensions.**

DSM installation

Run the integration installation program on the DSM system and on the component selection screen, select **DSM Components Only.**

Enterprise Management installation

Run the integration installation program on the Enterprise Management Console system and on the component selection screen, select **Message Records and Actions.**

WorldView and DSM components

The Insight Integration includes new options for installing to a stand-alone WorldView client or a stand-alone DSM system. The batch files listed in the following table were previously provided and are no longer needed.

Batch files in the \dinstall directory (cpqwv.bat and cpqdsm.bat) install only the WorldView and DSM components of the Insight Integration. Each batch file takes source and destination directory arguments.

Before running cpqdsm.bat, edit the file to reflect the version of Unicenter being used. By default, cpqdsm.bat copies the policy files for Unicenter 2.4.

In addition, new HP classes can be imported into the CORE by executing hpqclass.exe from the WorldView host.

For example:

```
C:\HPQNSM32\DINSTALL\CPQDSM.BAT C:\HPQNSM32\CPQWV C:\TNG
C:\HPQNSM32\DINSTALL\CPQWV.BAT C:\HPQNSM32\CPQWV C:\TNG
```

Table 2 WorldView components

Files	Source location	Destination
Icons	hpqnsm32\cpqwv\icons	NSMDIR\icons
Models	hpqnsm32\cpqwv\models	NSMDIR\models
Images	hpqnsm32\cpqwv\images	NSMDIR\images
HP MIBs	hpqnsm32\cpqwv\mibs	NSMDIR\schema\included
HP MIBs	hpqnsm32\cpqwv\mibs	NSMDIR\services\config\mibs
Browser File	hpqnsm32\cpqwv\browser	NSMDIR\config\abrowser
Insight Manager Launch File	hpqnsm32\cpqwv	NSMDIR\bin
Class Definition Files	hpqnsm32\cpqwv\classes	hpqnsm32\cpqwv\classes
Icons	hpqnsm32\cpqwv\icons	NSMDIR\icons

Table 3 DSM components

Files	Source location	Destination
Browser Files	hpqnsm32\cpqwv\browser	NSMDIR\config\abrowser
Policy Files	hpqnsm32\cpqwv\policy	NSMDIR\services\config\aws_nsm
Class Definition	hpqnsm32\cpqwv\classes	NSMDIR\services\config\aws_wvgate
HP MIBs	hpqnsm32\cpqwv\mibs	NSMDIR\services\config\mibs
Agent Icons	hpqnsm32\cpqwv\icons\cim*.ico	NSMDIR\icons
Browser Files	hpqnsm32\cpqwv\browser	NSMDIR\config\abrowser

If you have trouble browsing the HP MIBs after executing the installation scripts, run tngdir\services\bin\install_cpqmibs.bat.

NOTE: The install_cpqmibs.bat file can be run from the DSM machine or the WorldView machine.

Event Management components

HP message records are in the \hpqnsm32\cpqem directory. Copy these to the system running the Enterprise Management components and run the cpqload.bat file.

Removing the Insight Integration

NOTE: The first steps of the uninstall moves the HP classified devices back to the default Unicenter classes and deletes the HP classes from the repository. HP_RemoteInsight devices are moved to the Host class.

To remove HP Insight Integration for Unicenter, select **Start>Programs>HP Insight Integration>Uninstall,** or:

1. Open the Control Panel.
2. Double-click **Add/Remove Programs.**
3. Select **HP Insight Integration for Unicenter.**
4. Click **Change/Remove.**
5. Click **Yes** when prompted to remove the Insight Integration for Unicenter.

Addressing upgrade problems and manual removal

By default, the installation program provided with the HP Insight Integration for CA Unicenter will perform any necessary steps for upgrading from an existing version. If the Insight Integration has been previously uninstalled, the provided installation program will automatically remove any remaining components as needed before installing the new files. The information in this section is provided in case problems arise and manual removal steps are required.

The program hpqrmv.exe and the TRIX Script deletecpqwvobj.txt have been provided in the Tools directory to aid in upgrading the integration module. One of these utilities can be used instead of the following manual upgrade procedure.

IMPORTANT: It is always advisable to have a backup of the repository before performing any upgrades.

NOTE: If this is a new installation of the integration module, you are not required to follow this procedure.

To upgrade a previously installed integration module, run the hpqrmv.exe program to remove the Insight Manager objects and to delete the Insight Manager class.

To manually remove the integration:

1. Delete the previous versions of the HP message records. Change to the hpqnsm32\cpqem\remove directory and run the cpqem_remove script. Alternatively, you can access these messages through the Enterprise Management Messages window. All HP/Compaq entries have 232 in the Message ID field or "HP –" in the Description field. Deleting these entries will prevent duplicate entries from existing when the new message records are installed.

   IMPORTANT: Be sure to save any customized message records before deleting the existing files.

2. Change to the hpqnsm32\cpqwv\ directory.
3. Execute the HPQUNCLASS command and enter the repository name, user name, and user password. For example, `hpqunclass Repository User Password`.
4. Reclassify any devices that were manually changed to HP devices using the pop-up menu option or the reclass command.
5. To delete the previous definition of the HP Insight Manager class:
   a. Start the TNG Object Browser by selecting **Start>Programs>Unicenter WorldView>Object Browser.**
   b. In the Object Browser tree view, navigate to **TNGRoot>ManagedObject>Agent>InsightManager.** Select the Insight Manager entry to display all the Insight Management Agents.
   c. Delete all the Insight Manager objects displayed. These objects must be deleted before the Insight Manager class definition can be deleted.

      IMPORTANT: Do not select the Delete Child Objects option.

   d. Close the Object Browser window.
   e. Start the TNG Class Wizard by selecting **Start>Programs>Unicenter WorldView>Class Wizard.**
   f. Select the **Modify Existing Class option,** and then browse the tree to **TNG Root>Managed Object>Agent>InsightManager.**
   g. Select **InsightManager** and click **Delete Class.** Click **Yes** to confirm when prompted.

      NOTE: If the error "Cannot delete class Insight Manager, Unicenter error code 47" is returned, then all instances of Insight Manager were not deleted earlier. Repeat the previous procedure to delete all Insight Manager instances.

   h. Click **Cancel** to close the Class Wizard window.
6. Delete the previous definitions of the HP defined menus:
   a. Start the TNG Object Browser by selecting **Start>Programs>Unicenter WorldView>Object Browser.**
   b. In the Object Browser tree view, navigate to TNG Root, and then select the **Pop-up Menu** entry.
   c. Delete the instances of CIMAgt listed in the left window.

d. Close the window.

7. Delete the previous definitions of the HP defined methods.
   a. Start the TNG Object Browser by selecting **Start>Programs>Unicenter WorldView>Object Browser.**
   b. In the tree view, navigate to T**NG Root>Method.**
   c. Delete the instance of CIM listed in the left window.
   d. Delete the instance of CPQRIB1 listed in the left window.
   e. Delete the instance of CPQTS listed in the left window.
   f. Delete the instance of CWA listed in the left window.
   g. Delete the instance of HPIM7 listed in the left window.
   h. Delete the instance of HPIM72 listed in the left window.
   i. Close the window.
8. Change to the hpqnsm32\tools directory.
9. Execute the uninstall.bat file passing it the Unicenter installation directory as a parameter. This deletes all the files added to the Unicenter installation directory by the integration.

Feature overview

Unicenter WorldView integration

The Insight Integration for CA Unicenter provides integration with the Unicenter WorldView interface. These features include icons for the 2D and 3D WorldView maps, an Agent View for the HP Insight Management Agents, and the Insight Manager class definition.

WorldView map

The Insight Integration displays systems in the Unicenter WorldView interface. The Unicenter Explorer (Figure 13 and Figure 14) and Unicenter 2D Map (Figure 15) interface will display HP specific icons on discovered systems.

Figure 13 Unicenter Explorer–Explorer view

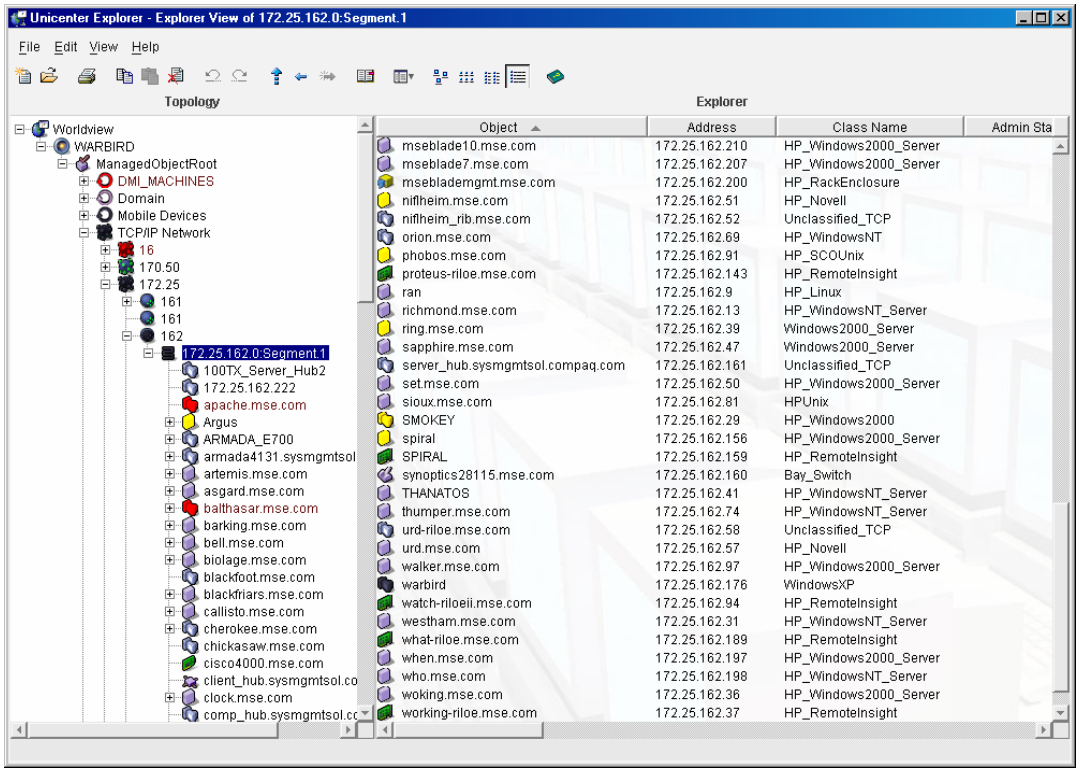


Figure 14 Unicenter Explorer–2D map view

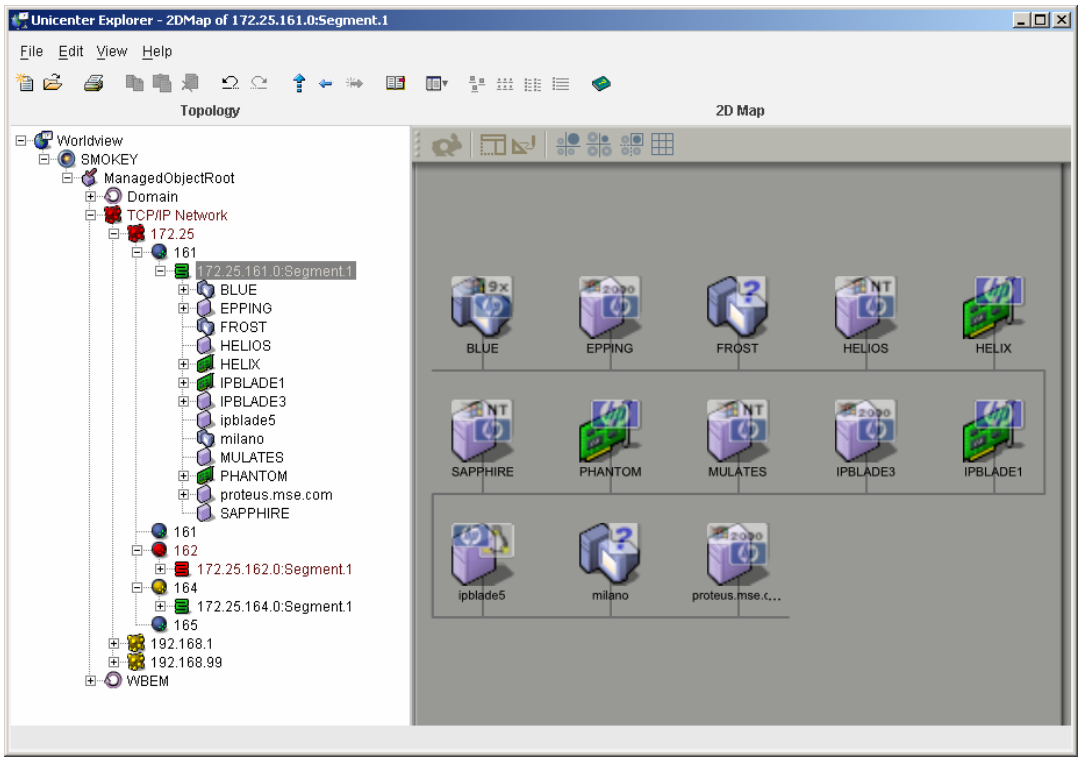
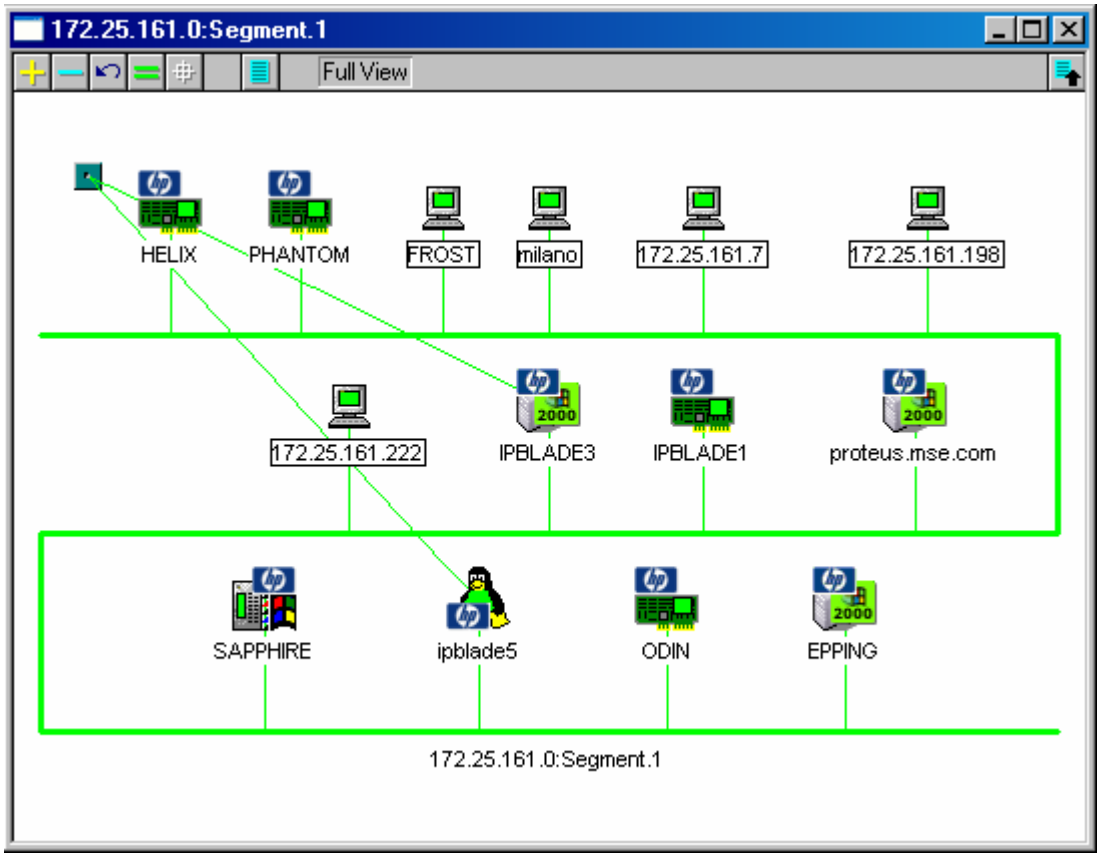


Figure 15 Unicenter 2D map



Class definition for the Unicenter repository

The Insight Manager class definition is configured inside a file named insightmanager.wvc for Unicenter 2.4 or later. All the properties, menus, status definitions, and methods for the HP Management Agent class are defined within this file. To manually load the integration outside of the provided installation program, change to the directory in which insightmanager.wvc is located and issue the following command:

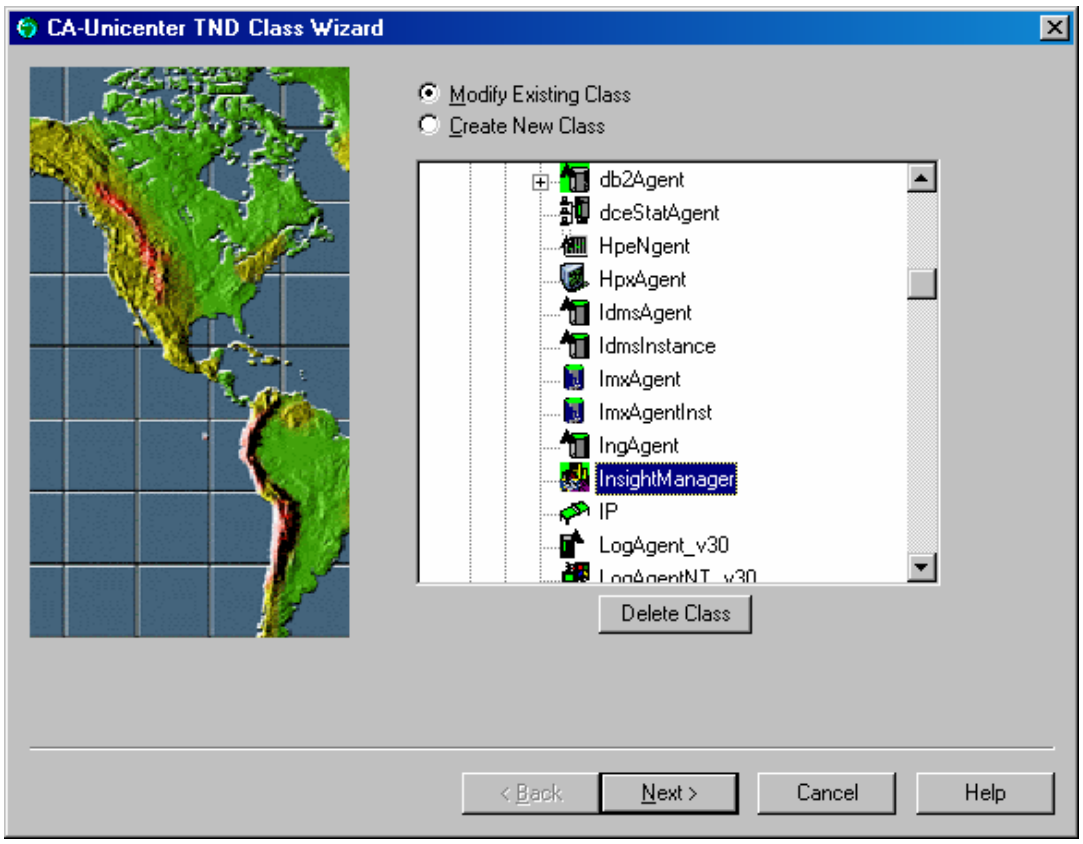
```
awwvcfg -c insightmanager.wvc
```

This command will load the entire definition.

NOTE: If this class is already defined, you will not receive an error message, and the command will not execute. It will not overwrite a previous installation of this class.

If it is necessary to reload this class, first delete the class using the hpqrmv.exe command in the hpqnsm32\tools directory, or by using the Unicenter Class Wizard, as shown in Figure 16. The class InsightManager can be found under the Agent subclass.

Figure 16 Unicenter Class Wizard



Unicenter Agent Technology integration

The Insight Integration for CA Unicenter provides integration with the Unicenter Agent Technology. Features include the definition for the InsightManager class and policy files for monitoring the HP Insight Management Agents.

Policy definition for agent status detection

The policy definition for the HP Insight Management Agents is used by the Unicenter Agent Works component. Status changes are detected by polling the HP Insight Management Agents, and the gathered information is translated into policy. This policy will set the status for each of the discovered HP Insight Management Agents inside the Unicenter repository.

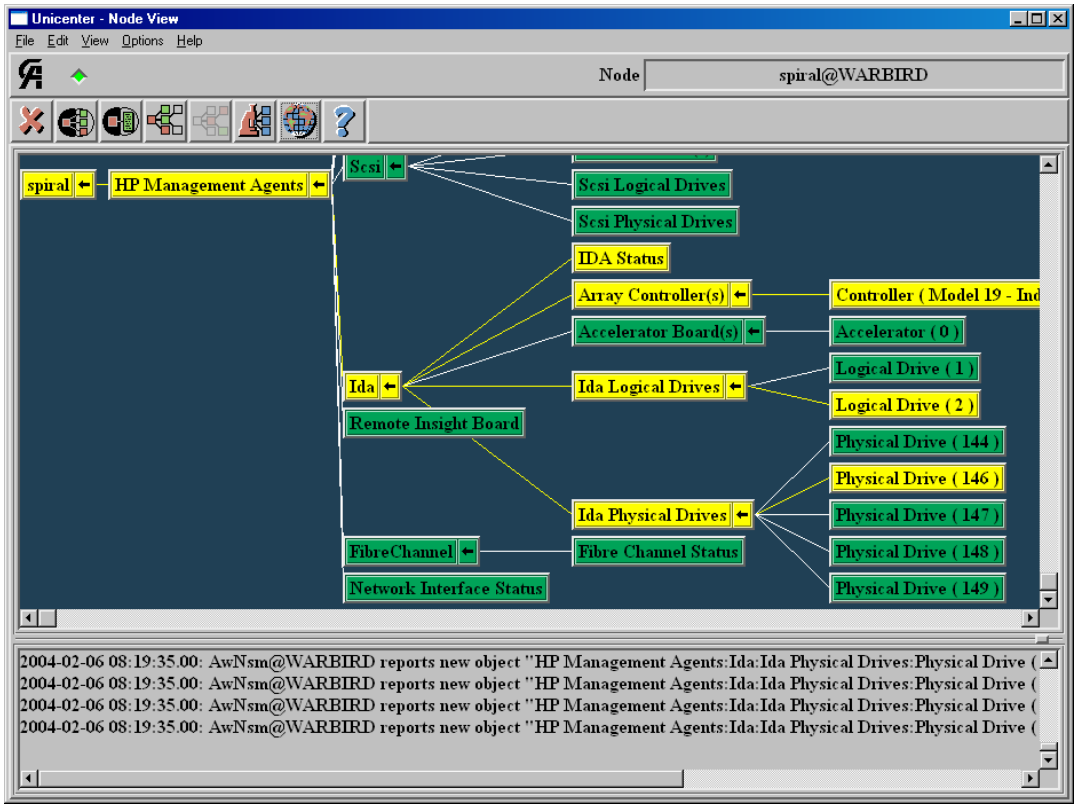
HP Node View

The Insight Integration includes the ability to monitor the status for HP hardware subsystems through the Unicenter Node View. By right-clicking the Insight Agent icon in the Unispace container and selecting the Node View

option, you can expand the nodes to display lower-level objects, and drill down to view HP Insight Manager MIB icons at the system variable level.

Figure 17 shows the Node View status information window, and illustrates how the various status levels of HP hardware subsystems are represented using color-coded icons.

Figure 17 Unicenter Node View showing expanded HP Management Agents



Overall status policy

The Insight Integration includes an additional set of policy files that provide a high-level view of HP hardware subsystem status. These policies are useful in situations where it is necessary to limit the amount of polling traffic generated in the DSM for HP devices.

NOTE: The overall status policy files are not installed by default, but are provided as a user option.

The directory hpqnsm32\policy\overall contains policy files for Unicenter 2.4 and 3.x that monitor the overall status of each HP hardware subsystem.

Each HP ProLiant MIB contains a variable that represents the overall status of the entire MIB. The overall policy files monitor these variables. Instances under the various subsystems are NOT enumerated. For example, these policies monitor the overall drive array status, but the individual logical and physical drives are not monitored.

The status of the HP hardware is still monitored, but the information given in the policy files is not as detailed. For detailed information, the user can view a device through the HP Web-based Management Agents or HP Systems Insight Manager.

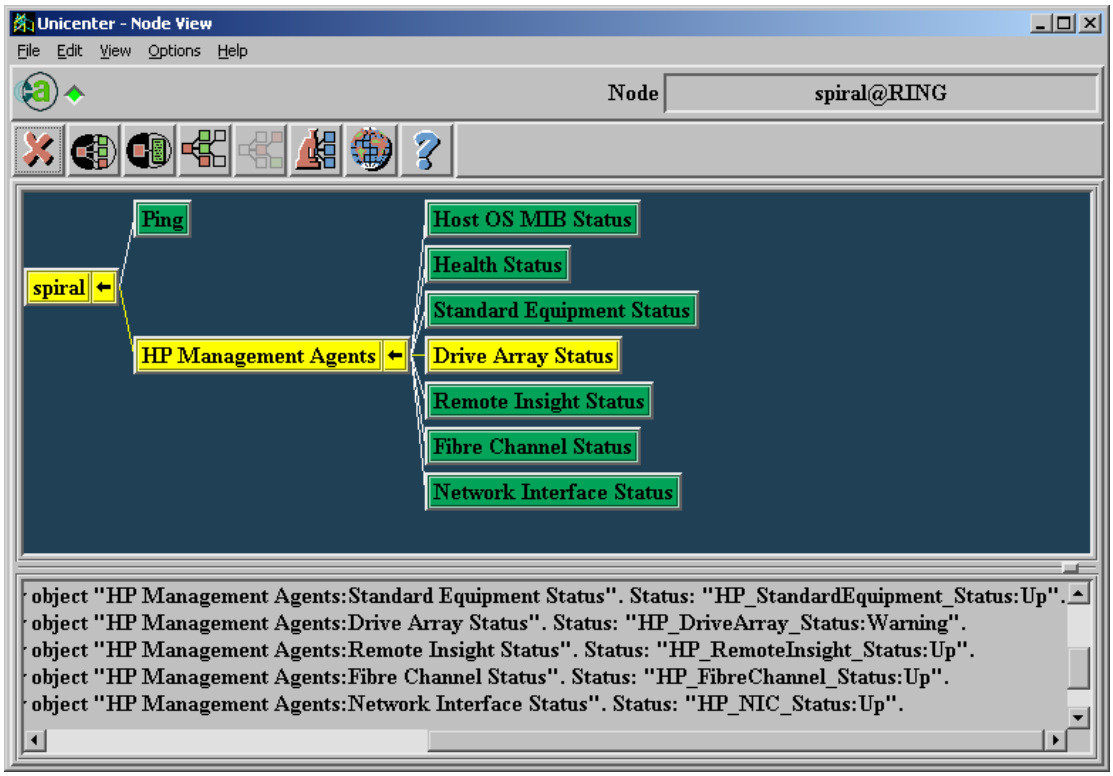
NOTE: The overall status policy for Unicenter 3.x has been updated to minimize the number of items monitored on each system. The monitored items have been updated with new names beginning with the string “HP_”.

The insightmanager.wvc file should be placed in the directory UnicenterDirectory\services\config\aws_wvgate.

The insightmanager.dat and insightmanager.cnf files should be placed in the directory UnicenterDirectory \services\config\aws_nsm\dm.

If these policies are implemented, the Node View will look similar to Figure 18.

Figure 18 Node View displaying HP overall status policy]



DSM event monitoring policy

The Insight Integration includes an additional set of policy files that provide event monitoring for HP Management Agents. This policy is based on the standard policy files installed with the integration. Implementing this policy enables the user to monitor events from the 232 enterprise using the DSM policy instead of Message Record and Action files.

NOTE: The DSM Event policy files are not installed by default, but are provided as a user option. The DSM Event policy files monitor the same hardware systems as the standard policy files, in addition to monitoring SNMP events.

The .cnf file provided in the dsm_events directory parses SNMP alarms from HP devices, in addition to the standard functions of the integration DSM policy.

The trap policy in this file requires version 6.30 or greater of the HP Management Agents. Traps from earlier versions of HP Management Agents are not defined in this file.

No trap variables are processed by this policy. Each trap is processed based only on the trap-specific ID. For example, a drive array trap will contain many variables, but the DSM trap policy will only display a generic “HP Drive Array Physical Drive Status Change” message. Only server alarms are included in the policy definition file.

The directory hpqnsm32\policy\dsm_events contains the policy files for Unicenter 3.x that monitor for SNMP traps.

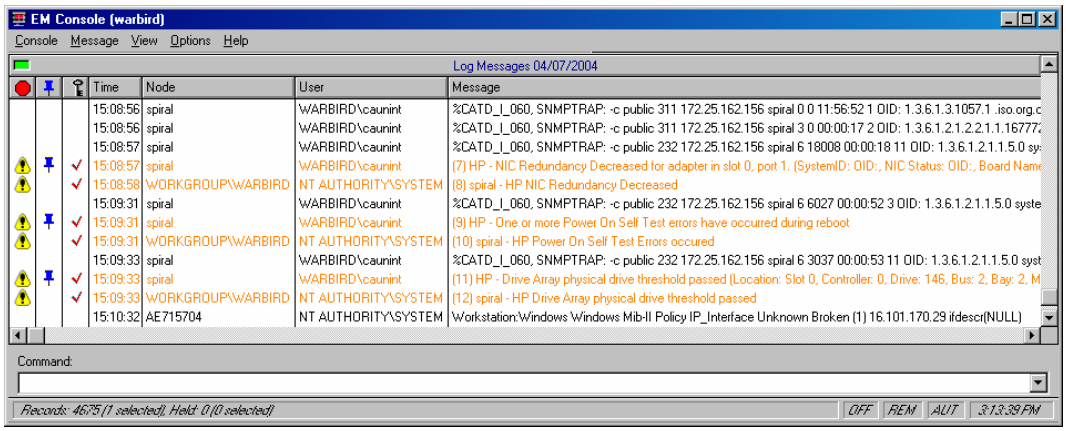
The insightmanager.cnf file should be placed in the directory Unicenter Directory\services\config\aws_nsm\dm.

The hpqemc2.exe file is provided to launch the browser to the Web agents from the Enterprise Management Console using the User action menu option. This file should be placed in the directory Unicenter Directory\bin.

After the file is placed in the \bin directory, edit the CAI_MSG_EXIT environment variable to contain the value hpqemc2.exe.

If these policies are implemented, the Enterprise Management Console will display messages similar to those shown in Figure 19. The messages from the Node WORKGROUP\WARBIRD were generated from the DSM Event Policy. The messages from the Node spiral were generated from the message records and actions.

Figure 19 Enterprise Management Console messages resulting from DMS event monitoring policy implementation



HP Management Agent view

The Insight Integration for CA Unicenter provides an Agent View for the HP Insight Management Agents as shown in Figure 20. This feature is similar to other Agent View options, and provides a quick view of the status of HP servers.

The Agent View now contains buttons to launch to the HP System Management Homepage (Web Agents), the Remote Insight and Integrated Lights-Out management processors, and the Integrated Administrator for HP blade enclosures.

The System Management Homepage launch button is on the summary screen, the Remote Insight/Integrated Lights-Out button is on the Remote Insight information screen, and the Integrated Administrator button is on the Rack Information screen. The Rack Information screen also contains a button to launch to the management processor in an HP Integrity Server.

The following systems are monitored for overall status by the Agent View for the HP Insight Management Agents. More detailed information can be obtained on each system by selecting the appropriate system icon at the top of the Agent View summary window:

- Standard Equipment
- System Information
- Drive Array
- SCSI Drive
- Health Condition
- Threshold Manager
- Host OS MIB
- Network Interface
- Insight Lights Out
- Windows OS MIB
- Linux OS MIB

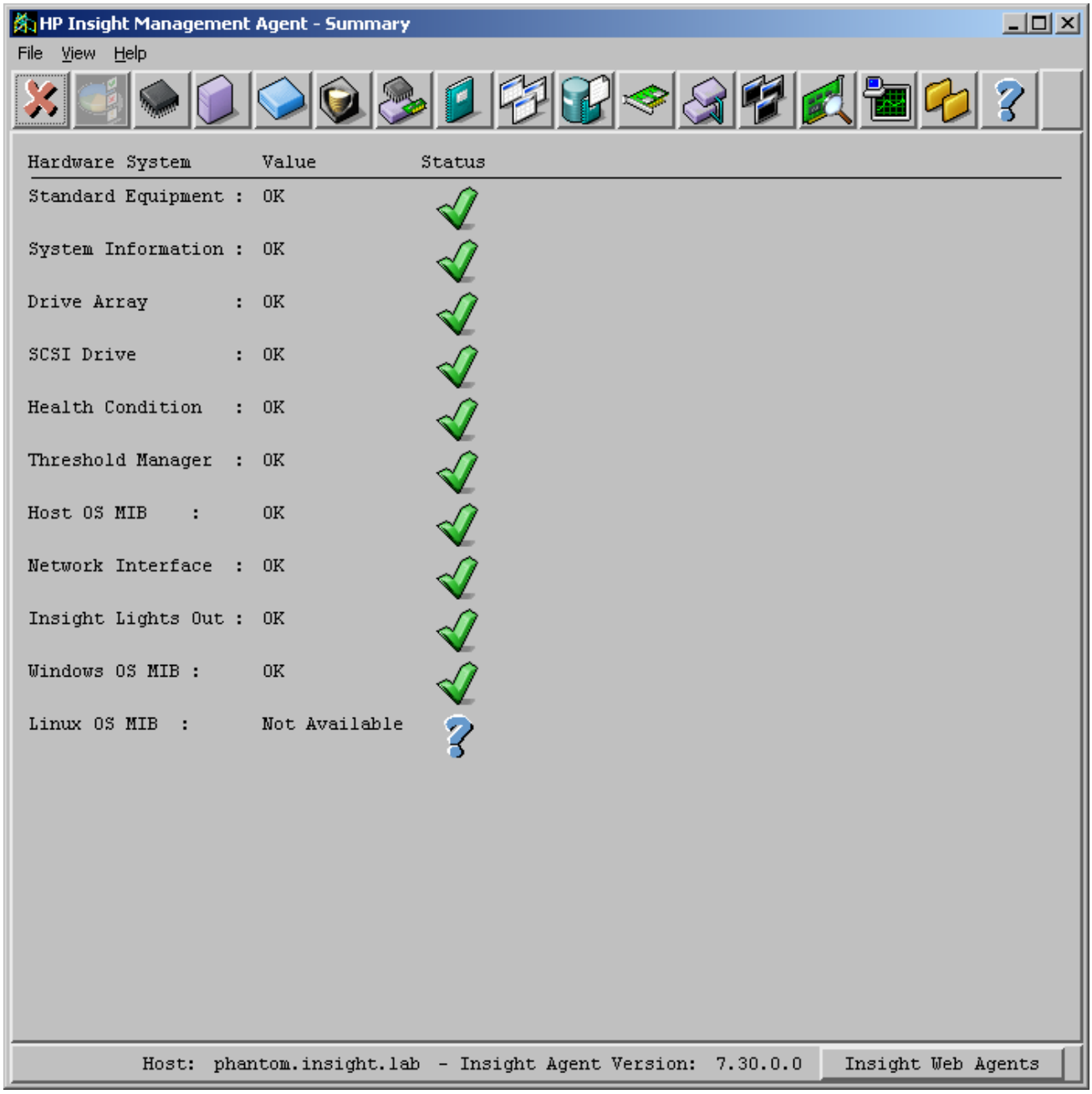
NOTE: Some systems might be listed as NOT AVAILABLE. In many cases, this is correct. For example, a system can contain no SCSI devices, so information on that system is not available.

The Insight Agent View contains the following screens for viewing more detailed information. These screens are accessed from the buttons at the top of the Agent View window.

- Standard Equipment
- System Information
- Drive Array
- SCSI Drives
- Health
- Integrated Management Log
- Thresholds

- Operating System
- Network Interface Card
- Fibre Channel Array
- Rack Enclosure/Management Processor
- Remote Insight/Integrated Lights-Out
- Utilization
- Software Versions

Figure 20 HP Insight Management Agent–Summary view



In addition to the Not Available or Unknown status in Agent View, an error message, such as the one in Figure 21, might also be displayed.

Figure 21 Warning message

Application launches

The Insight Integration for CA Unicenter is built upon the features and functionality of the HP Insight Management Agents, and is designed to operate directly with native Unicenter applications and utilities. To provide further access to detailed HP systems data and additional HP resource management tools from within Unicenter, the Insight Integration includes several application launches:

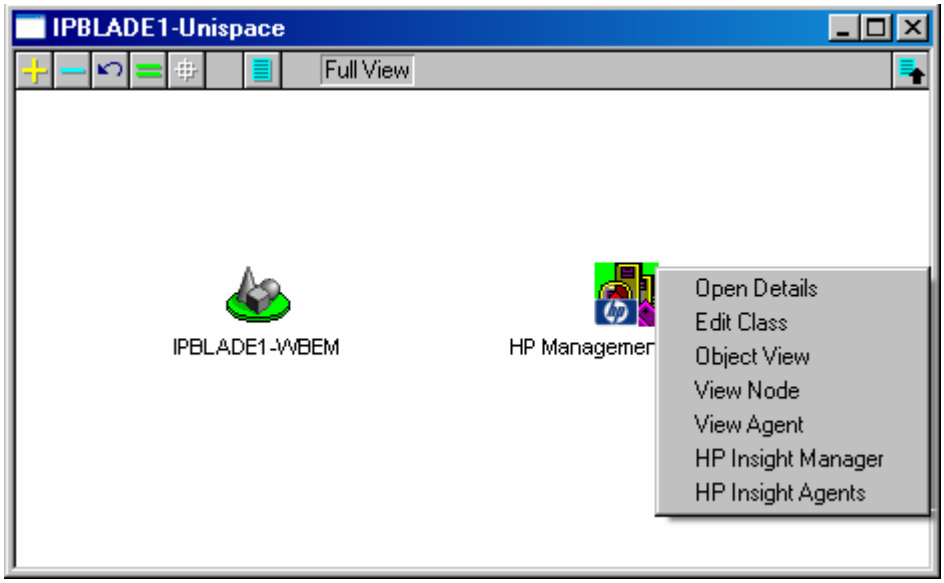
- Browser launch to the HP System Management Homepage (Insight Management Agents)
- Browser launch to HP Systems Insight Manager
- In-context launch to HP Systems Insight Manager

Browser launch to the HP System Management Homepage (Insight agents)

For machines with HP Insight Management Agents installed, the HP Management Agent icon appears under the node container. Right-clicking the mouse displays a selection list, where you can select an option to launch to the HP Insight Agents, as shown in Figure 22, which will display the HP System Management Homepage for the selected node. The HP System Management Homepage is a web-based application that provides an aggregated view of all data collected by HP Insight Management Agents and other plug-ins for an individual HP node. This feature is configured to use the default browser on the system.

NOTE: This option is shown on every discovered HP system, whether or not the system is running HP Web-enabled agents. If HP agents are not installed, using this option results in the browser displaying an error message.

Figure 22 Launch option for HP Insight Agents



HP Systems Insight Manager

HP Systems Insight Manager is a web-based application that provides unified lifecycle management for HP servers, storage, and other HP and third party infrastructure resources. HP Systems Insight Manager can be used to maximize system uptime, reduce total cost of ownership, and provide powerful systems lifecycle monitoring, inventory, and control. HP Systems Insight Manager utilizes the same Insight Management Agents used by the Insight Integration for CA Unicenter to merge HP hardware data with Unicenter status and event processing.

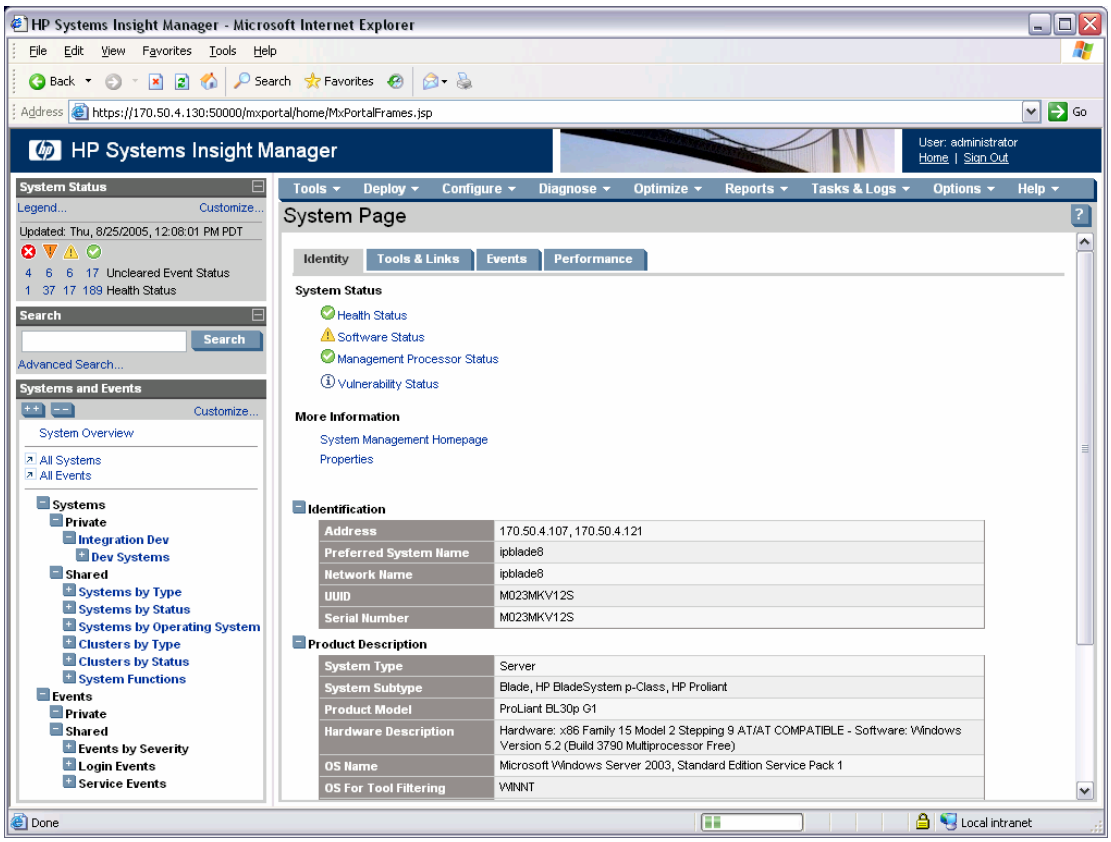
In-context launch to HP Systems Insight Manager

This capability appears on all HP systems managed by the Insight Integration, and launches to a selected node through the HP Systems Insight Manager management server, as shown in Figure 23. This provides the user with links to other resource management features available in HP Systems Insight Manager.

When using this feature, you will first be asked to log into the HP Systems Insight Manager server, then the system information page will be displayed, as shown in Figure 23.

NOTE: This feature requires HP Systems Insight Manager 4.1 or later and Unicenter 2.4 or later.

Figure 23 HP Systems Insight Manger System Page



Unicenter Enterprise Management Integration

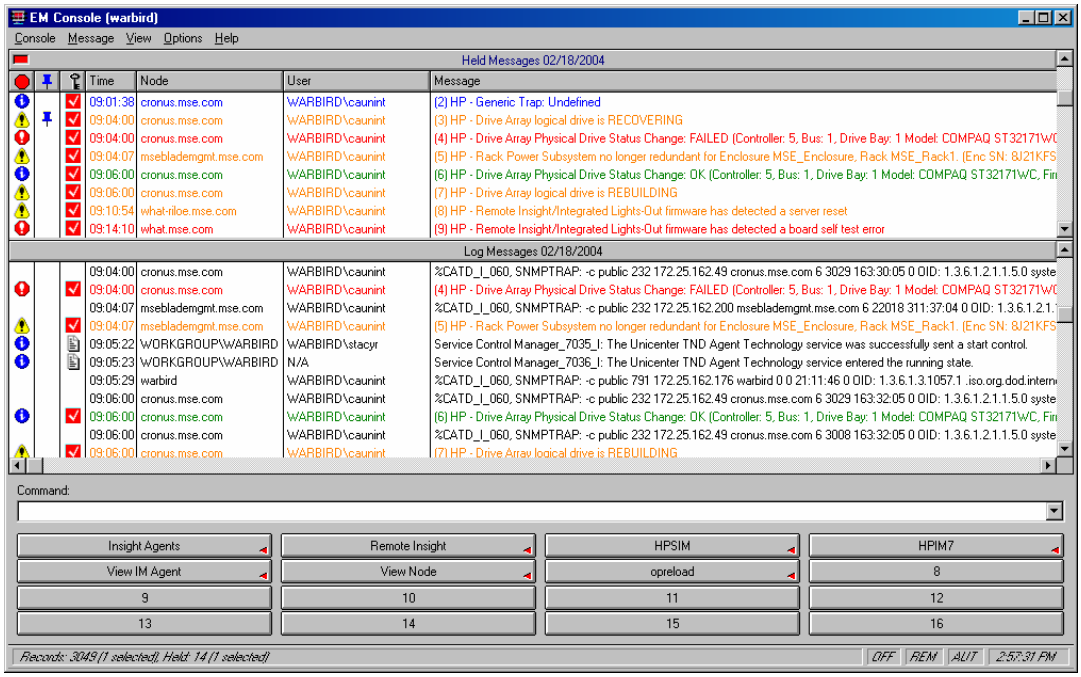
The Insight Integration for CA Unicenter provides integration with the Unicenter Enterprise Management Console. This integration is provided through Message Records that define the HP SNMP traps in Enterprise Management Console.

Enterprise Management Console

The event management components of Unicenter take incoming events from a variety of sources. After the event is received, the event manager processes the data and records it in a daily log that is viewable from the Console Log GUI. The log file name format is yyyymmdd.log, and by default is stored in the directory \Unicenter Directory\logs. After receiving an event, Unicenter can react to the event based on message records and message actions created by the administrator.

The message records provided with the Insight Integration for CA Unicenter enable the Unicenter Enterprise Management Event Console to interpret SNMP traps received from HP systems (Figure 24). These message records can be extended as needed to perform specific actions.

Figure 24 Unicenter Enterprise Management Event Console



Enabling SNMP trap processing

Before you can use the event processing functionality, you must configure Unicenter to process SNMP traps. This is performed by executing the command `catrapd` from the Enterprise Management Event Console command line. This command enables SNMP trap processing for the current session only.

To turn on SNMP trap processing by default:

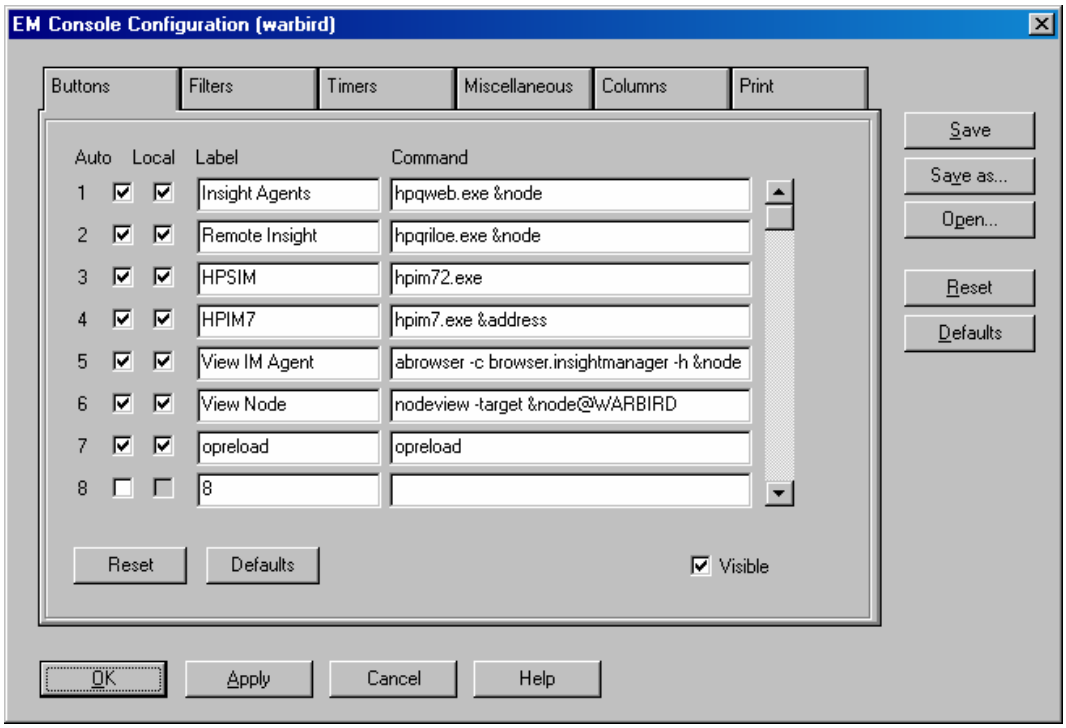
1. Select **Start>Programs>Unicenter>Enterprise Management>Enterprise Managers.**
2. Select **Windows NT>Configuration>Settings.**
3. In the Settings screen, scroll down to the entry for SNMP Trap Server Activated.
4. Double-click in the **Setting** column, and select **Yes** to activate this option.
5. Select **Yes** to confirm the change, then exit the dialog box.

Enterprise Management Console buttons

The Enterprise Management Console buttons can be configured to perform various actions, including launching to the HP System Management Homepage (Insight Agents) or HP Remote Insight tools for the node in the selected alarm.

Figure 25 shows a sample button configuration. This example provides launches to the HP Insight Management Agents, the HP Remote Insight/Integrated Lights-Out, and HP Systems Insight Manager.

Figure 25 Unicenter Enterprise Management Event Console sample button configuration



In addition to configuring the buttons in the Enterprise Management Console, the User action option can be configured to launch the browser to the HP System Management Homepage (Insight Agents) on the node in the selected alarm. The User action option is displayed when you right-click an alarm. The action taken when this is selected is the program defined in the CAI_MSG_EXIT environment variable. This is configured during the installation of the integration module. The recommend value for this environment variable, if it is not already in use, is hpqemc.exe.

Message records and actions

The files listed in Table 4 are used to populate CA Unicenter Event Management databases with predefined HP SNMP trap messages and message actions (Figure 26).

To manually load the HP message records into the local Unicenter event management database, execute the cpqload.bat file. The HP message record files can also be loaded individually by entering the following at the command prompt:

```
Cautil –f <file name>
```

IMPORTANT: Verify that SNMP trap processing is turned on at the management console so you can receive HP alarms. After installing the HP message records, issue the `opreload` command in the Event Console to load the new records into the database.

Figure 26 Unicenter Message Records list displaying HP events

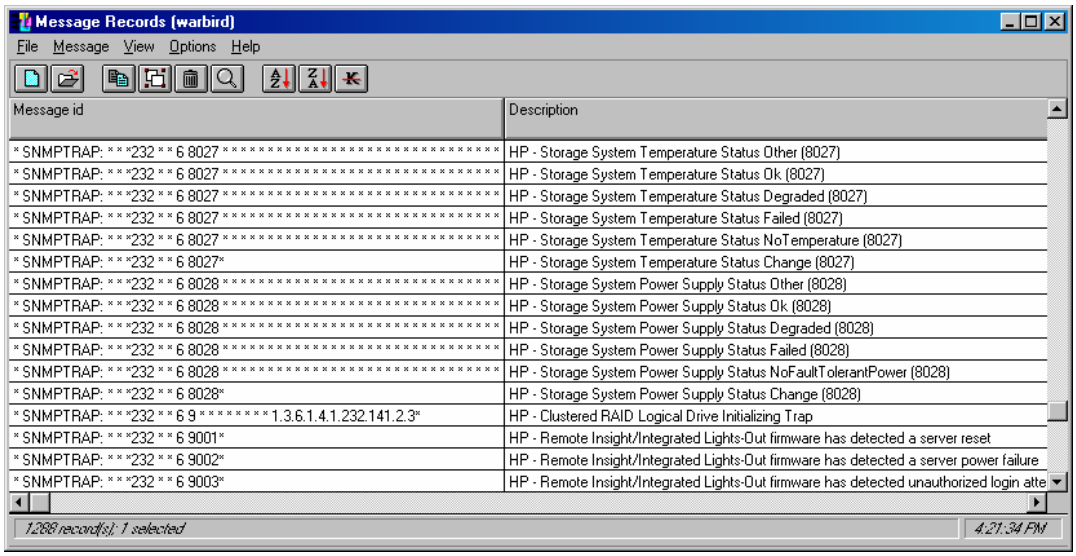


Table 4 Definitions for message records

File name	Trap type	Trap-specific ID
cpq_hsagent	StorageWorks Enterprise Array Manager	OID: 1.3.6.1.4.1.36 Trap IDs: 1 through 22
cpqavab.txt	HP Availability Agents	OID: 1.3.6.1.4.1.5910 Trap ID 1
cpqcluster.txt	HP Cluster Alarms	15001 through 15008
cpqcr.txt	HP Clustered RAID Alarms	OID: 1.3.6.1.4.1.232.141.2.3 Trap IDs: 5 through 9 OID: 1.3.6.1.4.1.232.141.2.5 Trap IDs: 10 through 14
cpqdesktop.txt	HP Desktop Alarms	2001 through 2014
cpqDMI.txt	HP DMI Indications mapped to SNMP traps	150001 through 150006
cpqFCA1.txt	HP Fibre Channel Array Alarms	16001 through 16003
cpqFCA2.txt	HP Fibre Channel Array Alarms	16004 through 16015
cpqFCA3.txt	HP Fibre Channel Array Alarms	16016 through 16021
cpqFCA4.txt	HP Fibre Channel Array Alarms	16022 through 16025
cpqFCA5.txt	HP Fibre Channel Array Alarms	16026 and 16027
cpqFCA6.txt	HP Fibre Channel Array alarms	16028
cpqFCB1.txt	HP Fibre Channel Bridge Alarms	139001 through 139006
cpqHealth1.txt	HP Health Alarms	6001 through 6015
cpqHealth2.txt	HP Health Alarms	6016 through 6028
cpqHealth3.txt	HP Health Alarms	6029 through 6040
cpqHealth4.txt	HP Health Alarms	6041
cpqHealth5.txt	HP Health Alarms	6041 and 6042
cpqHealth6.txt	HP Health Alarms	6043 through 6046
cpqHealth7.txt	HP Health Alarms	6047 through 6050
cpqHealth8.txt	HP Health Alarms	6051
cpqHealth9.txt	HP Health Alarms	6052 through 6058
cpqHealth10.txt	HP Health Alarms	6059 and 6060

Table 4 Definitions for message records

File name	Trap type	Trap-specific ID
cpqhost.txt	HP Host Alarms	11001 through 11011
cpqhost2.txt	HP Host Alarms	11012 and 11013
Cpqhost3.txt	HP Host Alarms	11014
cpqHotPlug.txt	HP Hot Plug PCI Alarms	2008 through 2010
cpqICA1.txt	HP Intelligent Cluster Administrator Alarms	140001 through 140006
cpqIDA1.txt	HP Drive Array Alarms	3001, 3008, and 3009
cpqIDA2.txt	HP Drive Array Alarms	3002 through 3007
cpqIDA3.txt	HP Drive Array Alarms	3010 through 3014
cpqIDA4.txt	HP Drive Array Alarms	3015 through 3019
cpqIDA5.txt	HP Tape Alarms	3020 through 3024
cpqIDA6.txt	HP Drive Array Alarms	3025 through 3030
cpqIDA7.txt	HP Drive Array Alarms	3031 through 3045
cpqIDA8.txt	HP Drive Array Alarms	3046 and 3047
cpqIDE.txt	HP IDE Drive Alarms	14001 through 14003
cpqIDE2.txt	HP IDE Drive Alarms	14004 and 14005
cpqNIC.txt	HP NIC Alarms	18001 through 18004
cpqNIC2.txt	HP NIC Alarms	18005 through 18008
cpqNIC3.txt	HP NIC Alarms	18009 and 18010
cpqrack.txt	HP Rack Information Alarms	22001 through 22036
cpqRecov.txt	HP Recovery Server Alarms	13001 through 13005
cpqrib.txt	HP Remote Insight/Integrated Lights-Out Alarms	9001 through 9010
cpqrib2.txt	HP Remote Insight/Integrated Lights-Out Alarms	9011 through 9013
cpqsanap.txt	HP SAN Management Appliance Alarms	
cpqsanap2.txt	HP SAN Management Appliance Alarms	
cpqSCSI1.txt	HP SCSI Alarms	5001 through 5005
cpqSCSI2.txt	HP SCSI Alarms	5006 and 5007
cpqSCSI3.txt	HP SCSI Alarms	5008 through 5015
cpqSCSI4.txt	HP SCSI Alarms	5016 through 5017
CpqSCSI5.txt	HP SCSI Alarms	5018 through 5020
cpqSCSI6.txt	HP SCSI Alarms	5021
cpqSCSI7.txt	HP SCSI / SAS Alarms	5022 and 5023
cpqStdeq.txt	HP Standard Equipment Alarms	1001 through 1004
cpqSTSYS1.txt	HP Storage System Alarms	8001 through 8007
cpqSTSYS2.txt	HP Storage System Alarms	8008 through 8014
cpqSTSYS3.txt	HP Storage System Alarms	8015 through 8017
cpqSTSYS4.txt	HP Storage System Alarms	8018 and 8019
cpqSTSYS5.txt	HP Storage System Alarms	8020 and 8021
cpqSTSYS6.txt	HP Storage System Alarms	8022 through 8024
cpqSTSYS7.txt	HP Storage System Alarms	8025

Table 4 Definitions for message records

File name	Trap type	Trap-specific ID
cpqSTSYS8.txt	HP Storage System Alarms	8026 through 8028
cpqSTSYS9.txt	HP Storage System Alarms	8029 through 8031
cpqSWCC1.txt	HP StorageWorks Command Console Alarms	OID: 1.3.6.1.4.1.232.132.2.1 OID: 1.3.6.1.4.1.232.132.3.1 OID: 1.3.6.1.4.1.232.132.4.1 Trap IDs: 1 through 3
cpqThrsh.txt	HP Threshold Alarms	10001 through 10006
cpqThrsh2.txt	HP Threshold Alarms	10007 and 10008
cpqUPS.txt	HP UPS Alarms	12001 through 12014
cpqv22sw.txt	HP Fibre Channel Switch Alarms	OID: 1.3.6.1.4.1.1588 Trap IDs: 1 through 6
cpqwinos.txt	HP WINOS MIB Alarms	19001 through 19008
Hpovsam.txt	HP OpenView Storage Area Manager	OID: 1.3.6.1.4.1.11.2.27.3.1.1.1.1 Traps IDs: 1 through 5
svrclu.txt	Server Cluster Alarms	OID: 1.3.6.1.4.1.232.36 Trap IDs: 100 and 101
Gadzoox.txt	Gadzoox Alarms	OID: 1.3.6.1.4.1.1754 Trap IDs: 1 through 5

HP Web Jetadmin in the Unicenter integration

The Insight Integration for CA Unicenter provides an option for installing linkage to an existing implementation of HP Web Jetadmin. This option modifies the HP_Printer class to include new menu definitions for launching to HP Web Jetadmin in-context and for launching directly to the Web interface on a printer.

Figure 27 HP Web Jetadmin menu

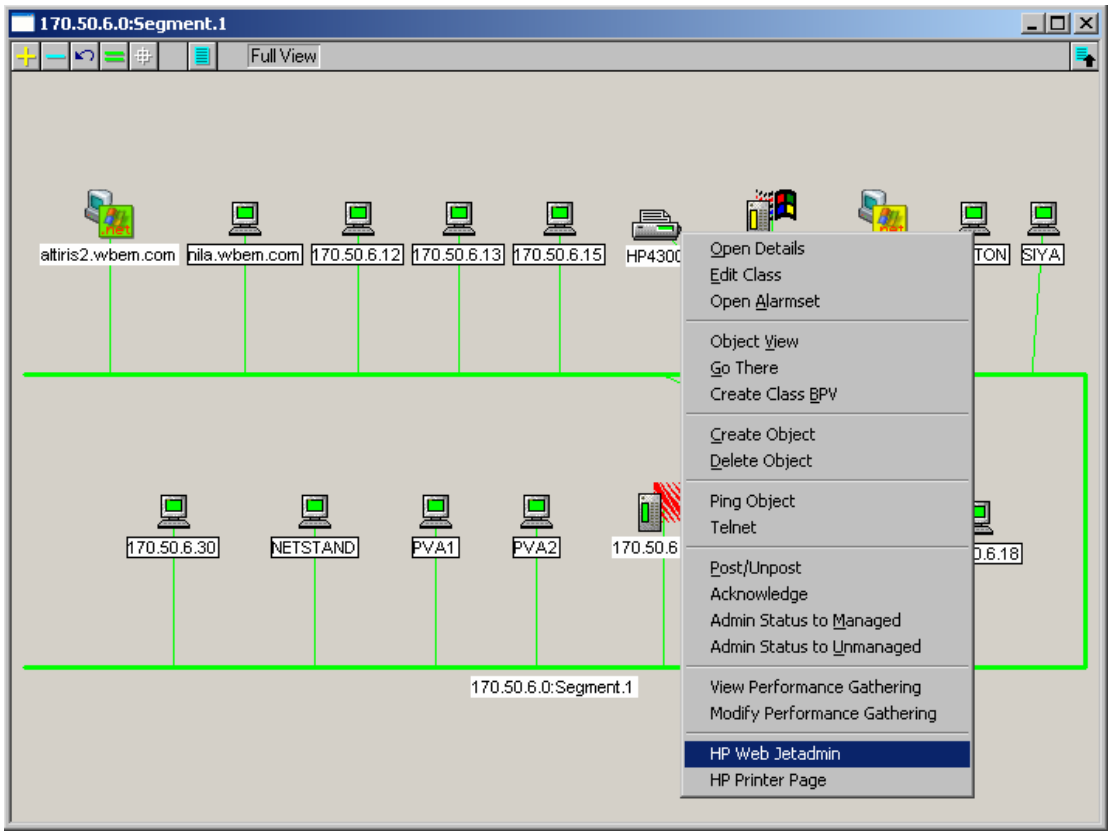
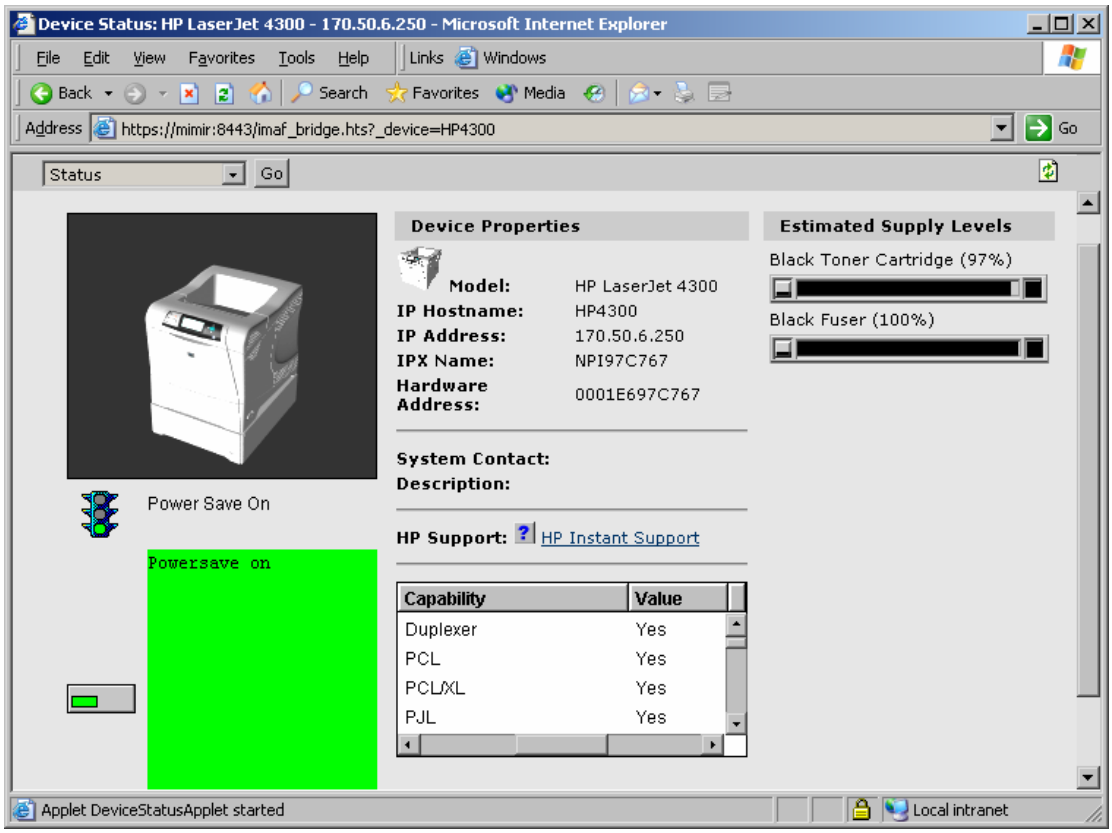


Figure 28 HP Web Jetadmin printer view



Message Records and Actions have also been included for basic printer events. These message records and actions translate printer events in the Unicenter Enterprise Management Console (Figure 29, Figure 30).

Figure 29 HP Printer event message records

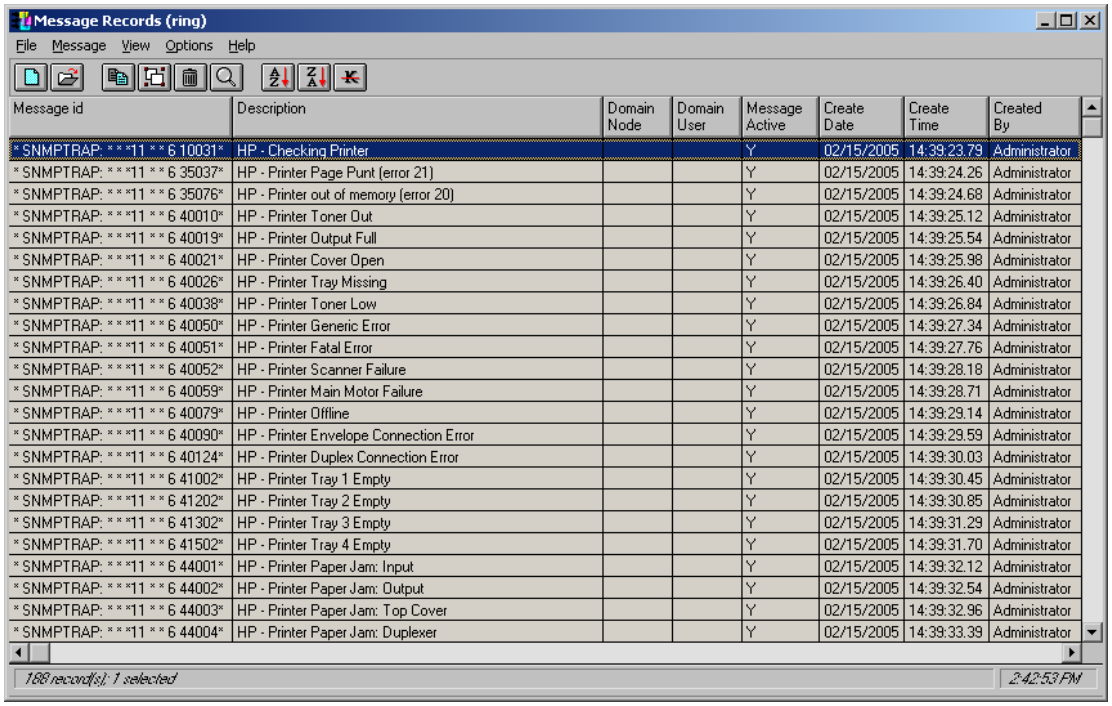
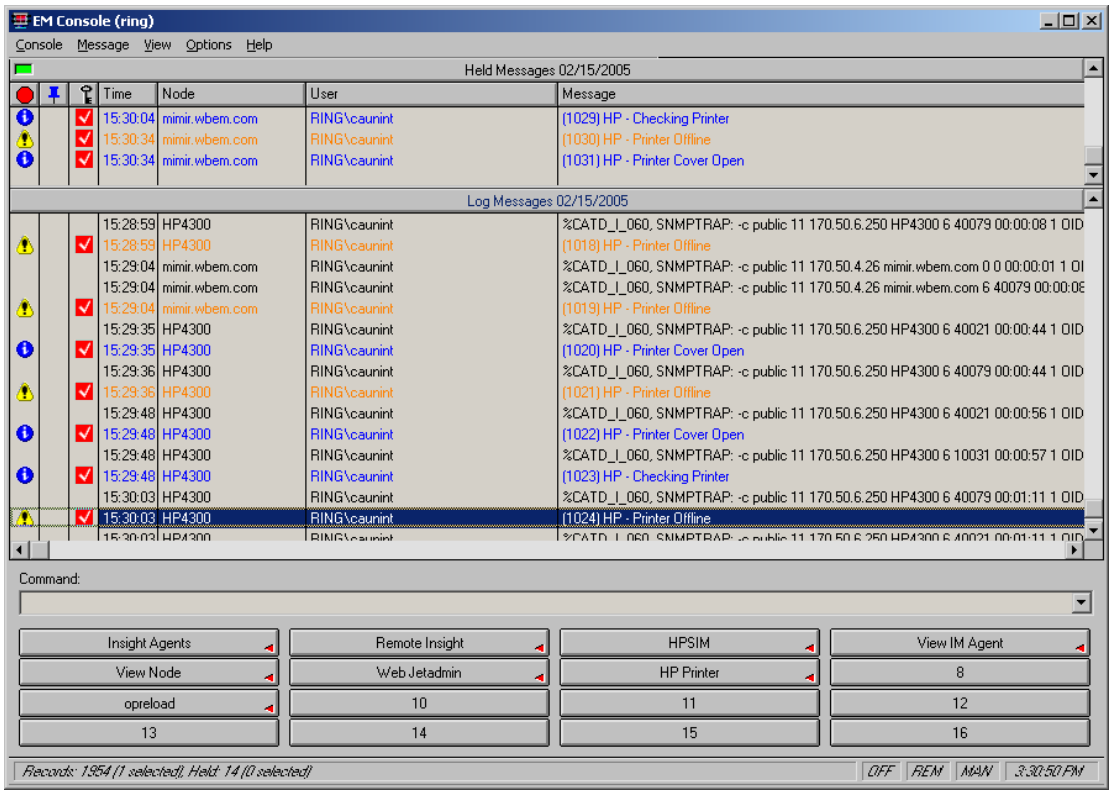


Figure 30 HP printer events



You can also configure one of the buttons in the Enterprise Management Console to launch to an existing implementation of HP Web Jetadmin and display the node in the selected event. Edit one of the button configurations, and enter `hpwja.exe &node` in the command field.

HP Integrity servers in the Unicenter integration

The Insight Integration for CA Unicenter has been extended to perform discovery of HP Integrity Servers during the execution of the integration discovery program. These systems will be identified on the WorldView map with their own HP icon (Figure 31). Currently, automatic discovery of Integrity servers is only supported on systems running Windows Server 2003. Servers running other operating systems can be manually reclassified as Integrity Servers.

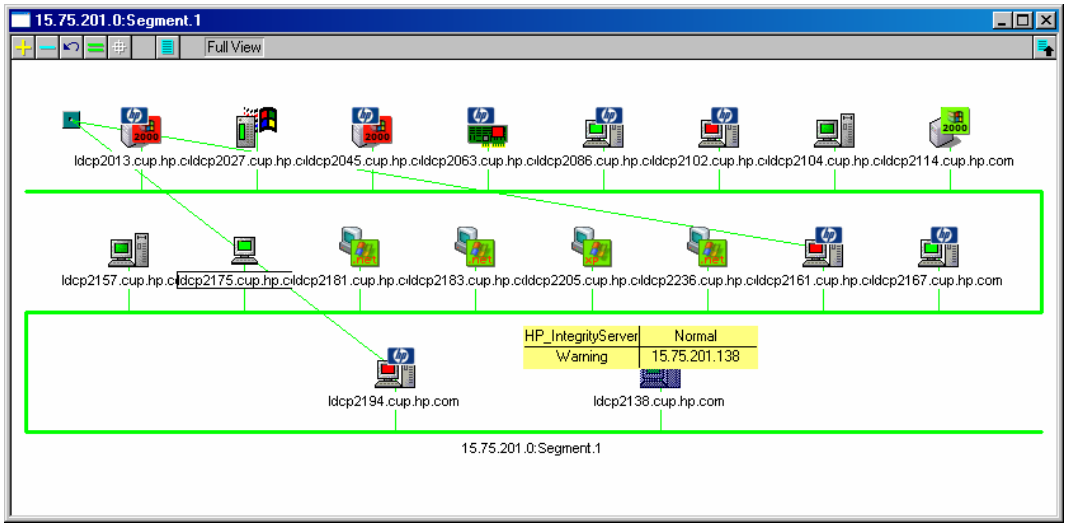
The HP Management Agents will be discovered and monitored running on an Integrity Server and a new entry will be created in the Agent View (the management processor section) to provide information about the management processor in the Integrity server.

Message records and actions are also provided for HP Integrity servers. These message records are based on the information provided in the hpipftrap.mib and are located in the \hpqnsm32\cpqem\ipf directory. These message records are not installed by default.

To load these message records, change to the IPF directory and run the messagerecords.bat script.

To remove these message records, change to the IPF directory and run the messagerecords-rm.bat script.

Figure 31 WorldView map showing HP icons



Since the Insight Integration for Unicenter has been built around HP ProLiant systems, there will be parts of the integration that do not function the same way when directed at an HP Integrity Server.

For example, the SCSI and Remote Insight sections of the Agent View do not apply to an HP Integrity Server. These sections will display as Not Available (Figure 32). SCSI information and other system configuration and status details can be obtained through the HP System Management Homepage (Insight Agents). Although the Remote Insight section does not apply, management processor information can be displayed (Figure 33).

Figure 32 Agent view summary of an HP Integrity Server

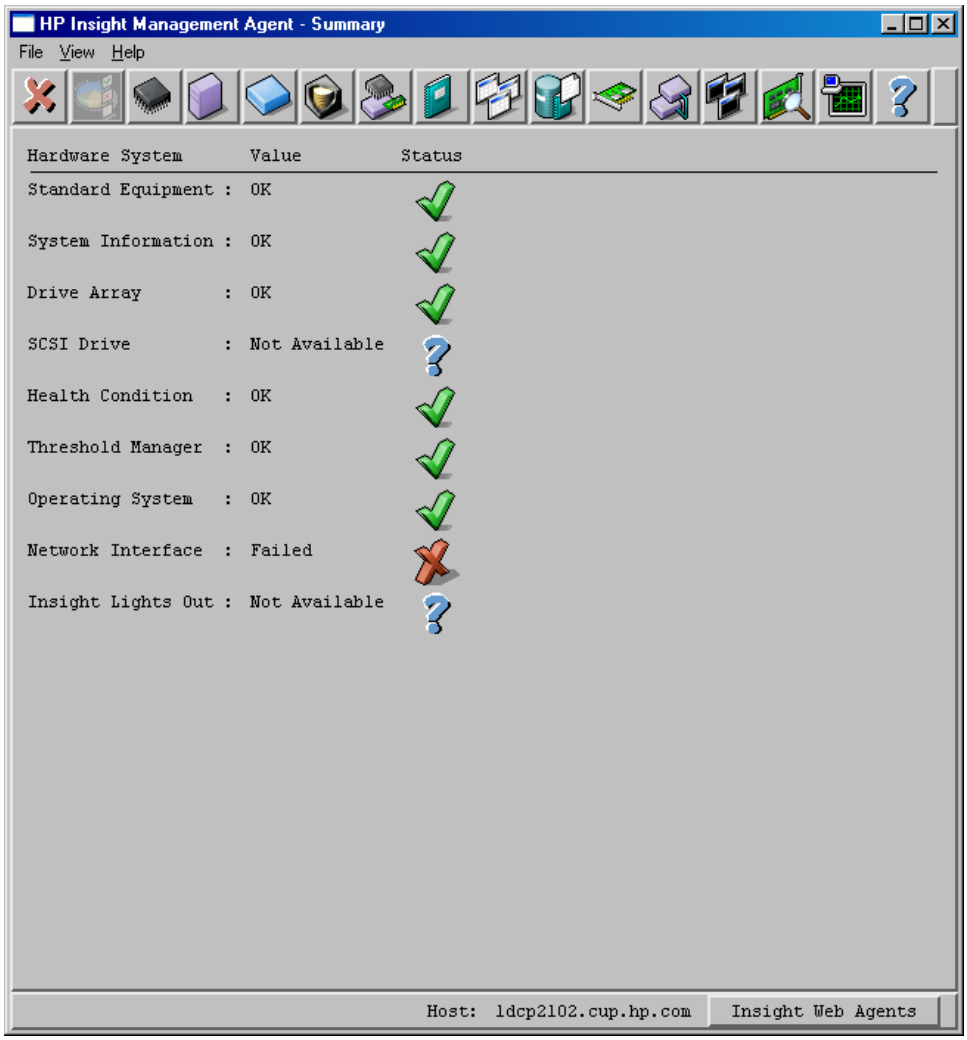
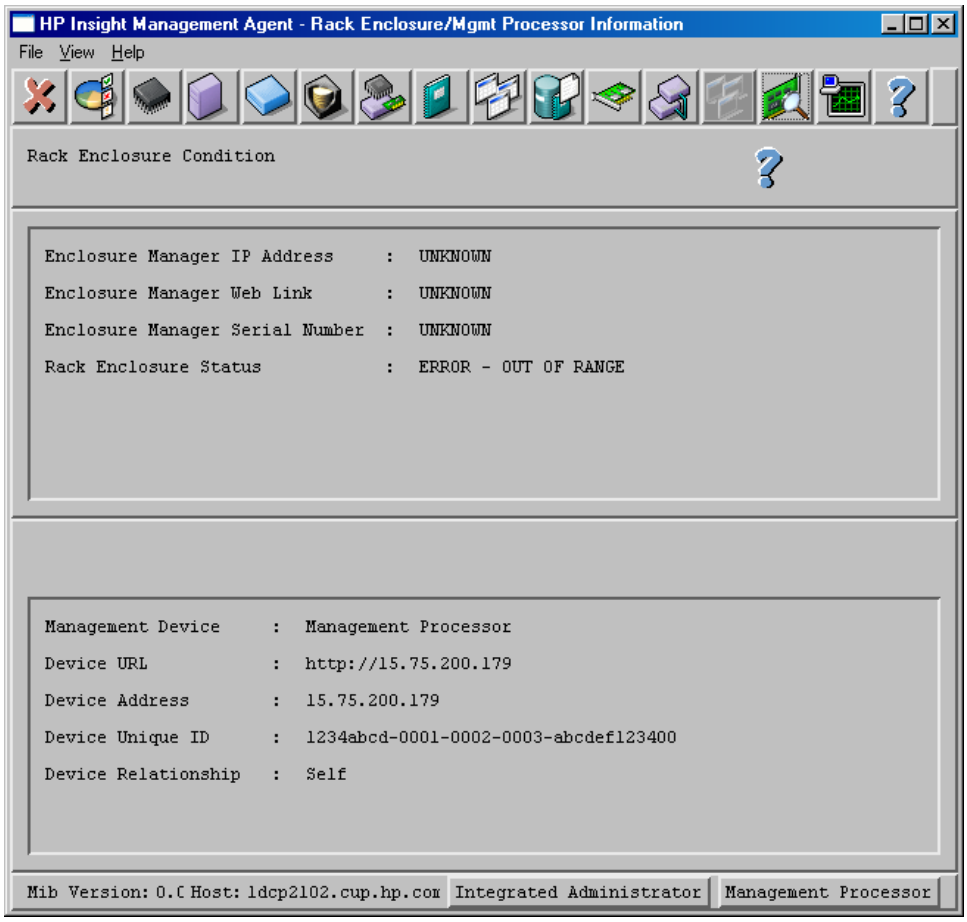


Figure 33 Management processor information from an HP Integrity Server



HP Tru64 UNIX in the Unicenter integration

Since the Insight Integration for Unicenter has been built around HP ProLiant systems, there will be parts of the integration that do not function the same way when directed at HP Tru64 UNIX systems.

Most of the management for Tru64 UNIX systems should occur through the Web-enabled HP Insight Management Agents. Figure 34 and Figure 35 show examples of a Tru64 UNIX system viewed through the Insight Integration for CA Unicenter. This is what would normally be seen when using the Agent View and Node View on a Tru64 UNIX system.

Figure 34 HP Agent View in Unicenter retrieving information from a Tru64 UNIX system

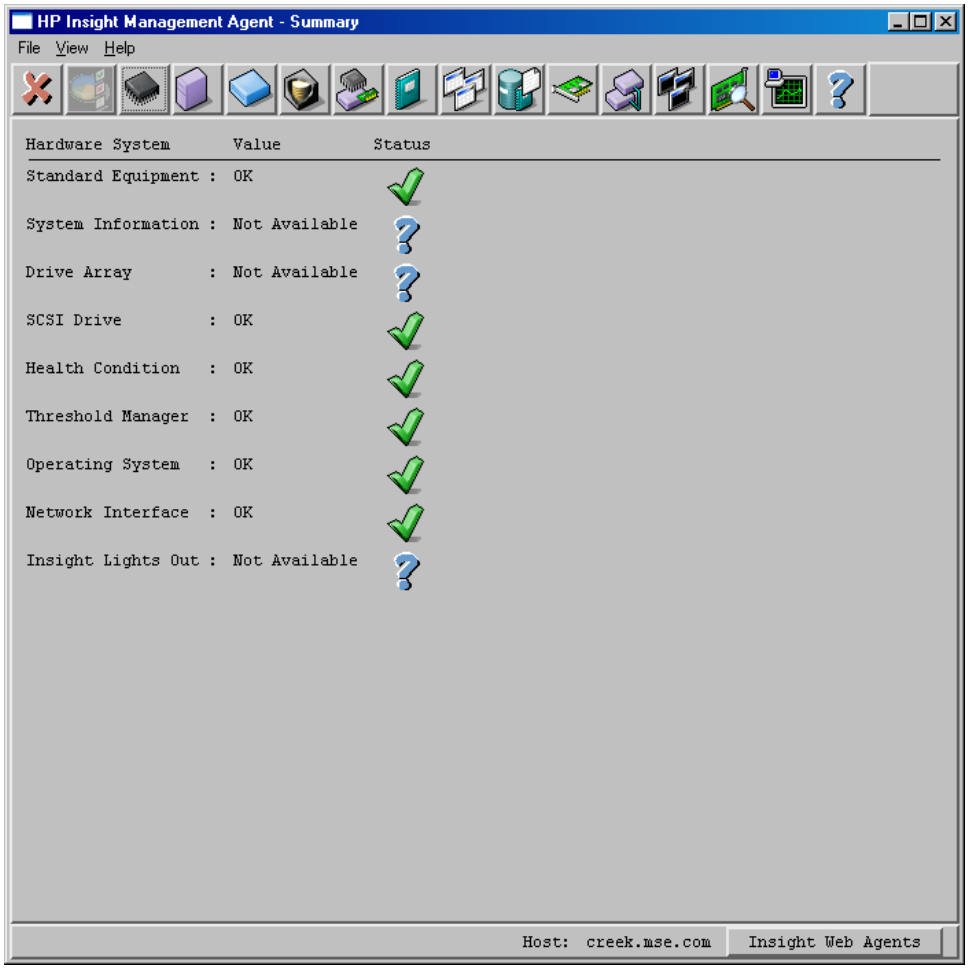
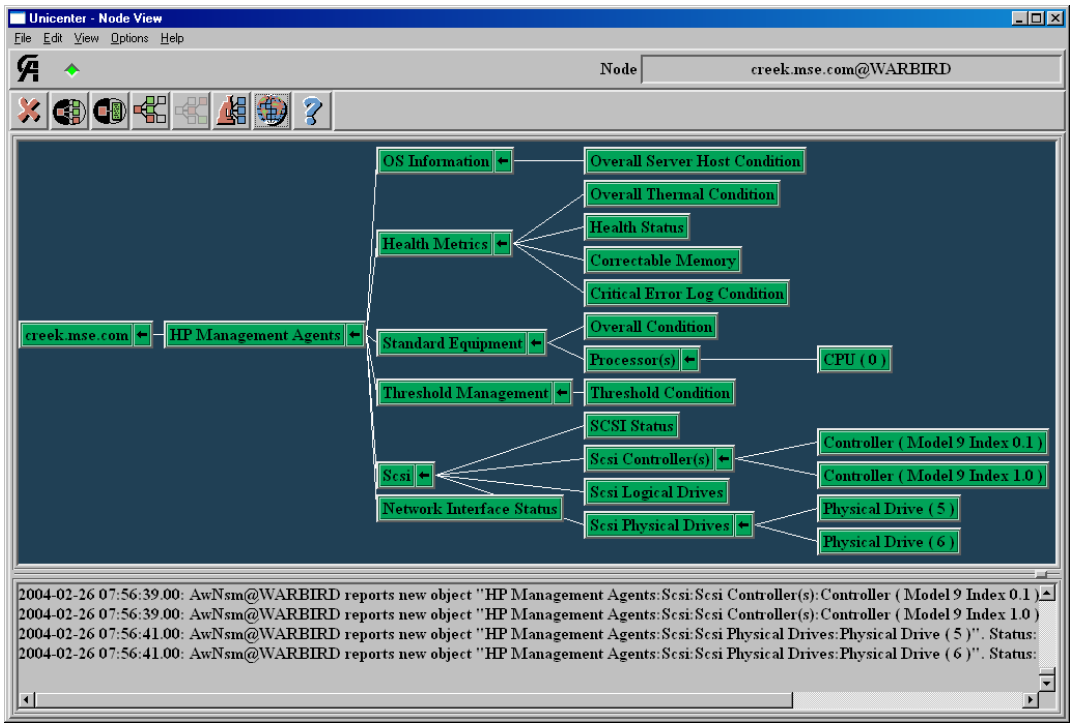


Figure 35 Unicenter node view retrieving information from a Tru64 UNIX system



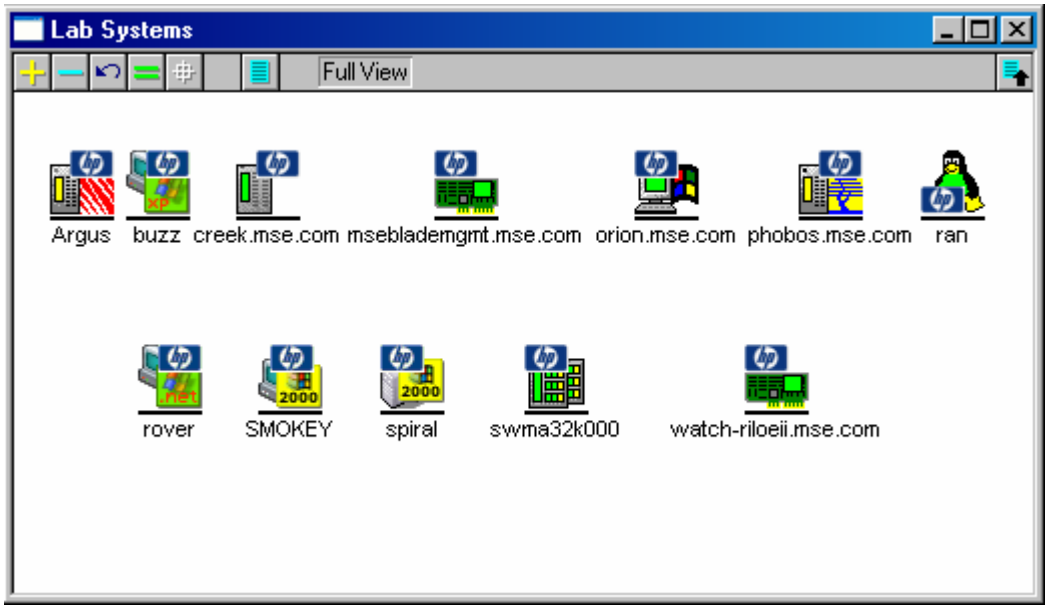
HP OpenVMS in the Unicenter integration

Since the Insight Integration for CA Unicenter has been built around HP ProLiant systems, there will be parts of the integration that do not function the same way when directed at HP OpenVMS systems. Similar to the way in which HP Tru64 Unix systems are managed, the majority of OpenVMS systems management should occur through the Web-enabled HP Insight Management Agents.

Extended discovery of HP systems

Through the Insight Integration for CA Unicenter, HP systems have traditionally been identified on the Unicenter WorldView Map by the HP Management Agent icon being displayed in Unispace. In addition to the discovery of the HP Management Agents, HP systems can also be discovered and classified on the subnet map. With this feature, you will be able to identify HP systems by device class and operating system type, without having to drill down to the agents running on that system. An example is shown in Figure 36.

Figure 36 HP systems identified with HP icons



Requirements for extended discovery:

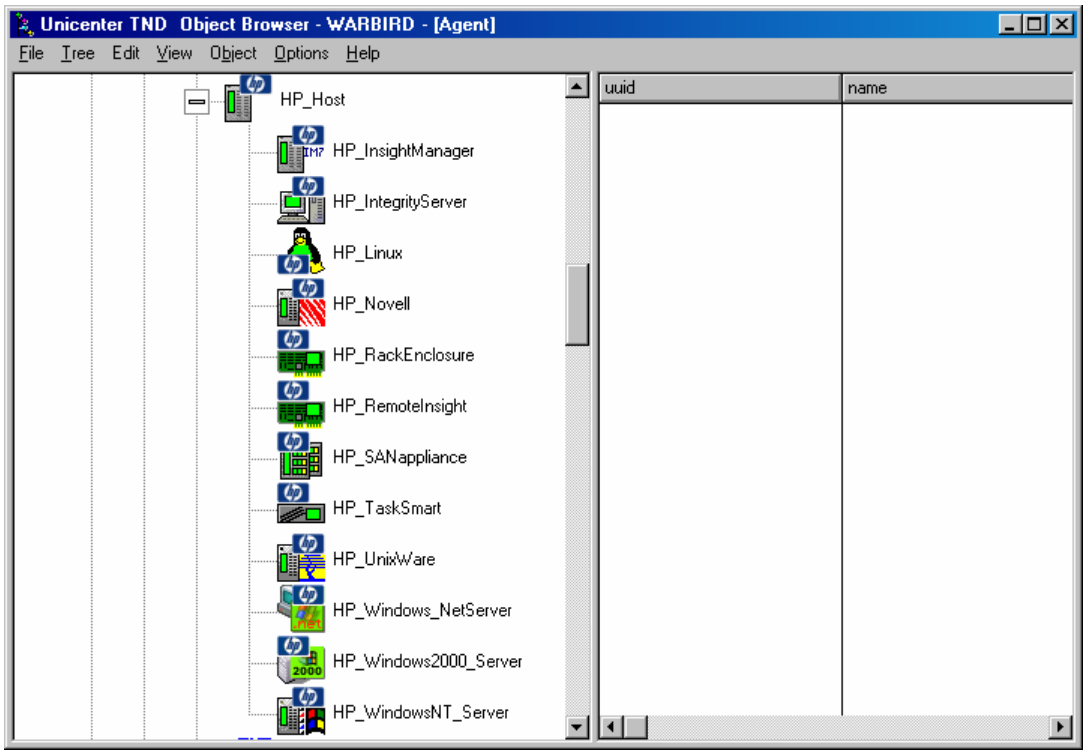
- Unicenter 2.4 or later
- SNMP running on the managed devices
- IP running on the managed devices
- HP Insight Management Agents running on the managed devices (SNMP only)
- HP classes defined in the CORE

HP class creation

To enable the new HP classes, the class definitions must first be loaded into the CORE. The new HP classes are loaded automatically by the installation program if the HP Classes option is selected. For manual installation of the HP classes, the `Hpqclass.exe` command can be executed in the hpqnsm32\cpqwv\classes directory. This command must be executed from the directory where the class definition files reside.

The HP Host root class is created under the TNGRoot – ManagedObject – Host class and the HP Workstation root class is created under the TNGRoot – ManagedObject – Workstation class. All other HP classes are defined as children of these HP classes. The new HP_Host classes are shown in Figure 37.

Figure 37 HP classes



After the Unicenter discovery has been run, the utility hpqdscvr can be executed. This utility checks the CORE for objects in the supported classes and then checks each object in the supported classes to see if it is an HP device. If the device is identified as HP, it is reclassified to the appropriate HP class.

The discovery executable takes the following parameters:

- Repository Name—The name of the Unicenter Repository to connect
- User Name—The user name used to connect to the repository
- Password—The password for the specified user

NOTE: Enter **B** if there is no password for the specified user.

- Community String—The SNMP community string to use during the discovery process
- S or R—Enter **S** to reclassify all Systems, or **R** to only reclassify Remote Insight objects

IMPORTANT: These values are case-sensitive.

Devices that should be placed in the HP_InsightManager and HP_TaskSmart classes are not reclassified automatically and must be manually reclassified by the user using the Reclassify Menu Option or the `reclass.exe` command.

If the user selects the R option (reclassify Remote Insight objects only), the integration discovery program will only reclassify those objects it identifies as Remote Insight or iLO objects. Other objects will remain in the default Unicenter classes.

The installation program edits the gwclass.dat file to include the value HP_Host|HP_Workstation| at the end. This ensures that the DSM will monitor the new HP classes for status. The gwclass.dat file is located in the \Unicenter Directory\services\config\aws_wvgate\ directory.

To discover HP systems, execute the following command:

```
hpqdscvr.exe Repository UserName Password Community S
```

While the HP discovery is running, messages similar to the following will be displayed in the command prompt.

```
There were 3 WindowsNT_Server objects found:
Device name to use for SNMP query: THANATOS
```

```
Device address to use for SNMP query: 172.25.162.41
Reclassify THANATOS as an HP NT Server

Device name to use for SNMP query: RICHMOND
Device address to use for SNMP query: 172.25.162.13
Device not reclassified.

Device name to use for SNMP query: 7f.cpqcorp.net
Device address to use for SNMP query: 172.25.162.90
Could not complete the SNMP request
```

To keep track of what systems were classified as HP devices, the discovery program creates the file hpqdscvr.log in the Unicenter directory. The output from the discovery program is logged to this file automatically. This file will be overwritten each time the integration discovery program is executed.

The time required for hpqdscvr to complete will vary depending on the number of objects in the CORE.

Discovery messages

During the discovery process the following messages might be displayed.

- Device not reclassified–This message is most commonly caused by the following conditions:
  - System is not an HP system
  - System is not running SNMP
  - System is not running the HP Insight Management Agents
- Could not complete the SNMP request–This message is most commonly caused by the following conditions:
  - System is not running SNMP
  - SNMP request timed out
  - SNMP community string does not match the community string entered for discovery

The supported classes for discovery and the reclassification of devices are listed in Table 5.

Table 5 Supported classes for discovery

Unicenter class	HP class
DECSystem	HP_DECSystem
Novell	HP_Novell
OS2	HP_OS2
SCOUnix	HP_SCOUnix
UnixWare	HP_UnixWare
Linux	HP_Linux
Windows95	HP_Windows95
Windows9x	HP_Windows9x
WindowsNT	HP_WindowsNT
WindowsNT_Server	HP_WindowsNT_Server
Windows2000	HP_Windows2000
WindowsXP	HP_WindowsXP
Windows2000_Server	HP_Windows2000_Server
Windows_NetServer	HP_Windows_NetServer

Manual reclassification

The HP reclassification can also be performed manually on a few devices without running the HP discovery program. The command `reclass.exe` can be executed from the command prompt to change a discovered object to an HP object.

```
reclass /C=classname /O=objectname /T=toclass
```

For full details on the `reclass` command, execute the following command:

```
reclass /?
```

For example, to reclassify an object from WindowsNT_Server to HP_WindowsNT_Server, execute the following command:

```
reclass /C=WindowsNT_Server /O=SERVERNAME /T=HP_WindowsNT_Server
```

Reverting to previous classifications

If you want to return to the default class categories provided in Unicenter, you can run the HPQUNCLASS program. This program takes the devices in all the HP classes and reclassifies them to the standard Unicenter classes.

The program to return the HP devices to the standard Unicenter classes takes the following parameters:

- Repository Name—The name of the Unicenter Repository to connect
- User Name—The user name used to connect to the repository
- Password—The password for the specified user

NOTE: Enter `B` if there is no password for the specified user.

To remove the classification of HP systems and return the devices to their original Unicenter classes, execute the command `hpqunclass.exe Repository UserName Password`. The reclassification proceeds according to the rules listed in Table 6.

Table 6 Reverting to previous classifications

HP class	Unicenter class
HP_DECSystem	DECSystem
HP_Novell	Novell
HP_OS2	OS2
HP_SCOUnix	SCOUnix
HP_UnixWare	UnixWare
HP_Linux	Linux
HP_Windows95	Windows95
HP_Windows9x	Windows9x
HP_WindowsNT	WindowsNT
HP_WindowsNT_Server	WindowsNT_Server
HP_Windows2000	Windows2000
HP_WindowsXP	WindowsXP
HP_Windows2000_Server	Windows2000_Server
HP_Windows_NetServer	Windows_NetServer
HP_SANappliance	Windows2000_Server
HP_RemoteInsight	Host
HP_RackEnclosure	Linux
HP_IntegrityServer	Windows_NetServer

In addition to this program, the user can also use the `reclass.exe` command line executable described in the previous section to return a device to a standard Unicenter class.

Additional HP classes

In addition to the classes that are automatically discovered, two other HP classes are provided. These classes are installed with the integration, but automatic discovery is not available for the device types.

The following additional HP classes are available:

- HP_InsightManager
- HP_TaskSmart

These classes add support for HP Insight Manager 7, HP Systems Insight Manager and HP TaskSmart Web acceleration systems. The support provided in these additional classes includes customized menu options for each device type to provide easy access to device-specific functions.

Devices can be reclassified into these HP classes using the Unicenter `reclass` command.

To return to the previous classifications for devices changed to these new classes, you must manually reclassify each device back to the original class. Reverting to the original class can be done using the `reclass.exe` command, as described in the previous section, or using the Reclassify Object option from the pop-up menu. The Reclassify Object menu item has been added to all the HP custom menus to aid in the reclassification of objects when necessary.

HP_InsightManager

This class provides easy identification of your HP Insight Manager 7 or HP Systems Insight Manager host servers. Menu entries are provided for launching to the management application and for launching to the device in-context.

- HP Insight Agents—Launches to the HP System Management Homepage running on the server
- HP Insight Manager—Launches HP Insight Manager in context so when the first screen is displayed it is displaying the desired node
- HP Insight Manager Home—Launches to the management application at **http://insightmanagerserver:280./**

HP_TaskSmart

This class provides the user the ability to classify HP Internet caching appliances and group them accordingly. The pop-up menu for this class provides the following options:

- HP Insight Agents—Launches the Web browser to the HP System Management Homepage (Insight Agents)
- HP TaskSmart—Launches the Web browser to the HP TaskSmart configuration page
- HP Insight Manager—Launches HP Insight Manager in-context, so when the first screen is displayed it is displaying the desired node

HP classes defined

The new HP classes, shown in Table 5, are defined by TRIX scripts located in the \hpqnsm32\cpqwv\classes directory of the integration module. These scripts are imported into the Unicenter CORE using the hpqclass program.

These new classes have their own icon definitions to customize the view on the 2D WorldView map, and their own menu definitions that provide access to various HP tools.

Table 7 HP class definition files

File name	Class name	Description
HP_Host.tng	HP_Host	Defines the HP_Host root class in the location TNGRoot – ManagedObject – Host. This script also defines the following pop-up menus used in the HP classes: HPServerMenu and HPHostMenu.
HP_Workstation.tng	HP_Workstation	Defines the HP_Workstation root class in the location TNGRoot – ManagedObject – Workstation. This script also defines the HPClientMenu.

Table 7 HP class definition files

File name	Class name	Description
HP_DECSystem.tng	HP_DECSystem	Defines the HP_DECSystem class of objects. This is based on the DECSystem class and is created under HP_Workstation.
HP_Windows95.tng	HP_Windows95	Defines the HP_Windows95 class of objects. This is based on the Windows95 class and is created under HP_Workstation.
HP_Windows9x.tng	HP_Windows9x	Defines the HP_Windows9x class of objects. This is based on the Windows9x class and is created under HP_Workstation.
HP_WindowsNT.tng	HP_WindowsNT	Defines the HP_WindowsNT class of objects. This is based on the WindowsNT class and is created under HP_Workstation.
HP_WindowsNT_Server.tng	HP_WindowsNT_Server	Defines the HP_WindowsNT_Server class of objects. This is based on the WindowsNT_Server class and is created under HP_Host.
HP_Windows2000.tng	HP_Windows2000	Defines the HP_Windows2000 class of objects. This is based on the Windows2000 class and is created under HP_Workstation.
HP_Windows2000_Server.tng	HP_Windows2000_Server	Defines the HP_Windows2000_Server class of objects. This is based on the Windows2000_Server class and is created under HP_Host.
HP_WindowsXP.tng	HP_WindowsXP	Defines the HP_WindowsXP class of objects. This is based on the WindowsXP class and is created under HP_Workstation
HP_Windows_NetServer.tng	HP_Windows_NetServer	Defines the HP_Windows_NetServer class of objects. This is based on the Windows_NetServer class and is created under HP_Host.
HP_Novell.tng	HP_Novell	Defines the HP_Novell class of objects. This is based on the Novell class and is created under HP_Host.
HP_SCOUnix.tng	HP_SCOUnix	Defines the HP_SCOUnix class of objects. This is based on the SCOUnix class and is created under HP_Workstation.
HP_UnixWare.tng	HP_UnixWare	Defines the HP_UnixWare class of objects. This is based on the UnixWare class and is created under HP_Host.
HP_Linux.tng	HP_Linux	Defines the HP_Linux class of objects. This is based on the Linux class and is created under HP_Host.
HP_OS2.tng	HP_OS2	Defines the HP_OS2 class of objects. This is based on the OS2 class and is created under HP_Workstation.

Table 7 HP class definition files

File name	Class name	Description
HP_RemoteInsight.tng	HP_RemoteInsight	Defines the HP_RemoteInsight class of objects under HP_Host. This script also defines the pop-up menu HP_RIBMenu.
HP_RackEnclosure.tng	HP_RackEnclosure	Defines the HP_RackEnclosure class of objects under HP_Host. This script also defines the pop-up menu HP_RackMenu.
HP_IntegrityServer.TNG	HP_IntegrityServer	Defines the HP_IntegrityServer class of objects under HP_Host.
HP_TaskSmart.tng	HP_TaskSmart	Defines the HP_TaskSmart class of objects under HP_Host. This script also defines the pop-up menu HP_TSMenu.
HP_SANappliance.tng	HP_SANappliance	Defines the HP_SANappliance class of objects under HP_Host. This script also defines the pop-up menu HP_SWKSMenu.
HP_InsightManager.tng	HP_InsightManager	Defines the HP_InsightManager class of objects under HP_Host. This is based on the Windows NT Server object and also defines the pop-up menu HP_CIMXEMenu.

Generating event messages from HP Systems Insight Manager

In addition to the HP message record and DSM policy capabilities described in the previous sections, integrating HP hardware management events into the Unicenter Event Console can also be achieved by forwarding events directly from HP Systems Insight Manager (HP SIM). This solution may be used as a lighter integration alternative to message records and DSM policy event management.

To implement this capability follow these procedures:

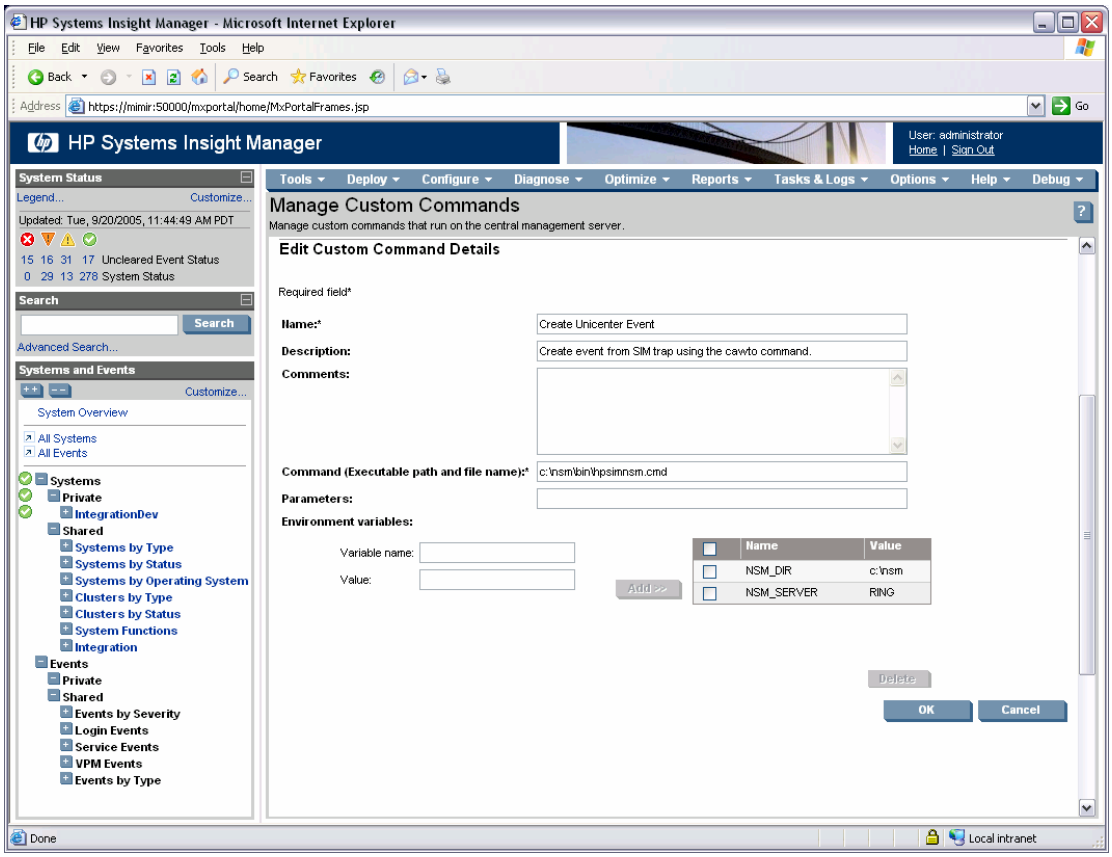
NOTE: The completion of these procedures will enable the display of HP events in the Unicenter Event Console as they appear in HP Systems Insight Manager. Some of the additional event translation and severity details provided with HP message records and DSM policies for Unicenter may not be displayed (Figures 40-41).

1. Copy the hpsimnsm.exe and hpsimnsm.cmd files from the \hpsim directory to the Unicenter\bin directory, for example C:\NSM\BIN on the HPSIM server. The Unicenter NSM Components – Enterprise Management - Event Management - Event Management Base component should be installed on the HPSIM server.
2. Within the HP SIM application, create a custom command for launching the hpsimnsm.cmd script. This script launches the file hpsimnsm.exe, which takes the environment variables set by Systems Insight Manager for a trap and uses those variables to write a message to the Unicenter Enterprise Management Console. The message is created using the `cawto` command. See the HP SIM user documentation for details on creating a customer command.
   - The command to run is Unicenter BIN Directory\hpsimnsm.cmd.
   - The environment variable NSM_DIR should be set to the NSM root directory (C:\NSM).
   - The environment variable NSM_SERVER should be set to the name of the server to send the messages.
   - The hpsimnsm.cmd script will contain something similar to the following:

```
@echo off
set PATH=%PATH%;c:\nsm\bin;c:\ca_appsw;
c:\nsm\bin\hpsimnsm.exe /f
```

The program hpsimnsm.exe can use the /f (formatted output) or /n (no output formatting) options. The hpsimnsm program is only available for HP SIM running on Microsoft Windows.

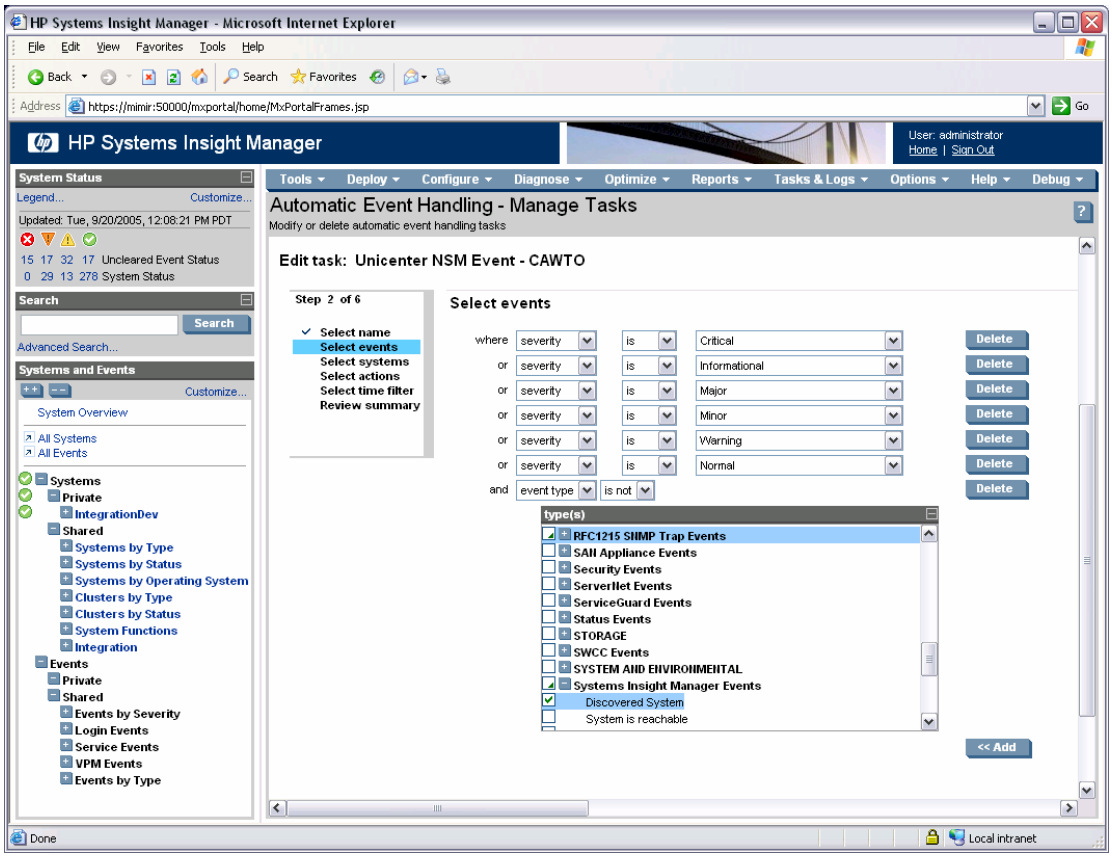
Figure 38 HP Systems Insight Manager Custom Commands



3. After the custom command is created, select **Options>Events>Automatic Event Handling,** and create a new HP SIM task.
4. Name the task then select the events to run the task against (refer to Figure 39).
5. Select the systems to run the task against.
6. Select custom command as the action and select the name of the command you created previously.

   Whenever HPSIM receives one of the configured events from the specified systems, it will execute the hpsimnsm.cmd script. This script calls the hpsimnsm.exe program with the appropriate environment variables to create the Unicenter event.

Figure 39 Automatic Event Handling–Mange Tasks window



The following are examples of forwarded events. The status is mapped directly from the status of the event in HPSIM. If none of the following can be matched, the status defaults to Informational.

- Critical = Severity E = Color red
- Major = Severity W = Color orange
- Minor = Severity W = Color yellow
- Normal = Severity S = Color green
- Informational = Severity S = Color blue

The category and source in the `cawto` command are both set to “HPSIM.”

Figure 40 Enterprise Management Console window

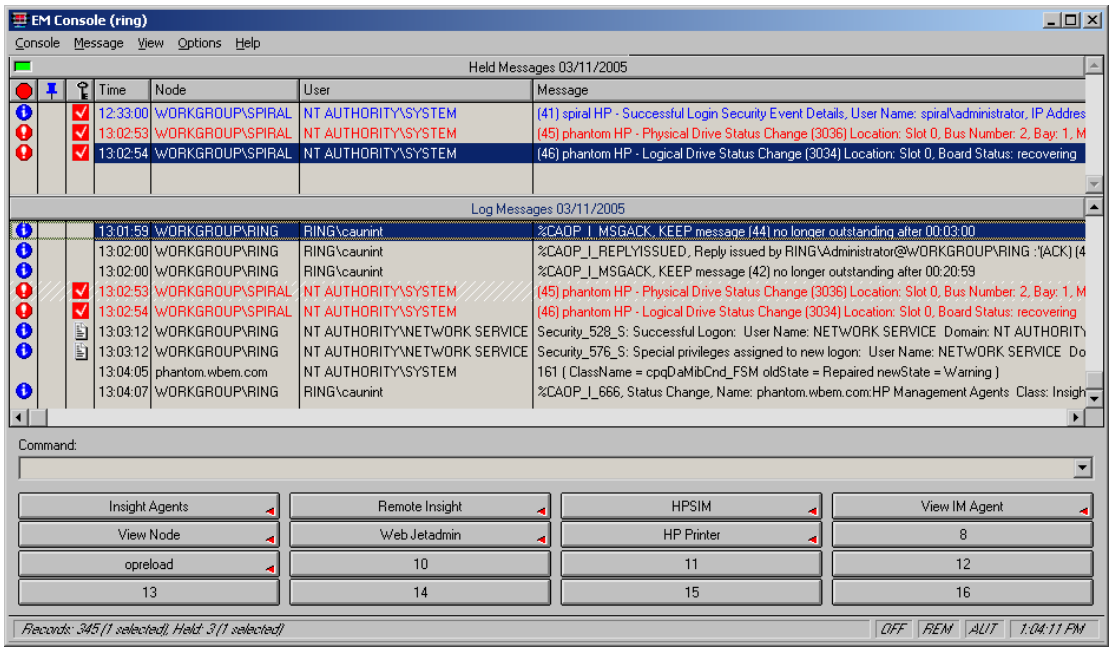
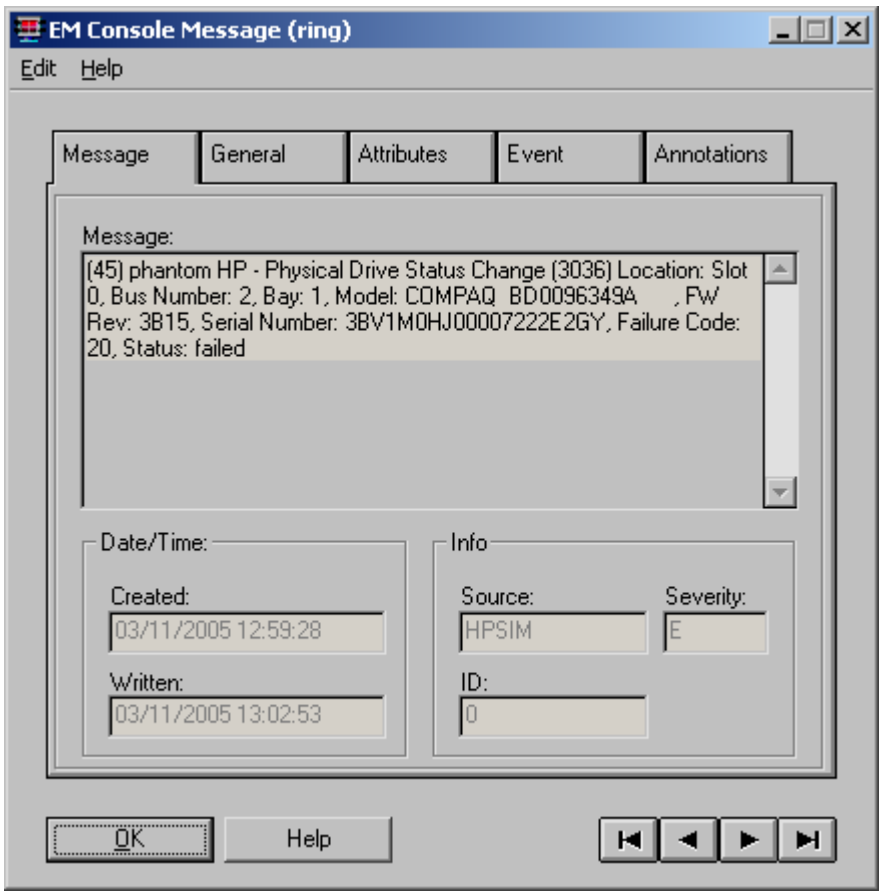


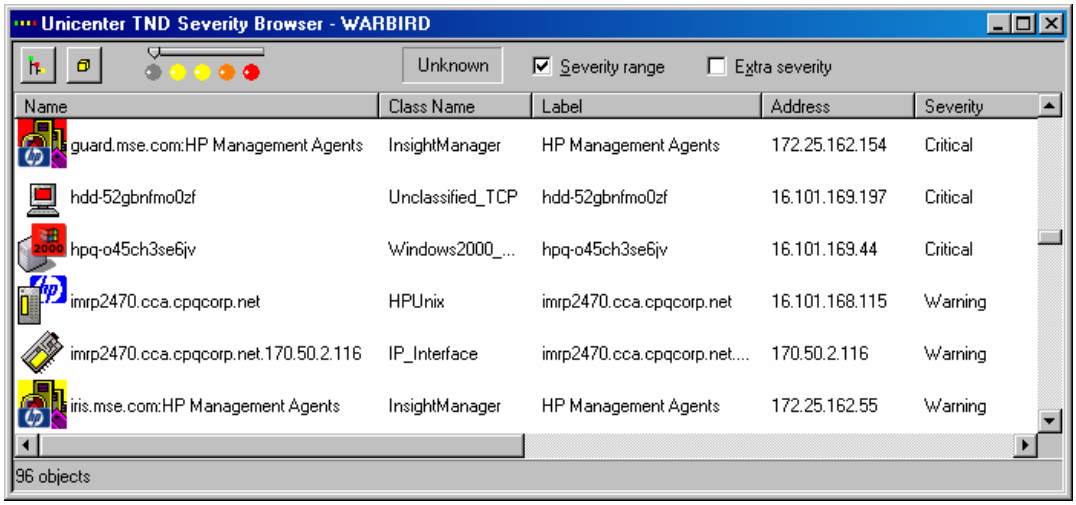
Figure 41 Enterprise Management Console Message window



Unicenter Severity Browser

The Unicenter Severity Browser can be used to provide a quick status of the systems on your network, including the status of HP hardware being managed. Figure 42 shows the Unicenter Severity Browser, indicating the status of the Unicenter Agents (for example, the NT System Agent and the SQL Server Agent) and the HP Insight Management Agents. This provides you with a quick overview of systems that are in a degraded or failed state.

Figure 42 Unicenter Severity Browser displaying HP system status



Unicenter and HP Insight Manager Integration notes

In some situations, you might be required to rebuild the Unicenter CORE. In these cases, you might be required to reinstall the Insight Integration to ensure that the HP classes and menus are represented correctly in the new repository.

Browsing the HP MIBs

When using the Mibbrowse utility, some SNMP variables are listed as `NOT FOUND`. This situation indicates that your agent does not implement these SNMP variables.

HP clients in the Unicenter integration

Support for HP client systems in the integration module is currently limited to systems running SNMP and the HP Insight Management Agents. HP clients are defined as systems that are not running the HP Server Management Agents. These systems include HP Deskpros, HP Armada portables, and HP Evo systems.

The integration with CA Unicenter has been written to provide primary support for the ProLiant server family of products. Limited information is available for clients in the Agent View and Node View of the Insight Integration. The following support for clients is provided:

- HP clients running SNMP and the HP Insight Management Agents will be discovered in the integration and will be identified by the HP Management Agent icon on the Unicenter map.
- Alarms from HP clients will be received in the Unicenter Enterprise Management Console. These alarms are defined in the HP message records (many are defined in the cpqdesktop.txt file).
- The Web browser can be launched from the Unicenter map to the HP Web-enabled Management Agents running on a client system.

Figure 43 and Figure 44 show examples of a system running the client agents viewed through the integration. This is what would normally be seen when using the Agent View and Node View on a client system.

Figure 43 HP Agent view in Unicenter retrieving information from an HP client system

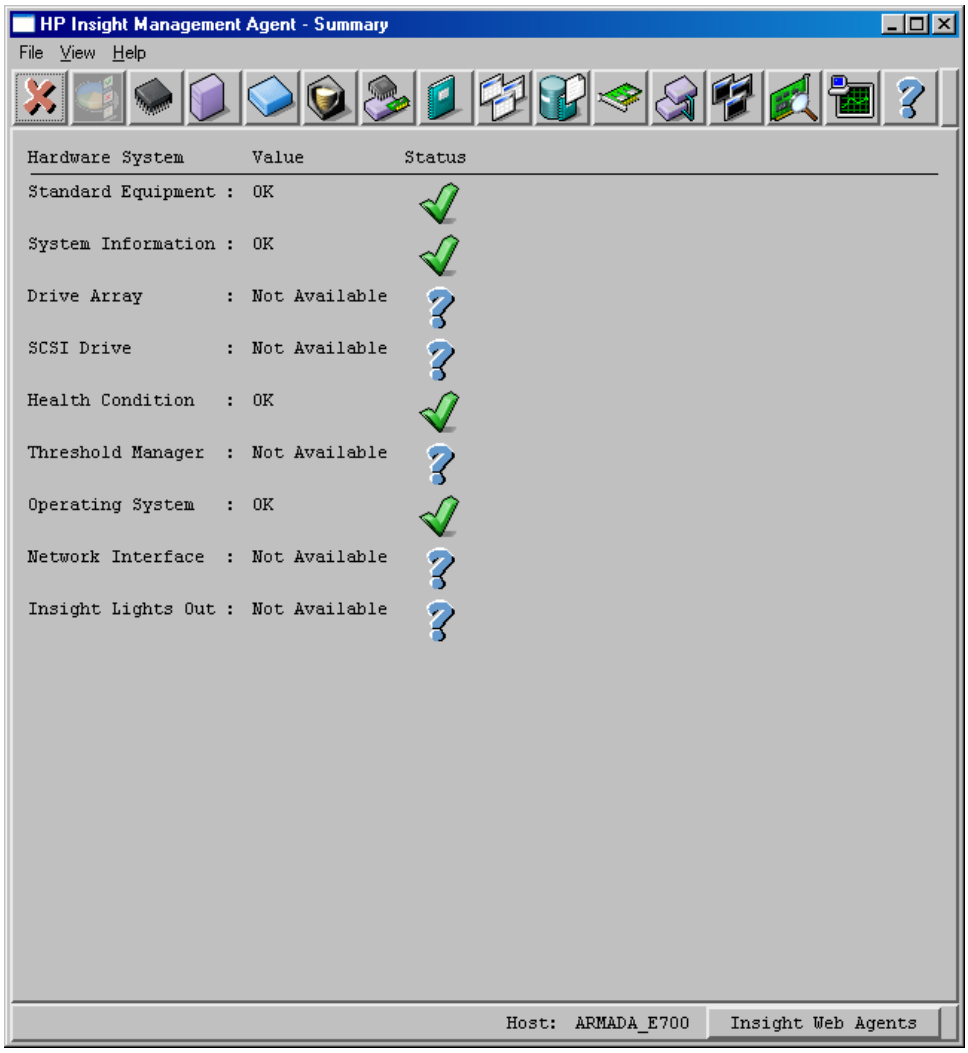
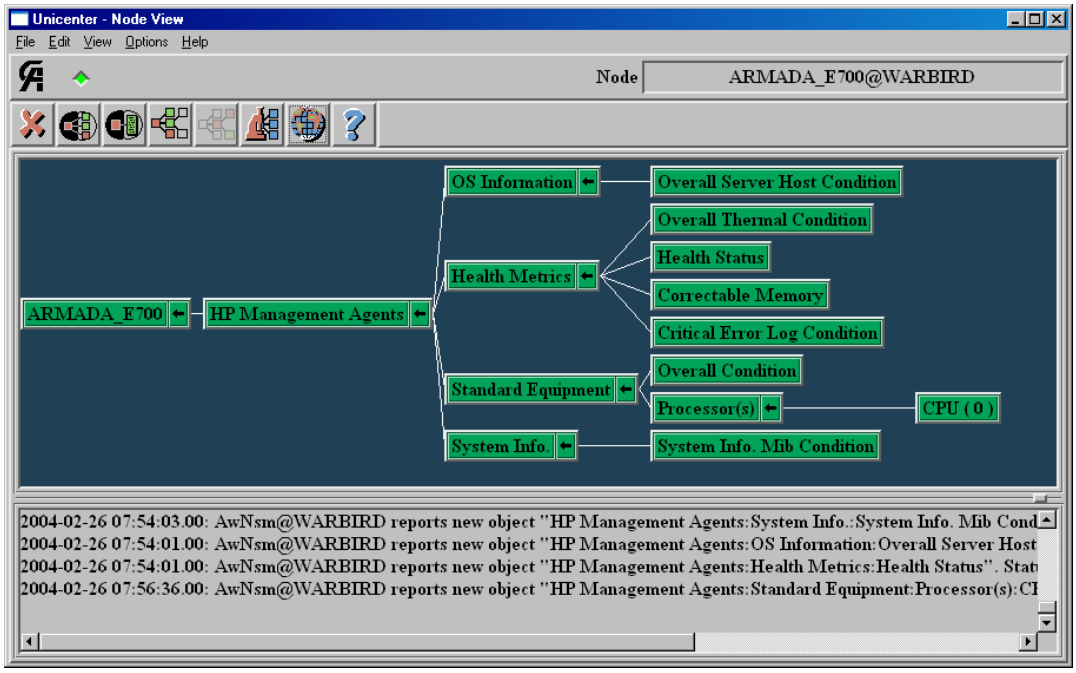


Figure 44 Unicenter Node View retrieving information from an HP client system



HP DMI clients in the Unicenter integration

This section describes the information received from HP Desktops running the HP DMI agents. Most of the management for clients should occur through the use of the Web-enabled agents. The following four figures show examples of a system running the client agents viewed through the Unicenter DMI Manager.

Figure 45 shows the pop-up menu for the DMI service on an HP client. This window is reached by drilling down to a specific system from the Unicenter WorldView map. This system is running the HP DMI Agents and does not show an HP icon.

Figure 45 Unicenter DMI Service menu

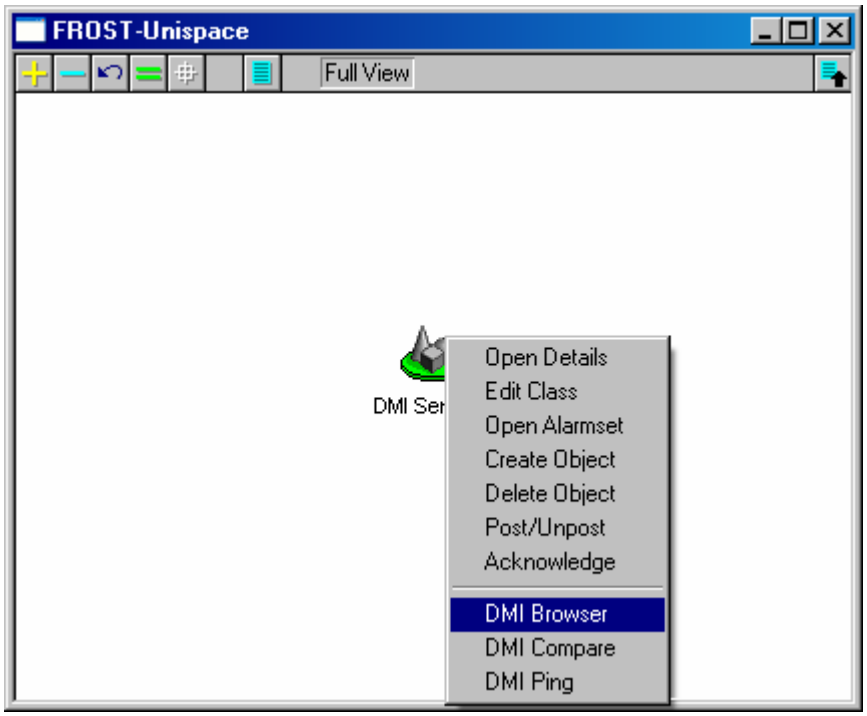


Figure 46 shows the DMI browser pointed to an HP Client running only the DMI agents. The Compaq Monitor Information and Compaq PC Systems MIF entries listed provide information into the DMI browser. The browser can be launched from the WorldView map (which brings up the selected node), or from the menu (in which case you must enter the name of the machine to browse).

Figure 46 DMI Browser pointed to an HP client system

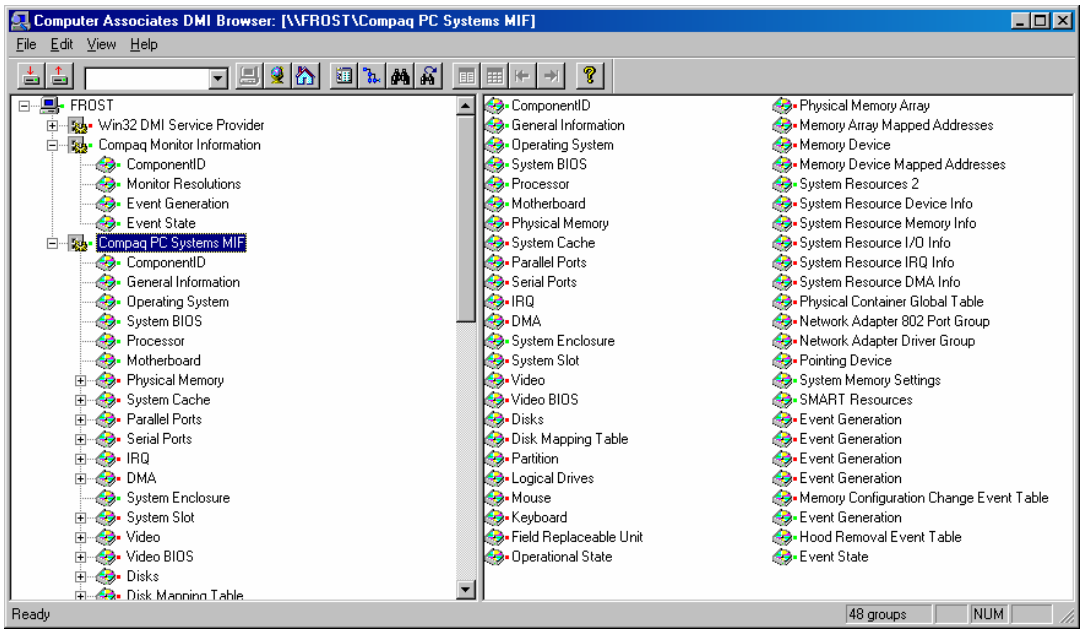
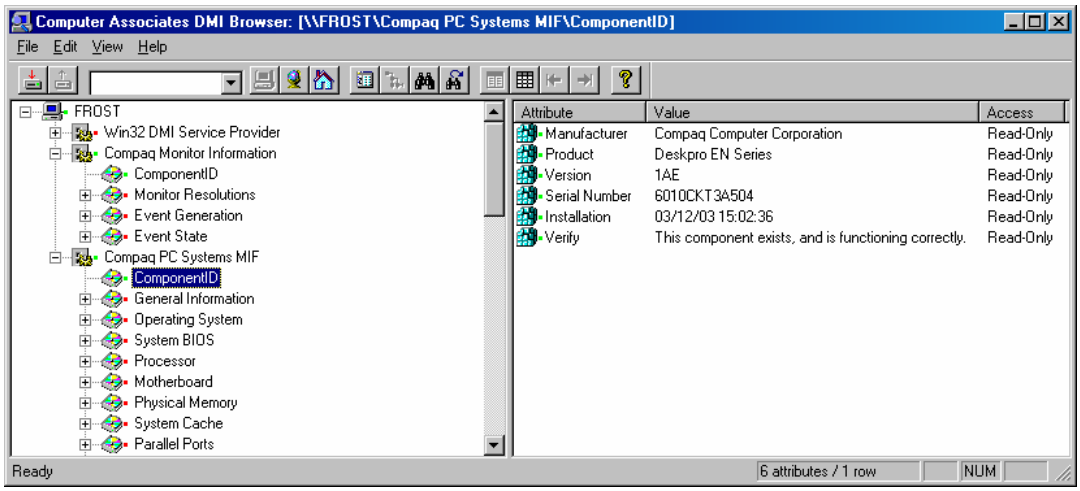


Figure 47 shows an example of the information provided in the Compaq PC Systems MIF. The ComponentID field is selected and displayed. This field contains information on the manufacturer, product, version, and serial number of the selected computer.

Figure 47 Drilling into the Compaq PC Systems MIF



Troubleshooting

The troubleshooting section provides general tips on items to check if the integration is not functioning properly. Some of these tips are provided in a question and answer format.

HP Management Agent discovery issues

Version 3.2 of the Insight Integration for CA Unicenter provides extended discovery and classification for HP systems. In some situations, this discovery might not work. This section discusses several reasons why HP systems might not be discovered and provides some tips on verifying the HP Management Agent setup.

Supported classes

The DSM only checks classes supported in the integration to see if a device of that class is an HP device. If Unicenter discovers a device as one of the following, then the DSM will check to see if it is an HP device. If it is not classified as one of these by Unicenter the integration will not check to see if it is an HP device.

- Windows NT
- Windows 95
- Windows 9x
- Windows NT Server
- Windows 2000
- Windows 2000 Server
- Windows XP
- Windows NetServer
- Novell
- UnixWare
- SCO UNIX
- Linux
- DEC System
- OS/2

Changing the default community string

If a community string other than "public" is being used for SNMP read access, you must update the Pollset for InsightManager. The Pollset can be changed using the Pollset Browser.

The DSM wizard should be used to update the class with the correct SNMP community strings.

NOTE: The adminCommunityString can be changed in a similar manner.

Verifying agent communication

You can verify that the HP Insight Management Agents are installed and that the management console can communicate with the utilities provided in Unicenter.

Unicenter has an SNMPGET utility you can use to see if the management console is receiving a response from the HP Insight Management Agents. The general format for the command is:

```
C:\tng\bin\snmpget.exe-c COMMUNITY IPADDRESS 1.3.6.1.4.1.232.1.1.1.0
```

The HP OID specified here is the one used for discovery of HP systems by the DSM policy. You will see something similar to this on a request, and the response should be relatively quick. The response shows that this is an HP box, and it should be discovered by the integration.

```
C:\TNG\BIN>snmpget-c public 172.25.162.30 1.3.6.1.4.1.232.1.1.1.0
1.3.6.1.4.1.232.1.1.1.0: INTEGER: 1
```

An error might return a message similar to the following:

```
C:\TNG\BIN>snmpget –c public 172.25.162.191
1.3.6.1.4.1.232.1.1.1.0
```

```
snmpget: Agent reported error with variable #1

1.3.6.1.4.1.232.1.1.1.0: SNMP: Variable does not exist or access is
denied
```

If the HP OID is not queried successfully, then the specified system will not be discovered as an HP device. There are several steps to troubleshoot the problem:

1. Verify that SNMP is loaded on the target machine.
2. Verify that the correct community string is being used.
3. Verify that the HP Insight Management Agents are loaded on the target machine.
4. Run the Unicenter MIB browsing utility to see if the HP MIBs were loaded into the database correctly. Run the utility and click the connect icon (phone icon). You should see the HP MIBs beginning with the letters CPQ in the dropdown selection box.

```
C:\tng\bin\mibbrowse.exe
```

Other troubleshooting issues

This following sections discuss other issues that might occur when using the integration.

TRIX exits when importing classes

TRIX generates a Dr. Watson message when importing the HP-specific classes into a Unicenter 3.0 install.

Download and install patch QO39829.CAZ from ftp://ftp.ca.com/CAproducts/unicenter/CCS30/nt/0211/qo39829/QO39829.CAZ.

Discovery command

Both the Remote Insight/iLO devices and the host systems must be discovered by Unicenter for the device association to successfully occur. Ping discovery can be executed on the managed subnet to help with device discovery.

```
dscvrbe -R REPOSITORY -J IP -D PINGSWEEP -M 172.25.161.*
```

Discovery problem

If hpqdscvr.exe abends when running discovery, verify that the discovery log file is not open and execute the program again.

Gwclass.dat with multiple entries

If you install the integration multiple times, the gwclass.dat file will have the string "HP_Host|HP_Workstation|" appended to the end several times. Edit the file to remove the extra occurrences of the string.

Discovered HP systems only show agents as Any:Absent

The gwclass.dat file is edited during the installation to append "HP_Host|HP_Workstation|" to the end of the file. If this edit is not performed, systems in the HP* classes will not display discovered agents. Verify that this entry has been made in the gwclass.dat file.

To make this addition to the file:

1. Change to the \hpqnsm32\cpqwv\classes directory.
2. Run the file hpgwedit.exe.
3. The output should be similar to the following:

```
GWCLASS.DAT
Current=Agent|Bridge|Host|Hub|Printers|Router|Switch|Workstation|ManagedPC|Xterm|
OtherDevices|Unclassified_Class|Access_Point|UPS|

GWCLASS.DAT
New=Agent|Bridge|Host|Hub|Printers|Router|Switch|Workstation|ManagedPC|Xterm|Othe
rDevices|Unclassified_Class|Access_Point|UPS|HP_Host|HP_Workstation|

File gwclass.dat successfully updated.
```

Alternatively, you can edit the file and add the entry manually.

Environment variables not properly set

The two environment variables used by the integration are placed in the following location in the registry:

HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Session Manager\Environment

If the IMAddress and CAI_MSG_EXIT environment variables do not get set properly during the installation, they can be set manually.

1. Right-click **My Computer** and select **Properties.**
2. Select the **Advanced** tab.
3. Click the **Environment Variables** button.
4. In the **System Variables** window, select **CAI_MSG_EXIT** and click **Edit.**
5. Enter **`HPQEMC.EXE`** in the **Variable Value** field and click **OK.**
6. In the **System Variables** window, select **IMAddress** and click **Edit.**
7. Enter the address of the Insight Manger server in the **Variable Value** field and click **OK.**
8. Click **OK** twice to exit the windows.
9. Restart the system for the changes to take effect.

New message records not used

The integration kit was installed, but the new message records are not being utilized (most of the trap messages still say Compaq).

The old message records are not removed by default when the new message records are installed on a system. Run the cpqem_remove script from the previous version of the integration to remove the old message records from the database.

Existing message records are not automatically removed to enable the user to preserve any customizations that might have been created.

If only the message records that are new since the last version of the integration must be installed, change to the \cpqem\new3.1 directory and run the loadnew script.

In-context launch to HP Systems Insight Manager fails

When performing an in-context launch to Systems Insight Manager, a Web page displays the message “An error occurred when generating the page.”

Verify that you are using the correct launch program for Systems Insight Manager. The file hpsimlnh.exe should be used instead of hpim7.exe. If you are using Systems Insight Manager, you can delete hpim7.exe from the Unicenter\bin directory, rename hpsimlnh.exe to hpim7.exe, and copy the renamed file to the Unicenter\bin directory.

Remote Insight Inclusion not created

These conditions must be met before the inclusion link for the Remote Insight/iLO management processor in a server will be created.

Both the server and the Remote Insight/iLO management processor must be discovered by Unicenter. The Remote Insight object will remain on the Unicenter segment map.

The Remote Insight/iLO management processor must be classified in the HP_RemoteInsight class.

Frequently asked questions

Why are the HP Management Agents not discovered on HP_RemoteInsight devices?

To avoid severity propagation errors like the following, HP_RemoteInsight devices are no longer monitored for the HP Management Agents. Only the host servers are monitored for the agents.

To achieve this, the hpqdscvr program deletes any InsightManager objects that have the state "ANY:ABSENT" when it is executed. Any devices that are reclassified as HP_RemoteInsight objects will have their InsightManager objects deleted during this step.

This can result in other InsightManager objects with the status of "ANY:ABSENT" being deleted. In this case, the agents will be rediscovered by the DSM when they return to the UP state.

Sample severity propagation error:

"CA-Unicenter TND Severity Propagation_0_E: <No Message Table> CA-Unicenter TND Severity Propagation Circular reference. Inclusion object ignored. Inclusion: ccd495bd-68f1-447b-aa75-e90266b8373f Parent: 8bd6702b-43c4-4e4d-9019-bcffee624362 Child: 15a57601-5a94-4719-acee-03cdd39eade7"

When launching to Insight Manager 7, why does the browser open and shows the "this page cannot be displayed" error message?

The browser could not find the HP Insight Manager 7 server. Edit the IMAddress environment variable with the correct IP address of the HP Insight Manager 7 server on the network.

When launching to HP Insight Manager 7, why does the browser open after logging into the server and shows the "The device at IPADDRESS was not found. The device was not found" error message?

The device launched has not been discovered by the HP Insight Manager 7 server. Log into the HP Insight Manager 7 server and run discovery on the subnet containing the device, or add the device into HP Insight Manager 7 manually.

When installing the HP message records, why does the following error occur: "line no 623, no such file or directory"?

The size of the file being imported is causing problems with CAUTIL. Obtain an updated version of cautil.exe from Computer Associates that can handle file sizes larger than 13 KB, or break up the file into parts smaller than 13 KB each before loading them into the database.

When launching the Web browser to a device, why is there a message saying that the page cannot be displayed or a connection cannot be established?

Currently, the HP Insight Agents menu option appears on all HP systems. In this case, the Web agents might not be running on the device that you are trying to browse.

Why is the pop-up menu on the HP Management Agent icon duplicated (entries are listed twice)?

If you were running a previous version of the integration, all menu entries in the Unicenter database were not removed before installing the new integration. Run the Unicenter Object Browser and navigate to TNGRoot and then Popup_Menu. Search for entries with the name CIMAgt and delete the duplicate entries.

Why are the original SNMP traps from HP devices not discarded in the Unicenter Event Console?

HP keeps the original SNMP trap along with the event translation in the Unicenter Event Console. The original trap is kept to provide extra information if necessary. You can suppress the original trap by adding the lines

"`DEFine MSGCTion NAME=(*,5)`" *and* "`ACTION=SUPPRESS`"

between the TYPE=MSG and DEFine MSGACTion NAME=(*,10) lines in the existing message records. Ensure that these lines are added for each message record.

How do I load into the database only the alarm translations that I require?

The easiest way to do this is to edit the cpqload.bat file and delete the line that loads the message records you do not want. For example, deleting the line `cautil -f cpqnt.txt` from the cpqload.bat file will prevent the translations for the HP NT OS Management alarms from being loaded into the database. If you must remove specific alarms, edit the individual files containing the alarms you want removed. You can also go into the Unicenter Message Records list and delete the message records you do not want after the integration has been installed.

Why do I not see any HP event translations after loading the HP message records?

1. Verify that SNMP trap processing is turned on at the management console so you can receive HP alarms. To turn on SNMP trap processing, select **Enterprise Management>Configuration>Settings>SNMP Trap Server Activated,** and set the value to **ON.**
2. Issue the `opreload` command in the Event Console after installing the HP message records to load the new records into the database.

How do I see a list of all my systems with HP Insight Management Agents?

1. Start the TNG Object Browser (for example: Select **Start>Programs>Unicenter>WorldView>Object Browser**).
2. In the tree view, navigate to **TNGRoot>ManagedObject>Agent>InsightManager.**
3. Select **InsightManager to** display a list of all your HP Insight Management Agents that have been discovered.

How do I mark entries in the Integrated Management Log as corrected?

The HP Agent View provides the ability to view the Integrated Management Log on a system. However, it does not provide the ability to mark as corrected the entries in the log. To mark log entries as corrected, use the options provided through the HP System Management Homepage and Insight Management Agents.

Why does the message "An error occurred while processing this request" appear when using the Agent View window?

This message appears when you request information from the Agent View window, but the hardware subsystem is not present on a system. For example, the initial Agent View window provides status on the Drive Array system and the SCSI system, but if either of these systems is not present in the device, the Agent View warning will appear.

Why do the new HP message records not display all the information on hard drive alerts?

The new HP hard drive alarms pass several fields of information that were not sent with previous alarms (including Model, Serial Number, Firmware Revision). The message records for the new alarms attempt to parse the trap information and display it to the user. This is very dependent on consistency in the trap, so if some drives do not send the model information, the information after the model field displayed to the user will be incorrect.

For example, the following trap did not send the model number. All the basic trap information is correct, but the extended information after Model might be invalid.

```
HP Drive Array Physical Drive Status Change (3029): FAILED (Controller:
5, Bus: 1, Drive Bay: 1 Model:, Firmware: VALUE:, S/N: VALUE:, Failure
Code: .iso.org.dod.internet.private.enterprises.232.3.2.5.1.1.55.5.1)
```

This is the same trap with all the data fields correctly transmitted and parsed by the message records.

```
HP Drive Array Physical Drive Status Change (3029): FAILED (Controller:
5, Bus: 1, Drive Bay: 1 Model: COMPAQ WDE2170S , Firmware: 1.52, S/N:
WS7000134715, Failure Code: 20)
```

Devices appear on the map with the new HP icons, but no agents are discovered running on the HP devices. Why?

Verify that the gwclass.dat file located in UnicenterDirectory\services\config\aws_wvgate contains the entries "HP_Host|HP_Workstation|" at the end of the line. These entries tell the Distributed State Machine to monitor the new HP classes.

Why do my HP agents in Node View display SCSI devices when my system is running a drive array?

The HP SCSI agent is running on the monitored system. Since the agent is running, the SCSI MIB variables are discovered and some information is displayed.

Technical support

Before you contact HP

Be sure to have the following information available before you call HP:

- Technical support registration number (if applicable)
- Product serial number
- Product model name and number
- Applicable error messages
- Add-on boards or hardware
- Third-party hardware or software
- Operating system type and revision level

HP contact information

For the name of the nearest HP authorized reseller:

- In the United States, refer to **www.hp.com/service_locator**.
- In Canada, refer to **www.hp.com**.
- In other locations, refer to the HP website **http://www.hp.com**.

For HP technical support:

- In North America:
  - Call 1-800-HP-INVENT (1-800-474-6836). This service is available 24 hours a day, 7 days a week. For continuous quality improvement, calls may be recorded or monitored.
  - If you have purchased a Care Pack (service upgrade), call 1-800-633-3600. For more information about Care Packs, refer to the HP website **http://www.hp.com**.
- Outside North America, call the nearest HP Technical Support Phone Center. For telephone numbers for worldwide Technical Support Centers, refer to the HP website **http://www.hp.com**.

Appendix A

HP Insight Integration state change messages

The following information describes the state change messages defined in the InsightManager Agent policy files.

State Event Messages defined in the InsightManager.dat file :

- HostMibCond:\$event:\$oldState:\$newState:$hostName $reason
- ThermalCondition:\$event:\$oldState:\$newState:$hostName $reason
- HealthStatFSM:\$event:\$oldState:\$newState:$hostName $reason
- cpqCorrectableMemory:\$event:\$oldState:\$newState:$hostName $reason
- CriticalErrorLog_FSM:\$event:\$oldState:\$newState:$hostName $reason
- EquipmentCondition:\$event:\$oldState:\$newState:$hostName $reason
- cpu_fsm:\$event:\$oldState:\$newState:$hostName:$cpqSeCpuUnitIndex $reason
- SystemInfoMibCondition:\$event:\$oldState:\$newState:$hostName $reason
- ThresholdCondition:\$event:\$oldState:\$newState:$hostName $reason
- UPSCondition:\$event:\$oldState:\$newState:$hostName $reason
- UPSLineStatus:\$event:\$oldState:\$newState:$hostName $reason
- cpqScsiMibCnd_FSM:\$event:\$oldState:\$newState:$hostName $reason
- ScsiCntrl_FSM:\$event:\$oldState:\$newState:$hostName:$cpqScsiCntrlIndex $reason
- ScsiLogicalDrive_fsm:\$event:\$oldState:\$newState:$hostName:$cpqScsiLogDrvIndex $reason
- ScsiPhysicalDrive_fsm:\$event:\$oldState:\$newState:$hostName:$cpqScsiPhyDrvIndex $reason
- cpqDaMibCnd_FSM:\$event:\$oldState:\$newState:$hostName $reason
- DACntrlEnt_fsm:\$event:\$oldState:\$newState:$hostName:$cpqDACntrlIndex $reason
- Accelerator_fsm:\$event:\$oldState:\$newState:$hostName:$cpqDAccIndex $reason
- IdaLogicalDrive_fsm:\$event:\$oldState:\$newState:$hostName:$cpqIdaLogDrvIndex $reason
- IdaPhysicalDrive_fsm:\$event:\$oldState:\$newState:$hostName:$cpqDaPhyDrvIndex $reason
- CPQ_ClusterFSM:\$event:\$oldState:\$newState:$hostName $reason
- CPQ_RemoteInsight_FSM:\$event:\$oldState:\$newState:$hostName $reason
- CPQ_FibreChannelFSM:\$event:\$oldState:\$newState:$hostName $reason
- CPQ_NIC_FSM:\$event:\$oldState:\$newState:$hostName $reason
- CPQ_RACKENCLOSURE_FSM:\$event:\$oldState:\$newState:$hostName $reason

DSM policy state change messages (oldState and newState will vary):

- 161 (ClassName = HostMibCond oldState = ?? newState = ??)
- 161 (ClassName = ThermalCondition oldState = ?? newState = ??)
- 161 (ClassName = HealthStatFSM oldState = ?? newState = ??)
- 161 (ClassName = cpqCorrectableMemory oldState = ?? newState = ??)
- 161 (ClassName = CriticalErrorLog_FSM oldState = ?? newState = ??)
- 161 (ClassName = EquipmentCondition oldState = ?? newState = ??)
- 161 (ClassName = cpu_fsm oldState = ?? newState = ??)
- 161 (ClassName = SystemInfoMibCondition oldState = ?? newState = ??)
- 161 (ClassName = ThresholdCondition oldState = ?? newState = ??)
- 161 (ClassName = UPSCondition oldState = ?? newState = ??)
- 161 (ClassName = UPSLineStatus oldState = ?? newState = ??)
- 161 (ClassName = cpqScsiMibCnd_FSM oldState = ?? newState = ??)
- 161 (ClassName = ScsiCntrl_FSM oldState = ?? newState = ??)
- 161 (ClassName = ScsiLogicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = ScsiPhysicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = cpqDaMibCnd_FSM oldState = ?? newState = ??)

- 161 (ClassName = DACntrlEnt_fsm oldState = ?? newState = ??)
- 161 (ClassName = Accelerator_fsm oldState = ?? newState = ??)
- 161 (ClassName = IdaLogicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = IdaPhysicalDrive_fsm oldState = ?? newState = ??)
- 161 (ClassName = CPQ_ClusterFSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_RemoteInsight_FSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_FibreChannelFSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_NIC_FSM oldState = ?? newState = ??)
- 161 (ClassName = CPQ_RACKENCLOSURE_FSM oldState = ?? newState = ??)

Table 8 Result of Acknowledgment by User possible state change values

oldState value	newState value
Broken	CriticalAcknowledged
Warning	WarningAcknowledged
Repaired	Up

Table 9 Result of Polling by DSM possible state change values

oldState value	newState value
CriticalAcknowledged	• Repaired • Warning
WarningAcknowledged	• Repaired • Broken
Down	• Repaired • Warning • Broken
Broken	• Repaired • Warning
Unknown	• Up • Warning • Broken
Repaired	• Warning • Broken
Up	• Warning • Broken
Warning	• Repaired • Broken

Polling State Change Message examples:

- 161 (ClassName = cpqScsiMibCnd_FSM oldState = Up newState = Broken)
- 161 (ClassName = ScsiCntrl_FSM oldState = Up newState = Broken)
- 161 (ClassName = cpqScsiMibCnd_FSM oldState = Broken newState = Repaired)
- 161 (ClassName = ScsiCntrl_FSM oldState = Broken newState = Repaired)

Acknowledged State Change examples:

- (ClassName = HealthStatFSM oldState = Broken newState = CriticalAcknowledged)
- (ClassName = HealthStatFSM oldState = Warning newState = WarningAcknowledged)
- (ClassName = ScsiCntrl_FSM oldState = Repaired newState = Up)

State Event Messages defined in the InsightManager.dat file for the Overall Status Policy:

- HP_HostOS_Status:\$event:\$oldState:\$newState:$hostName $reason

- HP_Health_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_StandardEquipment_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_SystemInfo_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_SCSI_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_DriveArray_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_Cluster_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_RemoteInsight_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_FibreChannel_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_NIC_Status:\$event:\$oldState:\$newState:$hostName $reason
- HP_RackEnclosure_Status:\$event:\$oldState:\$newState:$hostName $reason

DSM State Change polling messages for the Overall Status Policy (oldState and newState will vary):

- 161 (ClassName = HP_HostOS_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_Health_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_StandardEquipment_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_SystemInfo_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_SCSI_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_DriveArray_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_Cluster_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_RemoteInsight_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_FibreChannel_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_NIC_Status oldState = ?? newState = ??)
- 161 (ClassName = HP_RackEnclosure_Status oldState = ?? newState = ??)

Table 10 Result of Acknowledgment by User possible state change values

oldState value	newState value
Broken	CriticalAcknowledged
Warning	WarningAcknowledged
Repaired	Up

Table 11 Result of Polling by DSM possible state change values

oldState value	newState value
CriticalAcknowledged	• Repaired • Warning
WarningAcknowledged	• Repaired • Broken
Down	• Repaired • Warning • Broken
Broken	• Repaired • Warning
Unknown	• Up • Warning • Broken
Repaired	• Warning • Broken
Up	• Warning • Broken

Table 11 Result of Polling by DSM possible state change values

oldState value	newState value
Warning	• Repaired • Broken

Polling State Change Message examples:

- 161 (ClassName = HP_SCSI_Status oldState = Up newState = Broken)
- 161 (ClassName = HP_SCSI_Status oldState = Broken newState = Repaired)

Acknowledged State Change examples:

- (ClassName = HP_Health_Status oldState = Broken newState = CriticalAcknowledged)
- (ClassName = HP_Health_Status oldState = Warning newState = WarningAcknowledged)

Appendix B

HP SNMP traps

The following tables describe the HP SNMP Traps supported in the integration module. These tables include traps up to version 7.00 of the HP Insight Management Agents. The traps are grouped by functionality.

The following information is provided in the following tables. In some cases, N/A will be the supplied value indicating that information does not apply or is unknown.

Some event IDs in the tables might be duplicated. For example, Event ID 1124 is valid for trap cpqHe3FltTolPowerSupplyDegraded and for trap cpqHe4FltTolPowerSupplyDegraded.

- Trap ID—Name and SNMP trap ID from the MIBs
- MIB Severity—Severity code for the specific trap defined in the MIB
- Event ID—Windows Event Log ID number for the specific event
- Event Log Severity—Windows Event Log severity for the event
- Definition—Text description of the Trap/Event
- Agent Version—Last version of the management agents that sent the trap or generated the event
  - Current—A currently used trap.
  - x.yz—The version of the Insight Management agents that last used this trap.
  - RILOE/ILO—An event sent by the RILOE or iLO management processor and not the host operating system.

Standard Equipment MIB trap definitions

The following table lists the standard equipment MIB trap definitions.

Table 12 Standard equipment MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqSiMonitorCondition Failed = 2004	Critical	N/A	N/A	A fault-reporting feature has exceeded normal limits in the monitor indicated by the cpqSiMonitorIndex. The monitor's condition has been set to failed because of an operational feature exceeding normal operating limits. The monitor will not be usable and should be replaced. User action: Make a note of the monitor model number and serial number. Replace the monitor. Refer to the appropriate Maintenance and Service Guide for detailed information on a component replacement.	N/A
CpqSiCorrMemErrStatus Degraded = 2005	Minor	N/A	N/A	Correctable memory error count has exceeded the threshold for the memory module indicated by the cpqSiMemErrorIndex variable. The appropriate cpqSiMemModuleECCStatus has been set to degraded. User action: For Desktops, the system administrator should run the F10 Diagnostics on this system and select RAM LONG TEST. If it is determined that a module needs replacing, schedule maintenance for the system and replace the failed memory module. Refer to the appropriate maintenance and service guide for detailed information on a component replacement.	N/A

Table 12 Standard equipment MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqSiCorrMemErrStatus Ok = 2006	Informational	N/A	N/A	Correctable memory error count is now below the threshold for the memory module indicated by the cpqSiMemErrorIndex variable. The appropriate cpqSiMemModuleECCStatus has been set to OK. User action: None.	N/A
CpqSiMemConfig Change = 2007	Informational	N/A	N/A	A memory configuration change has occurred. CpqSiMemConfigChangeData will indicate which memory modules slots have changed. User action: Verify a valid reason for a memory configuration to have occurred. If the system issuing the alert is a Desktop running Windows NT, the memory configuration change information is also logged in the NT System Log.	N/A
CpqSiHotPlugSlotBoard Removed = 2008	Informational	1140	Warning	Hot-Plug Slot Board Removed. A Hot-Plug Slot Board has been removed from the specified chassis and slot. User action: None.	Current
CpqSiHotPlugSlotBoard Inserted = 2009	Informational	1141	Warning	Hot-Plug Slot Board Inserted. A Hot-Plug Slot Board has been inserted into the specified chassis and slot. User action: None.	Current
CpqSiHotPlugSlotPower UpFailed = 2010	Critical	1142	Error	Hot-Plug Slot Board Failed Power-Up. A Hot-Plug Slot Board has failed to power up in the specified chassis and slot. User action: Ensure that the board and all cables are installed correctly and the board type and revision are the same as the replaced board.	Current
CpqSiSysBattery Failure = 2011	Major	N/A	N/A	The battery indicated by cpqSiSysBatteryIndex has failed and must be replaced. User action: Contact your System Administrator or HP Authorized Reseller to order a replacement battery. Recycle your old battery. For proper disposal information, refer to the documentation that came with your computer.	N/A
CpqSiSysBattery Charging Degraded = 2012	Major	N/A	N/A	Significant battery degradation has occurred with battery indicated by cpqSiSysBatteryIndex. The battery can no longer be fully recharged. User action: If using multiple batteries, run HP Power Conservation Utility to identify the battery location. Contact your System Administrator or HP authorized reseller to order a replacement battery.	N/A
CpqSiSysBattery CalibrationError = 2013	Major	N/A	N/A	Calibration is needed for the battery indicated by cpqSiSysBatteryIndex. The battery cannot correctly indicate capacity. User action: Run HP Power Conservation Utility. Contact your system administrator or HP Authorized Reseller to order a replacement battery.	N/A

Drive array MIB trap definitions

The following table lists the drive array MIB trap definitions.

Table 13 Drive array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqDa2LogDrvStatus Change = 3001	Critical	N/A	N/A	Logical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array logical drive. The variable cpqDaLogDrvStatus indicates the current logical drive status.	2.50
cpqDa2SpareStatus Change = 3002	Critical	N/A	N/A	Spare Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array spare drive. The variable cpqDaSpareStatus indicates the current spare drive status. The variable cpqDaSpareBusNumber indicates the SCSI bus number associated with this drive.	2.50
cpqDa2PhyDrvStatus Change = 3003	Critical	N/A	N/A	Physical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. The variable cpqDaPhyDrvBusNumber indicates the SCSI bus number associated with this drive.	2.50
cpqDa2PhyDrvThresh PassedTrap = 3004	Critical	N/A	N/A	Physical Drive Threshold Passed. This trap signifies that the Insight Agent has detected that a factory threshold associated with one of the physical drive objects on an HP Drive Array has been exceeded. The variable cpqDaPhyDrvBusNumber indicates the SCSI bus number associated with the drive.	2.50
cpqDa2AccelStatus Change = 3005	Critical	N/A	N/A	Accelerator Board Status Change. This trap signifies that the Insight Agent has detected a change in the cpqDaAccelStatus of an HP 4-MB Array Accelerator Write Cache. The current status is represented by the variable cpqDaAccelStatus.	2.50
cpqDa2AccelBadData Trap = 3006	Critical	N/A	N/A	Accelerator Board Bad Data. This trap signifies that the Insight Agent has detected an HP 4-MB Array Accelerator Write Cache Board that has lost battery power. If data was being stored in the accelerator memory when the server lost power, that data has been lost.	2.50
cpqDa2AccelBattery Failed = 3007	Critical	N/A	N/A	Accelerator Board Battery Failed. This trap signifies that the Insight Agent has detected a battery failure associated with the HP 4-MB Array Accelerator Write Cache Board. The current battery status is indicated by the cpqDaAccelBattery variable.	2.50
cpqDa3LogDrvStatus Change = 3008	Critical	1062	Error	Logical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array logical drive. The variable cpqDaLogDrvStatus indicates the current logical drive status.	6.30

Table 13 Drive array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqDa3SpareStatus Change = 3009	Critical	N/A	N/A	Spare Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array spare drive. The variable cpqDaSpareStatus indicates the current spare drive status. The variable cpqDaSpareBusNumber indicates the SCSI bus number associated with this drive.	4.00
cpqDa3PhyDrvStatus Change = 3010	Critical	N/A	N/A	Physical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. The variable cpqDaPhyDrvBusNumber indicates the SCSI bus number associated with this drive.	4.00
cpqDa3PhyDrvThresh PassedTrap = 3011	Critical	N/A	N/A	Physical Drive Threshold Passed. This trap signifies that the Insight Agent has detected that a factory threshold associated with one of the physical drive objects on an HP Drive Array has been exceeded. The variable cpqDaPhyDrvBusNumber indicates the SCSI bus number associated with the drive.	4.00
cpqDa3AccelStatus Change = 3012	Critical	N/A	N/A	Accelerator Board Status Change. This trap signifies that the Insight Agent has detected a change in the cpqDaAccelStatus of an HP 4-MB Array Accelerator Write Cache. The current status is represented by the variable cpqDaAccelStatus.	4.70
cpqDa3AccelBadData Trap = 3013	Critical	N/A	N/A	Accelerator Board Bad Data. This trap signifies that the Insight Agent has detected an HP 4-MB Array Accelerator Write Cache Board that has lost battery power. If data was being stored in the accelerator memory when the server lost power, that data has been lost.	4.70
cpqDa3AccelBattery Failed = 3014	Critical	N/A	N/A	Accelerator Board Battery Failed. This trap signifies that the Insight Agent has detected a battery failure associated with the HP 4-MB Array Accelerator Write Cache Board. The current battery status is indicated by the cpqDaAccelBattery variable.	4.70
CpqDaCntlrStatus Change = 3015	Critical	N/A	N/A	Controller Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP array controller. The variable cpqDaCntlrBoardStatus indicates the current controller status. User action: If the board status is generalFailure (3), you might need to replace the controller. If the board status is cableProblem (4), check the cable connections between the controller and the storage system.	4.70
cpqDaCntlrActive = 3016	Informational	1165	Warning	Controller Active. This trap signifies that the Insight Agent has detected that a backup array controller in a duplexed pair has switched over to the active role. The variable cpqDaCntlrSlot indicates the active controller slot and cpqDaCntlrPartnerSlot indicates the backup. User action: Check the partner controller for problems. If this was the result of a user-initiated switch over, no action is required.	Current

Table 13 Drive array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqDa4SpareStatus Change = 3017	Critical	1063	Error	Spare Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array spare drive. The variable cpqDaSpareStatus indicates the current spare drive status. User action: If the spare drive status is failed, replace the drive.	6.30
cpqDa4PhyDrvStatus Change = 3018	Critical	N/A	N/A	Physical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. User action: If the physical drive failed or is predicting failure, replace the drive.	4.70
cpqDa4PhyDrvThresh PassedTrap = 3019	Critical	N/A	N/A	Physical Drive Threshold Passed. This trap signifies that the Insight Agent has detected that a factory threshold associated with one of the physical drive objects on an HP Drive Array has been exceeded. User action: If the physical drive is predicting failure, replace the drive.	4.70
CpqDaTapeLibraryStatus Change = 3020	Critical	N/A	N/A	Tape Library Status Change. This trap signifies that the agent has detected a change in the status of an HP tape library. The variable cpqDaTapeLibraryStatus indicates the current tape library status. The variable cpqDaTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library status is failed, check the tape library front panel.	5.40
CpqDaTapeLibraryDoor StatusChange = 3021	Critical	1181	Warning	Tape Library Door Status Change. This trap signifies that the agent has detected a change in the door status of an HP tape library. The variable cpqDaTapeLibraryDoorStatus indicates the current tape library door status. The variable cpqDaTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library door is open, close the tape library door.	6.30
CpqDaTapeDriveStatus Change = 3022	Critical	1182	Warning	Tape Drive Status Change. This trap signifies that the agent has detected a change in the status of an HP tape drive. The variable cpqDaTapeDrvStatus indicates the current tape status. The variable cpqDaTapeDrvScsiIdIndex indicates the SCSI ID of the tape drive. User action: If the tape status is failed, check the tape and all SCSI connections.	5.40
CpqDaTapeDrive CleaningRequired = 3023	Major	1183	Warning	Tape Drive Cleaning Required Trap. The agent has detected a tape drive that must have a cleaning tape inserted and run. This will cause the tape drive heads to be cleaned.	6.30
CpqDaTapeDriveClean TapeReplace = 3024	Major	1184	Warning	Tape Drive Cleaning Tape Needs Replacing. The agent has detected that an autoloader tape unit has a cleaning tape that has been fully used and therefore must to be replaced with a new cleaning tape.	6.30

Table 13 Drive array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqDa5AccelStatus Change = 3025	Critical	1065	Error	This trap signifies that the agent has detected a change in the status of an array accelerator cache board. The current status is represented by the variable cpqDaAccelStatus. User action: If the accelerator board status is permDisabled (5), you might need to replace the accelerator board.	6.30
cpqDa5AccelBadData Trap = 3026	Critical	1066	Error	This trap signifies that the agent has detected an array accelerator cache board that has lost battery power. If data was being stored in the accelerator cache memory when the server lost power, that data has been lost. User action: Verify that no data has been lost.	6.30
cpqDa5AccelBattery Failed = 3027	Critical	1067	Error	This trap signifies that the agent has detected a battery failure associated with the array accelerator cache board. User action: Replace the Accelerator Cache Board.	6.30
cpqDa5CntlrStatus Change = 3028	Critical	1164	Warning	This trap signifies that the agent has detected a change in the status of a drive array controller. The variable cpqDaCntlrBoardStatus indicates the current controller status. User action: If the board status is generalFailure (3), you might need to replace the controller. If the board status is cableProblem (4), check the cable connections between the controller and the storage system.	6.30
cpqDa5PhyDrvStatus Change = 3029	Critical	1064	Error	This trap signifies that the agent has detected a change in the status of a drive array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. User action: If the physical drive status is failed (3) or predictiveFailure (4), replace the drive.	6.30
cpqDa5PhyDrvThresh PassedTrap = 3030	Critical	1061	Error	This trap signifies that the agent has detected a factory threshold associated with one of the physical drive objects in a drive array has been exceeded. User action: Replace the physical drive.	6.30
cpqDa2TapeLibrary StatusChange = 3031	Critical	1180	Warning	This trap signifies that the agent has detected a change in the status of a tape library. The variable cpqDaTapeLibraryStatus indicates the current tape library status. The variable cpqDaTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library is failed, check the tape library front panel.	6.30
cpqDa2TapeDriveStatus Change = 3032	Critical	1182	Warning	This trap signifies that the agent has detected a change in the status of a tape drive. The variable cpqDaTapeDrvStatus indicates the current tape status. The variable cpqDaTapeDrvScsiIdIndex indicates the SCSI ID of the tape drive. User action: If the tape is failed, check the tape and all SCSI connections.	6.30

Table 13 Drive array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqDa6CntlrStatus Change = 3033	Critical	1199	Warning	This trap signifies that the agent has detected a change in the status of a drive array controller. The variable cpqDaCntlrBoardStatus indicates the current controller status. User action: If the board status is generalFailure (3), you might need to replace the controller. If the board status is cableProblem(4), check the cable connections between the controller and the storage system.	Current
cpqDa6LogDrvStatus Change = 3034	Critical	1200	Warning	This trap signifies that the agent has detected a change in the status of a drive array logical drive. The variable cpqDaLogDrvStatus indicates the current logical drive status.	Current
cpqDa6SpareStatus Change = 3035	Critical	1201	Warning	This trap signifies that the agent has detected a change in the status of a drive array spare drive. The variable cpqDaSpareStatus indicates the current spare drive status. User action: If the spare drive status is failed, replace the drive.	7.30
cpqDa6PhyDrvStatus Change = 3036	Critical	1202	Warning	This trap signifies that the agent has detected a change in the status of a drive array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. User action: If the physical drive status is failed (3) or predictiveFailure (4), replace the drive.	7.30
cpqDa6PhyDrvThresh PassedTrap = 3037	Critical	1203	Warning	This trap signifies that the agent has detected a factory threshold associated with one of the physical drive objects on a drive array has been exceeded. User action: Replace the physical drive.	Current
cpqDa6AccelStatus Change = 3038	Critical	1204	Warning	This trap signifies that the agent has detected a change in the status of an array accelerator cache board. The current status is represented by the variable cpqDaAccelStatus. User action: If the accelerator board status is permDisabled (5), you might need to replace the accelerator board.	Current
cpqDa6AccelBadData Trap = 3039	Critical	1205	Warning	This trap signifies that the agent has detected an array accelerator cache board that has lost battery power. If data was being stored in the accelerator cache memory when the server lost power, that data has been lost. User action: Verify that no data has been lost.	Current
cpqDa6AccelBattery Failed = 3040	Critical	1206	Warning	This trap signifies that the agent has detected a battery failure associated with the array accelerator cache board. User action: Replace the Accelerator Cache Board.	Current
cpqDa6TapeLibrary StatusChange = 3041	Critical	1207	Warning	This trap signifies that the agent has detected a change in the status of a tape library. The variable cpqDaTapeLibraryStatus indicates the current tape library status. The variable cpqDaTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library is failed, check the tape library front panel.	Current

Table 13 Drive array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqDa6TapeLibraryDoor StatusChange = 3042	Critical	1208	Warning	This trap signifies that the agent has detected a change in the door status of a tape library. The variable cpqDaTapeLibraryDoorStatus indicates the current tape library door status. The variable cpqDaTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library door is open, close the tape library door.	Current
cpqDa6TapeDriveStatus Change = 3043	Critical	1209	Warning	This trap signifies that the agent has detected a change in the status of a tape drive. The variable cpqDaTapeDrvStatus indicates the current tape status. The variable cpqDaTapeDrvScsiIdIndex indicates the SCSI ID of the tape drive. User action: If the tape is failed, check the tape and all SCSI connections.	Current
cpqDa6TapeDrive CleaningRequired = 3044	Major	1210	Warning	The agent has detected a tape drive that must have a cleaning tape inserted and run. This will cause the tape drive heads to be cleaned.	Current
cpqDa6TapeDriveClean TapeReplace = 3045	Major	1211	Warning	The agent has detected that an autoloader tape unit has a cleaning tape that has been fully used and therefore must be replaced with a new cleaning tape.	Current
cpqDa7PhyDrvStatus Change = 3046	Critical	1216	Varies with event severity	This trap signifies that the agent has detected a change in the status of a drive array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. User action: If the physical drive status is failed (3) or predictiveFailure (4), replace the drive.	Current
cpqDa7SpareStatus Change = 3047	Critical	1217	Varies with event severity	This trap signifies that the agent has detected a change in the status of a drive array spare drive. The variable cpqDaSpareStatus indicates the current spare drive status. User action: If the spare drive status is failed, replace the drive.	Current

SCSI MIB trap definitions

The following table lists the SCSI MIB trap definitions.

Table 14 SCSI MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqScsi2CntlrStatus Change = 5001	Critical	N/A	N/A	SCSI Controller Status Change. The Insight Agent has detected a change in the controller status of an HP SCSI Controller. The variable cpqScsiCntlrStatus indicates the current controller status.	2.50
cpqScsi2LogDrvStatus Change = 5002	Critical	N/A	N/A	Logical Drive Status Change. The Insight Agent has detected a change in the Logical Drive Status of an HP SCSI logical drive. The current logical drive status is indicated by the cpqScsiLogDrvStatus variable.	2.50

Table 14 SCSI MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqScsi2PhyDrvStatus Change = 5003	Critical	N/A	N/A	Physical Drive Status Change. The Insight Agent has detected a change in the status of an HP SCSI physical drive. The current physical drive status is indicated in the cpqScsiPhyDrvStatus variable.	2.50
CpqTapePhyDrvStatus Change = 5004	Critical	N/A	N/A	Tape Drive Status Change. The Insight Agent has detected a change in the status of an HP Tape drive. The current physical drive status is indicated in the cpqTapePhyDrvCondition variable.	2.50
cpqScsi3CntlrStatus Change = 5005	Critical	1068	Error	SCSI Controller Status Change. The Insight Agent has detected a change in the controller status of an HP SCSI Controller. The variable cpqScsiCntlrStatus indicates the current controller status.	Current
cpqScsi3PhyDrvStatus Change = 5006	Critical	N/A	N/A	Physical Drive Status Change. The Insight Agent has detected a change in the status of an HP SCSI physical drive. The current physical drive status is indicated in the cpqScsiPhyDrvStatus variable.	4.80
cpqTape3PhyDrvStatus Change = 5007	Critical	N/A	N/A	Tape Drive Status Change. The Insight Agent has detected a change in the status of an HP Tape drive. The current physical drive status is indicated in the cpqTapePhyDrvCondition variable.	4.70
cpqTape3PhyDrv CleaningRequired = 5008	Major	1119	Warning	Tape Drive Cleaning Required Trap. The Insight Agent has detected a tape drive that must have a cleaning tape inserted and run. This cleans the tape drive heads.	Current
cpqTape3PhyDrvClean TapeReplace = 5009	Major	1120	Warning	Tape Drive Cleaning Tape Needs Replacing. The Insight Agent has detected that an autoloader tape unit has a cleaning tape that has been fully used and therefore must be replaced with a new cleaning tape.	Current
cpqTape3Library Failed = 5010	Major	1156	Warning	Tape Library Error. The Insight Agent has detected that an autoloader unit has encountered an error.	5.30
cpqTape3Library Okay = 5011	Informational	1157	Warning	Tape Library Okay. The Insight Agent has detected that an autoloader unit has recovered from errors.	5.30
cpqTape3Library Degraded = 5012	Minor	1158	Warning	Tape Library Degraded. The Insight Agent has detected that an autoloader unit is in a degraded condition.	5.30
cpqTape3LibraryDoor Open = 5013	Critical	1159	Warning	Tape Library Door Open. The Insight Agent has detected that the door on an autoloader is open, so the unit is not operational.	Current
cpqTape3LibraryDoor Closed = 5014	Informational	1160	Warning	Tape Library Door Closed. The Insight Agent has detected that the door on an autoloader has closed.	Current
CpqScsiCdLibraryStatus Change = 5015	Critical	1161	Error	CD Library Status Change. The Insight Agent has detected a change in the status of an HP CD Library device. The current CD Library status is indicated in the cpqScsiCdLibraryCondition variable.	Current
cpqTape4PhyDrvStatus Change = 5016	Critical	1107	Error	The Storage Agent has detected a change in the status of a Tape drive. The current physical drive status is indicated in the cpqTapePhyDrvStatus variable.	5.30

Table 14 SCSI MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqScsi4PhyDrvStatus Change = 5017	Critical	1070	Error	Physical Drive Status Change. The Storage Agent has detected a change in the status of an HP SCSI physical drive. The current physical drive status is indicated in the cpqScsiPhyDrvStatus variable.	5.40
CpqTapeLibraryStatus Change = 5018	Critical	1191	Warning	The Storage Agent has detected a change in the status of a tape library. The current tape library status is indicated in the cpqTapeLibraryState variable.	Current
cpqTape5PhyDrvStatus Change = 5019	Critical	1192	Warning	The Storage Agent has detected a change in the status of a tape drive. The current physical drive status is indicated in the cpqTapePhyDrvStatus variable.	Current
cpqScsi5PhyDrvStatus Change = 5020	Critical	1070	Error	The Storage Agent has detected a change in the status of a SCSI physical drive. The current physical drive status is indicated in the cpqScsiPhyDrvStatus variable.	Current
cpqScsi3LogDrvStatus Change = 5021	Critical	N/A	N/A	The Storage Agent has detected a change in the status of a SCSI logical drive. The current logical drive status is indicated in the cpqScsiLogDrvStatus variable.	Current
cpqSasPhyDrvStatus Change = 5022	Critical	N/A	N/A	The Storage Agent has detected a change in the status of a SAS or SATA physical drive. The current physical drive status is indicated in the cpqSasPhyDrvStatus variable.	Current
cpqSasLogDrvStatusChange = 5023	Critical	N/A	N/A	The Storage Agent has detected a change in the status of a SAS or SATA logical drive. The current logical drive status is indicated in the cpqSasLogDrvStatus variable.	Current

Health MIB trap definitions

The following table lists the Health MIB trap definitions.

Table 15 Health MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqHe2Correctable MemoryError = 6001	Minor	N/A	N/A	A correctable memory error occurred. The error has been corrected. The current number of correctable memory errors is reported in the variable cpqHeCorrMemTotalErrs.	2.50
cpqHe2Correctable MemoryLogDisabled = 6002	Critical	N/A	N/A	Correctable memory error tracking is disabled. The frequency of errors is so high that the error tracking logic has been temporarily disabled. The cpqHeCorrMemLogStatus variable indicates the current tracking status.	2.50
CpqHeThermalTemp Failed = 6003	Critical	N/A	N/A	The temperature status has been set to failed. The system will be shut down because of this thermal condition.	2.50
CpqHeThermalTemp Degraded = 6004	Critical	N/A	N/A	The temperature status has been set to degraded. The server temperature is outside the normal operating range. The server will be shut down if the cpqHeThermalDegradedAction variable is set to shutdown (3).	2.50

Table 15 Health MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqHeThermalTemp Ok = 6005	Informational	N/A	N/A	The temperature status has been set to OK. The server temperature has returned to the normal operating range.	2.50
CpqHeThermalSystem FanFailed = 6006	Critical	N/A	N/A	The system fan status has been set to failed. A required system fan is not operating normally. The system will be shut down if the cpqHeThermalDegradedAction variable is set to shutdown (3).	2.50
CpqHeThermalSystem FanDegraded = 6007	Critical	N/A	N/A	The system fan status has been set to degraded. An optional system fan is not operating normally.	2.50
CpqHeThermalSystem FanOk = 6008	Informational	N/A	N/A	The system fan status has been set to OK. Any previously nonoperational system fans have returned to normal operation.	2.50
CpqHeThermalCpuFan Failed = 6009	Critical	N/A	N/A	The CPU fan status has been set to failed. A processor fan is not operating normally. The server will be shut down.	2.50
CpqHeThermalCpuFan Ok = 6010	Informational	N/A	N/A	The CPU fan status has been set to OK. Any previously nonoperational processor fans have returned to normal operation.	2.50
CpqHeAsr Confirmation = 6011	Minor	N/A	N/A	The server is operational again. The server that was shut down by the HP Automatic Server Recovery (ASR) feature has become operational again.	2.50
CpqHeThermal Confirmation = 6012	Minor	N/A	N/A	The server is operational again. The server that was shut down because of a thermal anomaly on the server has become operational again.	2.50
cpqHePostError = 6013	Minor	N/A	N/A	One or more POST errors occurred. Power-On Self-Test (POST) errors occur during the server restart process.	2.50
CpqHeFltTolPwrSupply Degraded = 6014	Critical	N/A	N/A	The fault-tolerant power supply subsystem condition has been set to degraded. .	2.50
cpqHe3Correctable MemoryError = 6015	Minor	N/A	N/A	A correctable memory error occurred. The error has been corrected. The current number of correctable memory errors is reported in the variable cpqHeCorrMemTotalErrs.	2.60
cpqHe3Correctable MemoryLogDisabled = 6016	Critical	1072	Warning	Correctable memory error tracking disabled. The frequency of errors is so high that the error tracking logic has been temporarily disabled. The cpqHeCorrMemLogStatus variable indicated the current tracking status.	Current
cpqHe3ThermalTemp Failed = 6017	Critical	1082	Error	The temperature status has been set to failed. The system will be shut down because of this thermal condition.	Current
cpqHe3ThermalTemp Degraded = 6018	Critical	1083	Warning	The temperature status has been set to degraded. The server temperature is outside of the normal operating range. The server will be shut down if the cpqHeThermalDegradedAction variable is set to shutdown (3).	Current
cpqHe3ThermalTemp Ok = 6019	Informational	1084	Information	The temperature status has been set to OK. The server temperature has returned to the normal operating range.	Current

Table 15 Health MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqHe3ThermalSystem FanFailed = 6020	Critical	1085	Error	The system fan status has been set to failed. A required system fan is not operating normally. The system will be shut down if the cpqHeThermalDegradedAction variable is set to shutdown (3).	Current
cpqHe3ThermalSystem FanDegraded = 6021	Critical	1086	Warning	The system fan status has been set to degraded. An optional system fan is not operating normally.	Current
cpqHe3ThermalSystem FanOk = 6022	Informational	1087	Information	The system fan status has been set to OK. Any previously nonoperational system fans have returned to normal operation.	Current
cpqHe3ThermalCpuFan Failed = 6023	Critical	1088	Error	The CPU fan status has been set to failed. A processor fan is not operating normally. The server will be shut down.	Current
cpqHe3ThermalCpu FanOk = 6024	Informational	1089	Information	The CPU fan status has been set to OK. Any previously nonoperational processor fans have returned to normal operation.	Current
cpqHe3Asr Confirmation = 6025	Minor	1090	Information	The server is operational again. The server that was shut down by the HP ASR feature has become operational again.	Current
cpqHe3Thermal Confirmation = 6026	Minor	1091	Information	The server is operational again. The server that was shut down due to a thermal anomaly on the server has become operational again.	Current
cpqHe3PostError = 6027	Minor	1092	Warning	One or more POST errors occurred. POST errors occur during the server restart process.	Current
cpqHe3FltTolPwrSupply Degraded = 6028	Critical	1103	Warning	The fault-tolerant power supply subsystem condition has been set to degraded.	Current
cpqHe3CorrMemReplac e MemModule = 6029	Minor	1071	Warning	A correctable memory log entry indicates a memory module must be replaced. The errors have been corrected, but the memory module should be replaced. The error information is reported in the variable cpqHeCorrMemErrDesc.	6.10
cpqHe3FltTolPower SupplyDegraded = 6030	Critical	1124	Warning	The fault-tolerant power supply condition has been set to degraded for the specified chassis and bay location.	5.00
cpqHe3FltTolPower SupplyFailed = 6031	Critical	1125	Error	The fault-tolerant power supply condition has been set to failed for the specified chassis and bay location.	5.00
cpqHe3FltTolPower RedundancyLost = 6032	Critical	1126	Warning	The fault-tolerant power supplies have lost redundancy for the specified chassis.	Current
cpqHe3FltTolPower SupplyInserted = 6033	Critical	1127	Information	A fault-tolerant power supply has been inserted into the specified chassis and bay location.	Current
cpqHe3FltTolPower SupplyRemoved = 6034	Critical	1128	Warning	A fault-tolerant power supply has been removed from the specified chassis and bay location.	Current
cpqHe3FltTolFan Degraded = 6035	Critical	1129	Warning	The fault-tolerant fan condition has been set to degraded for the specified chassis and fan.	Current
cpqHe3FltTolFan Failed = 6036	Critical	1130	Error	The fault-tolerant fan condition has been set to failed for the specified chassis and fan.	Current
cpqHe3FltTolFan RedundancyLost = 6037	Critical	1131	Warning	The fault-tolerant fans have lost redundancy for the specified chassis.	Current
cpqHe3FltTolFan Inserted = 6038	Critical	1132	Information	A fault-tolerant fan has been inserted into the specified chassis and fan location.	Current

Table 15 Health MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqHe3FltTolFan Removed = 6039	Critical	1133	Warning	A fault-tolerant fan has been removed from the specified chassis and fan location.	Current
cpqHe3Temperature Failed = 6040	Critical	1134	Error	The temperature status has been set to failed in the specified chassis and location. The system will be shut down because of this condition.	Current
cpqHe3Temperature Degraded = 6041	Critical	1135	Warning	The temperature status has been set to degraded in the specified chassis and location. The server temperature is outside of the normal operating range. The server will be shut down if the cpqHeThermalDegradedAction variable is set to shutdown (3).	Current
cpqHe3Temperature Ok = 6042	Informational	1136	Information	The temperature status has been set to OK in the specified chassis and location. The server temperature has returned to the normal operating range.	Current
cpqHe3PowerConverter Degraded = 6043	Critical	1137	Warning	The DC-DC power converter condition has been set to degraded for the specified chassis, slot, and socket.	Current
cpqHe3PowerConverter Failed = 6044	Critical	1138	Error	The DC-DC power converter condition has been set to failed for the specified chassis, slot, and socket.	Current
cpqHe3PowerConverter RedundancyLost = 6045	Critical	1139	Warning	The DC-DC power converters have lost redundancy for the specified chassis.	Current
cpqHe3CacheAccel ParityError = 6046	Critical	1024	Error	A cache accelerator parity error indicates a cache module must be replaced. The error information is reported in the variable cpqHeEventLogErrorDesc.	Current
CpqHeResilientMem OnlineSpare Engaged = 6047	Major	1025	Warning	The Advanced Memory Protection subsystem has detected a memory fault. The Online Spare Memory has been activated. User action: Schedule server downtime to replace the faulty memory.	Current
cpqHe4FltTolPower SupplyOk = 6048	Informational	1118	Information	The fault-tolerant power supply condition has been set back to the OK state for the specified chassis and bay location.	Current
cpqHe4FltTolPower SupplyDegraded = 6049	Critical	1124	Warning	The fault-tolerant power supply condition has been set to degraded for the specified chassis and bay location.	Current
cpqHe4FltTolPower SupplyFailed = 6050	Critical	1125	Error	The fault-tolerant power supply condition has been set to failed for the specified chassis and bay location.	Current
CpqHeResilientMem MirroredMemory Engaged = 6051	Major	1026	Warning	The Advanced Memory Protection subsystem has detected a memory fault. Mirrored Memory has been activated. User action: Replace the faulty memory.	Current
CpqHeResilient AdvancedECCMemory Engaged = 6052	Major	1027	Warning	The Advanced Memory Protection subsystem has detected a memory fault. Advanced ECC has been activated. User action: Replace the faulty memory.	Current
CpqHeResilientMemXor MemoryEngaged = 6053	Major	1028	Warning	The Advanced Memory Protection subsystem has detected a memory fault. The XOR engine has been activated. User action: Replace the faulty memory.	Current

Table 15 Health MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqHe3FltTolPower Redundancy Restored = 6054	Informational	1029	Information	The fault-tolerant power supplies have returned to a redundant state for the specified chassis.	Current
cpqHe3FltTolFan Redundancy Restored = 6055	Informational	1030	Information	The fault-tolerant fans have returned to a redundant state for the specified chassis.	Current
cpqHe4CorrMem ReplaceMem Module = 6056	Minor	1031	Warning	Corrected Memory Errors Detected. The errors have been corrected, but the memory module should be replaced.	Current
CpqHeResMemBoard Removed = 6057	Informational	1032	Information	An Advanced Memory Protection subsystem board or cartridge has been removed from the system. User action: Be sure the board or cartridge has memory correctly installed and re-insert the memory board or cartridge back into the system.	Current
CpqHeResMemBoard Inserted = 6058	Informational	1033	Information	An Advanced Memory Protection subsystem board or cartridge has been inserted into the system. User action: None.	Current
cpqHeResMemBoardBus Error = 6059	Critical	N/A	N/A	An Advanced Memory Protection sub-system board or cartridge bus error has been detected. User action: Replace the indicated board or cartridge	Current

Storage system MIB trap definitions

The following table lists the storage system MIB trap definitions.

Table 16 Storage system MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqSs2FanStatus Change = 8001	Critical	N/A	N/A	Storage System fan status change. The Insight Agent has detected a change in the Fan Status of an HP storage system. The variable cpqSsBoxFanStatus indicates the current fan status.	2.50
CpqSsTemp Failed = 8002	Critical	N/A	N/A	Storage System temperature failure. The Insight Agent has detected that a temperature status has been set to failed. The storage system will be shut down.	2.50
CpqSsTemp Degraded = 8003	Major	N/A	N/A	Storage System temperature degraded. The Insight Agent has detected a temperature status that has been set to degraded. The storage system's temperature is outside the normal operating range.	2.50
cpqSsTempOk = 8004	Informational	N/A	N/A	Storage System temperature OK. The temperature status has been set to OK. The storage system's temperature has returned to normal operating range. It can be reactivated by the administrator.	2.50
CpqSsSidePanelIn Place = 8005	Informational	N/A	N/A	Storage System side panel is in place. The side panel status has been set to in place. The storage system's side panel has returned to a properly installed state.	2.50

Table 16 Storage system MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqSsSidePanel Removed = 8006	Major	N/A	N/A	Storage System side panel is removed. The side panel status has been set to removed. The storage system side panel is not in a properly installed state. This situation might result in improper cooling of the drives in the storage system because of airflow changes caused by the missing side panel.	2.50
CpqSsPwrSupply Degraded = 8007	Critical	N/A	N/A	A storage system power supply status has been set to degraded.	2.50
cpqSs3FanStatus Change = 8008	Critical	1075	Warning	Storage System fan status change. The Insight Agent has detected a change in the Fan Status of an HP storage system. The variable cpqSsBoxFanStatus indicates the current fan status. User action: If the fan status is degraded or failed, replace any failed fans.	6.30
cpqSs3Temp Failed = 8009	Critical	1076	Error	Storage System temperature failure. The Insight Agent has detected that a temperature status has been set to failed. The storage system will be shut down. User action: Shut down the storage system as soon as possible. Ensure that the storage system environment is being cooled properly and that no components are overheated.	6.30
cpqSs3Temp Degraded = 8010	Major	1077	Warning	Storage System temperature degraded. The Insight Agent has detected a temperature status that has been set to degraded. The storage system temperature is outside the normal operating range. User action: Shut down the storage system as soon as possible. Ensure that the storage system environment is being cooled properly and that no components are overheated.	6.30
cpqSs3TempOk = 8011	Informational	1078	Information	Storage System temperature OK. The temperature status has been set to OK. The storage system temperature has returned to normal operating range. It can be reactivated by the administrator. User action: None.	6.30
cpqSs3SidePanelIn Place = 8012	Informational	1102	Information	Storage System side panel is in place. The side panel status has been set to in place. The storage system side panel has returned to a properly installed state. User action: None.	Current
cpqSs3SidePanel Removed = 8013	Major	1101	Warning	Storage System side panel is removed. The side panel status has been set to removed. The storage system side panel is not in a properly installed state. This situation might result in improper cooling of the drives in the storage system because of airflow changes caused by the missing side panel. User action: Replace the storage system side panel.	Current
cpqSs3PwrSupply Degraded = 8014	Critical	N/A	N/A	A storage system power supply status has been set to degraded.	3.10

Table 16 Storage system MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqSs4PwrSupply Degraded = 8015	Critical	1104	Warning	A storage system power supply status has been set to degraded. User action: Restore power or replace any failed storage system power supply.	Current
CpqSsExFanStatus Change = 8016	Critical	N/A	N/A	Storage system fan status change. The Insight Agent has detected a change in the Fan Module Status of an HP storage system. The variable cpqSsFanModuleStatus indicates the current fan status. User action: If the fan status is degraded or failed, replace any failed fans.	4.70
CpqSsExPowerSupply StatusChange = 8017	Critical	N/A	N/A	Storage system power-supply status change. The Insight Agent has detected a change in the power-supply status of an HP storage system. The variable cpqSsPowerSupplyStatus indicates the current status. User action: If the power-supply status is failed, take action to restore power or replace the failed power supply.	4.70
CpqSsExPowerSupply UpsStatus Change = 8018	Critical	1154	Warning	Storage system power-supply UPS status change. The Insight Agent has detected a change status of a UPS attached to an HP storage system power supply. The variable cpqSsPowerSupplyUpsStatus indicates the current status. User action: If the UPS status is powerFailed (4) or batteryLow (5), take action to restore power to the UPS.	Current
CpqSsExTempSensor StatusChange = 8019	Critical	1155	Warning	Storage system temperature sensor status change. The Insight Agent has detected a change in the status of an HP storage system temperature sensor. The variable cpqSsTempSensorStatus indicates the current status. User action: If the temperature status is degraded or failed, shut down the storage system as soon as possible. Ensure that the storage system environment is being cooled properly and that no components are overheated.	Current
cpqSsEx2FanStatus Change = 8020	Critical	1152	Warning	The agent has detected a change in the fan module status of a storage system. The variable cpqSsFanModuleStatus indicates the current fan status. User action: If the fan status is degraded or failed, replace any failed fans.	Current
cpqSsEx2PowerSupply StatusChange = 8021	Critical	1153	Warning	The agent has detected a change in the power supply status of a storage system. The variable cpqSsPowerSupplyStatus indicates the current status. User action: If the power supply status is failed, take action to restore power or replace the failed power supply.	Current
CpqSsExBackplaneFan StatusChange = 8022	Critical	1188	Warning	The agent has detected a change in the fan status of a storage system. The variable cpqSsBackplaneFanStatus indicates the current fan status. User action: If the fan status is degraded or failed, replace any failed fans.	Current

Table 16 Storage system MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqSsExBackplane TempStatus Change = 8023	Critical	1189	Warning	The agent has detected a change in the status of the temperature in a storage system. The variable cpqSsBackplaneTempStatus indicates the current status. User action: If the temperature status is degraded or failed, shutdown the storage system as soon as possible. Be sure that the storage system environment is being cooled properly and that no components are overheated.	Current
CpqSsExBackplane PowerSupplyStatus Change = 8024	Critical	1190	Warning	The agent has detected a change in the power supply status of a storage system. The variable cpqSsBackplaneFtpsStatus indicates the current status. User action: If the power supply status is degraded, take action to restore power or replace the failed power supply.	Current
cpqSsExRecoveryServer StatusChange = 8025	Major	1196	Warning	The agent has detected a change in the recovery server option status of a storage system. The variable cpqSsChassisRsoStatus indicates the current status. User action: If the RSO status is noSecondary (6) or linkDown (7), be sure the secondary server is operational and all cables are connected properly. If the RSO status is secondaryRunningAuto (8) or secondaryRunningUser (9), examine the primary server for failed components.	Current
cpqSs5FanStatus Change = 8026	Critical	1212	Warning	The agent has detected a change in the Fan Status of a storage system. The variable cpqSsBoxFanStatus indicates the current fan status. User action: If the fan status is degraded or failed, replace any failed fans.	7.30
cpqSs5TempStatus Change = 8027	Critical	1213	Warning	The agent has detected a change in the temperature status of a storage system. The variable cpqSsBoxTempStatus indicates the current temperature status. User action: If the temperature status is degraded or failed, shutdown the storage system as soon as possible. Be sure that the storage system environment is being cooled properly and that no components are overheated.	7.30
cpqSs5PwrSupply StatusChange = 8028	Critical	1214	Warning	The agent has detected a change in the power supply status of a storage system. The variable cpqSsBoxFltTolPwrSupplyStatus indicates the current power supply status. User action: If the power supply status is degraded, take action to restore power or replace the failed power supply.	7.30
cpqSs6FanStatus Change = 8029	Critical	1218	Varies with event severity	The agent has detected a change in the Fan Status of a storage system. The variable cpqSsBoxFanStatus indicates the current fan status. User action: If the fan status is degraded or failed, replace any failed fans.	Current

Table 16 Storage system MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqSs6TempStatus Change = 8030	Critical	N/A	Varies with event severity	The agent has detected a change in the temperature status of a storage system. The variable cpqSsBoxTempStatus indicates the current temperature status. User action: If the temperature status is degraded or failed, shutdown the storage system as soon as possible. Be sure that the storage system environment is being cooled properly and that no components are overheated.	Current
cpqSs6PwrSupply StatusChange = 8031	Critical	N/A	Varies with event severity	The agent has detected a change in the power supply status of a storage system. The variable cpqSsBoxFltTolPwrSupplyStatus indicates the current power supply status. User action: If the power supply status is degraded, take action to restore power or replace the failed power supply.	Current

Threshold management MIB trap definitions

The following table lists the threshold management MIB trap definitions.

Table 17 Threshold management MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqMeRising Alarm = 10001	Critical	N/A	N/A	Rising Threshold passed. An alarm entry has crossed its rising threshold. The instances of those objects contained within the variable list are those of the alarm entry that generated this trap.	2.50
CpqMeFalling Alarm = 10002	Critical	N/A	N/A	Falling Threshold passed. An alarm entry has crossed its falling threshold. The instances of those objects contained within the variable list are those of the alarm entry that generated this trap.	2.50
cpqMe2Rising Alarm = 10003	Critical	N/A	N/A	Rising Threshold passed. An alarm entry has crossed its rising threshold. The instances of those objects contained within the variable list are those of the alarm entry that generated this trap.	3.90
cpqMe2Falling Alarm = 10004	Critical	N/A	N/A	Falling Threshold passed. An alarm entry has crossed its falling threshold. The instances of those objects contained within the variable list are those of the alarm entry that generated this trap.	3.90
CpqMeRisingAlarm Extended = 10005	Critical	1162	Warning	Rising Threshold passed. An alarm entry has crossed its rising threshold. The instances of those objects contained within the variable list are those of the alarm entry that generated this trap.	Current
CpqMeFallingAlarm Extended = 10006	Critical	1163	Warning	Falling Threshold passed. An alarm entry has crossed its falling threshold. The instances of those objects contained within the variable list are those of the alarm entry that generated this trap.	Current
cpqMeCriticalRisingAlarmExtended = 10007	Critical	1164	Warning	An alarm entry has crossed its Critical rising threshold. The instances of those objects contained within the variable list are those of the alarm entry which generated this trap	Current
cpqMeCriticalFallingAlarmExtended = 10008	Critical	N/A	Warning	An alarm entry has crossed its Critical falling threshold. The instances of those objects contained within the variable list are those of the alarm entry which generated this trap	Current

Host MIB trap definitions

The following table lists the host MIB trap definitions.

Table 18 Host MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqHoGeneric Trap = 11001	Major	N/A	N/A	This trap is a generic trap and left undefined.	2.50
CpqHoAppError Trap = 11002	Major	N/A	N/A	An application has generated an exception. Specific error information is contained in the variable cpqHoSwPerfAppErrorDesc.	2.50
cpqHo2Generic Trap = 11003	Major	1105	Information	This trap is a generic trap and left undefined.	Current
cpqHo2AppError Trap = 11004	Major	1106	Information	An application has generated an exception. Specific error information is contained in the variable cpqHoSwPerfAppErrorDesc.	Current
cpqHo2NicStatus Ok = 11005	Major	N/A	N/A	This trap will be sent any time the status of a NIC changes to the OK condition.	Retired—Unknown

Table 18 Host MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqHo2NicStatus Failed = 11006	Major	N/A	N/A	This trap will be sent any time the status of a NIC changes to the Failed condition.	Retired—Unknown
cpqHo2NicSwitchover Occurred = 11007	Major	N/A	N/A	This trap will be sent any time the configured redundant NIC becomes the active NIC.	Retired—Unknown
cpqHo2NicStatus Ok2 = 11008	Major	N/A	N/A	This trap will be sent any time the status of a NIC changes to the OK condition.	4.10
cpqHo2NicStatus Failed2 = 11009	Major	N/A	N/A	This trap will be sent any time the status of a NIC changes to the Failed condition.	4.10
cpqHo2NicSwitchover Occurred2 = 11010	Major	N/A	N/A	This trap will be sent any time the configured redundant NIC becomes the active NIC.	4.10
CpqHoProcessEvent Trap = 11011	Major	1166	Warning	A monitored process has either started or stopped running.	Current
CpqHoProcessCount Warning = 11012	Major	N/A	N/A	A monitored process count has violated the thresholds set on cpqHoSWRunningCount.	Current
CpqHoProcessCount Normal = 11013	Informational	N/A	N/A	A monitored process count has returned back to normal.	Current
cpqHoCriticalSoftwareUpdateTrap = 11014	Critical	1181	Error	This trap is a send to notify the user of a Critical Software Update.	Current

UPS MIB trap definitions

The following table lists the UPS MIB trap definitions.

Table 19 UPS MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqUpsLineOk = 12002	Informational	N/A	N/A	AC line power OK. The UPS reports that the AC line power has returned.	N/A
CpqUps Shutdown = 12003	Critical	N/A	N/A	UPS initiating graceful server shutdown. The UPS software is initiating a graceful server shutdown. Every attempt to preserve the state of the file system will be made. The server shutdown will be initiated because of a power anomaly.	N/A
CpqUps Confirmation = 12004	Informational	N/A	N/A	Server now operational after powerdown. This server has previously been shut down because of a power anomaly and has just become operational again.	N/A
CpqUpsBattery Low = 12005	Critical	N/A	N/A	UPS Battery Low. The server will soon lose power.	N/A
cpqUps2Line Failed = 12006	Critical	N/A	N/A	AC Line power failure. The UPS reports that the AC line power has failed.	N/A
cpqUps2Line Ok = 12007	Informational	N/A	N/A	AC line power OK. The UPS reports that the AC line power has returned.	N/A
cpqUps2 Shutdown = 12008	Critical	N/A	N/A	UPS initiating graceful server shutdown. The UPS software is initiating a graceful server shutdown. Every attempt to preserve the state of the file system will be made. The server shutdown will be initiated because of a power anomaly.	N/A

Table 19 UPS MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqUps2 Confirmation = 12009	Informational	N/A	N/A	Server is now operational after powerdown. This server has previously been shut down because of a power anomaly and has just become operational again.	N/A
cpqUps2Battery Low = 12010	Critical	N/A	N/A	UPS Battery Low. The server will soon lose power.	N/A
CpqUps Overload = 12011	Critical	N/A	N/A	The UPS has entered an overload condition. A failure might occur unless the overload is corrected.	N/A
CpqUpsPendingBattery Failure = 12012	Critical	N/A	N/A	The UPS battery is about to fail. Replace as soon as possible.	N/A
CpqUpsGeneric Critical = 12013	Critical	N/A	N/A	Generic UPS critical alarm.	N/A
CpqUpsGeneric Info = 12014	Informational	N/A	N/A	Generic UPS informational alarm.	N/A

Recovery server MIB trap definitions

The following table lists the recovery server MIB trap definitions.

Table 20 Recovery server MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqRsPartner Failed = 13001	Critical	N/A	N/A	Recovery Server partner server failure. The Recovery Agent reports that the partner server has failed. This server has taken over the partner operations.	Current
CpqRsStandbyCable Failure = 13002	Critical	N/A	N/A	Recovery Server serial interconnect failure. The Standby Recovery Agent reports that the local serial interconnect is not connected or has failed. The primary server is being shut down in anticipation of the startup of the standby server.	Current
CpqRsStandby Failure = 13003	Critical	N/A	N/A	Recovery Server standby server failure. The Recovery Agent reports that the standby server has failed or the standby server's serial interconnect is not connected.	Current
CpqRsOnlineCable Failure = 13004	Critical	N/A	N/A	On-Line Recovery Server serial interconnect failure. The On-Line Recovery Agent reports that the local serial interconnect is not connected or has failed. However, network operations confirm that the partner is still operating correctly.	Current
CpqRsFailover Failed = 13005	Critical	N/A	N/A	On-Line Recovery Server failover failure. The On-Line Recovery Agent reports that an attempt to take on the operations of the partner server was attempted and failed.	Current

IDE MIB trap definitions

The following table lists the IDE MIB trap definitions.

Table 21 IDE MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqIdeDriveDegraded = 14001	Critical	1121	Warning	An IDE drive status has been set to degraded. User action: The drive should be scheduled for replacement. Refer to the appropriate maintenance and service guide for detailed information on a component replacement.	Current
cpqIdeDriveOk = 14002	Informational	1122	Information	An IDE drive status has been set to OK. User action: None.	Current
cpqIdeDriveUltraAtaDegraded = 14003	Informational	N/A	N/A	An IDE drive detects an excessive number of Ultra ATA data transmission errors between the hard drive and the processor. User action: For best performance move Ultra ATA devices to the primary controller and non-Ultra ATA devices to the secondary controller. If errors persist, consider replacing the standard 40-conductor IDE cable with an 80-conductor Ultra ATA cable.	Current
cpqIdeAtaDiskStatusChange = 14004	Critical	1186	Warning	This trap signifies that the agent has detected a change in the status of an ATA disk drive. The variable cpqIdeAtaDiskStatus indicates the current disk drive status. User action: If the physical drive status is smartError (3) or failed (4), replace the drive.	Current
cpqIdeLogicalDriveStatusChange = 14005	Critical	1187	Warning	This trap signifies that the agent has detected a change in the status of an IDE logical drive. The variable cpqIdeLogicalDriveStatus indicates the current logical drive status. User action: If the logical drive status is failed (5), examine the array for failed drives that need replacement.	Current

Cluster MIB trap definitions

The following table lists the cluster MIB trap definitions.

Table 22 Cluster MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqCluster Degraded = 15001	Major	N/A	N/A	This trap will be sent any time the condition of the cluster becomes degraded.	4.10
CpqCluster Failed = 15002	Major	N/A	N/A	This trap will be sent any time the condition of the cluster becomes failed.	4.10
CpqClusterNode Degraded = 15003	Major	1171	Warning	This trap will be sent any time the condition of a node in the cluster becomes degraded. User action: Make a note of the cluster node name, then check the node for the cause of the degraded condition.	Current
CpqClusterNode Failed = 15004	Major	1172	Error	This trap will be sent any time the condition of a node in the cluster becomes failed. User action: Make a note of the cluster node name, then check the node for the cause of the failure.	Current

Fibre channel array MIB trap definitions

The following table lists the fibre channel array MIB trap definitions.

Table 23 Fibre channel array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqFcaLogDrvStatus Change = 16001	Critical	1145	Error	Logical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Fibre Channel Array logical drive. The variable cpqFcaLogDrvStatus indicates the current logical drive status. User action: If the logical drive status is failed, examine the array for failed drives that need replacement.	Current
CpqFcaSpareStatus Change = 16002	Critical	1147	Error	Spare Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Fibre Channel Array spare drive. The variable cpqFcaSpareStatus indicates the current spare drive status. The variable cpqFcaSpareBusNumber indicates the SCSI bus number associated with this drive. User action: If the spare drive status is failed, replace the drive.	Current
CpqFcaPhyDrvStatus Change = 16003	Critical	N/A	N/A	Physical Drive Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Drive Array physical drive. The variable cpaDaPhyDrvStatus indicates the current physical drive status. The variable cpqDaPhyDrvBusNumber indicates the SCSI bus number associated with this drive. User action: If the physical drive status is threshExceeded (4), predictiveFailure (5), or failed (6), replace the drive. XE "physical drives, trap definitions:Fibre Channel"	4.70
CpqFcaAccelStatus Change = 16004	Critical	N/A	N/A	Accelerator Board Status Change. This trap signifies that the Insight Agent has detected a change in the cpqFcaAccelStatus of an HP Array Accelerator Cache Board. The current status is represented by the variable cpqFcaAccelStatus. User action: None.	4.70
CpqFcaAccelBadData Trap = 16005	Critical	N/A	N/A	Accelerator Board Bad Data. This trap signifies that the Insight Agent has detected an HP Array Accelerator Cache Board that has lost battery power. If data was being stored in the accelerator memory when the server lost power, that data has been lost. User action: Verify that no data has been lost.	4.70
CpqFcaAccelBattery Failed = 16006	Critical	N/A	N/A	Accelerator Board Battery Failed. This trap signifies that the Insight Agent has detected a battery failure associated with the HP Array Accelerator Cache Board. User action: Replace the Accelerator Cache Board.	4.70

Table 23 Fibre channel array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqFcaCntlrStatus Change = 16007	Critical	N/A	N/A	Array Controller Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Fibre Channel Array Controller. The variable cpqFcaCntlrStatus indicates the current controller status. User action: If the controller status is offline, access to the storage box has been lost. Check the storage box and all Fibre Channel connections for problems.	4.70
CpqFcTapeCntlrStatus Change = 16008	Critical	1173	Warning	Tape Controller Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Fibre Channel Tape controller. The variable cpqFcTapeCntlrStatus indicates the current tape controller status. The variable cpqFcTapeCntlrWWN indicates the unique tape controller worldwide name associated with this controller. User action: If the tape controller status is offline, access to the tape library and tapes has been lost. Check the tape library and all Fibre Channel connections for problems.	Current
CpqFcTapeLibrary StatusChange = 16009	Critical	1174	Warning	Tape Library Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Fibre Channel Tape library. The variable cpqFcTapeLibraryStatus indicates the current tape library status. The variable cpqFcTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library is failed, check the tape library front panel or all Fibre Channel connections.	5.40
CpqFcTapeLibraryDoor StatusChange = 16010	Critical	1175	Warning	Tape Library Door Status Change. This trap signifies that the Insight Agent has detected a change in the door status of an HP Fibre Channel Tape library. The variable cpqFcTapeLibraryDoorStatus indicates the current tape library door status. The variable cpqFcTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library door is open, close the tape library door.	5.40
CpqFcTapeDriveStatus Change = 16011	Critical	1176	Warning	Tape Library Door Status Change. This trap signifies that the Insight Agent has detected a change in the door status of an HP Fibre Channel Tape library. The variable cpqFcTapeLibraryDoorStatus indicates the current tape library door status. The variable cpqFcTapeLibraryScsiTarget indicates the SCSI ID of the tape library. User action: If the tape library door is open, close the tape library door.	5.30
CpqFcTapeDrive Cleaning Required = 16012	Major	1177	Warning	Tape Drive Cleaning Required trap. The Insight Agent has detected a tape drive that must have a cleaning tape inserted and run. This cleans the tape drive heads.	5.30

Table 23 Fibre channel array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqFcTapeDriveClean TapeReplace = 16013	Major	1178	Warning	Tape Drive Cleaning Tape Needs Replacing. The Insight Agent has detected that an autoloader tape unit has a cleaning tape that has been fully used and therefore must be replaced with a new cleaning tape.	5.30
CpqFcaCntlr Active = 16014	Informational	1179	Warning	Fibre Array Controller Active. This trap signifies that the Storage Agent has detected that a backup array controller in a duplexed pair has switched over to the active role. The variable cpqFcaCntlrBoxIoSlot indicates the new active controller index. User action: Check the partner controller for problems. If this was the result of a user-initiated switch over, no action is required.	Current
CpqFcaHostCntlr StatusChange = 16015	Critical			Fibre Channel Host Controller Status Change. This trap signifies that the Insight Agent has detected a change in the status of an HP Fibre Channel Host Controller. The variable cpqFcaHostCntlrStatus indicates the current controller status. User action: If the controller status is failed, replace the controller.	4.70
cpqFca2PhyDrvStatus Change = 16016	Critical	1146	Error	This trap signifies that the agent has detected a change in the status of a physical drive. The variable cpaFcaPhyDrvStatus indicates the current physical drive status. User action: If the physical drive status is threshExceeded (4), predictiveFailure (5) or failed (6), replace the drive.	Current
cpqFca2AccelStatus Change = 16017	Critical	1148	Error	This trap signifies that the agent has detected a change in the status of a Array Accelerator Cache Board. The current status is represented by the variable cpqFcaAccelStatus. User action: If the accelerator board status is permDisabled (5), you might need to replace the accelerator board.	Current
cpqFca2AccelBadData Trap = 16018	Critical	1149	Error	This trap signifies that the agent has detected a Array Accelerator Cache Board that has lost battery power. If data was being stored in the accelerator memory when the system lost power, that data has been lost. User action: Verify that no data has been lost.	Current
cpqFca2AccelBattery Failed = 16019	Critical	1150	Error	This trap signifies that the agent has detected a battery failure associated with the Array Accelerator Cache Board. User action: Replace the Accelerator Cache Board.	Current
cpqFca2CntlrStatus Change = 16020	Critical	1151	Error	This trap signifies that the agent has detected a change in the status of a External Array Controller. The variable cpqFcaCntlrStatus indicates the current controller status. User action: If the controller status is offline (4), access to the storage box has been lost. Check the storage box and all fibre channel connections for problems.	Current

Table 23 Fibre channel array MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqFca2HostCntlrStatus Change = 16021	Critical	1185	Warning	This trap signifies that the agent has detected a change in the status of a Fibre Channel Host Controller. The variable cpqFcaHostCntlrStatus indicates the current controller status. User action: If the controller status is failed, replace the controller.	6.40
CpqExtTapeLibraryDoor StatusChange = 16027	Critical	1198	Warning	This trap signifies that the agent has detected a change in the door status of an External Tape library. The variable cpqFcTapeLibraryDoorStatus indicates the current tape library door status. User action: If the tape library door is open, close the tape library door.	Current
cpqFca3HostCntlrStatus Change = 16028	Critical	1215	Warning	This trap signifies that the agent has detected a change in the status of a Fibre Channel Host Controller. The variable cpqFcaHostCntlrStatus indicates the current controller status. User action: If the controller status is failed, replace the controller.	Current

NIC MIB trap definitions

The following table lists the NIC MIB trap definitions.

Table 24 NIC MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqNicConnectivityRestored = 18001	Informational	1280	Information	This trap will be sent any time connectivity is restored to a logical adapter. This occurs when the physical adapter in a single adapter configuration returns to the OK condition or at least one physical adapter in a logical adapter group returns to the OK condition. This can be caused by replacement of a faulty cable or reattaching a cable that was unplugged. User action: None required.	5.20
cpqNicConnectivityLost = 18002	Major	1281	Error	This trap will be sent any time the status of a logical adapter changes to the Failed condition. This occurs when the adapter in a single adapter configuration fails or when the last adapter in a redundant configuration fails. This can be caused by loss of link because of a cable being removed from the adapter or the hub or switch. Internal adapter, hub, or switch failures can also cause this condition. User action: Check the cables to the adapter and the hub or switch. If no cable problems are found, the adapter, hub, or switch might need replacement.	5.20

Table 24 NIC MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqNicRedundancyIncreased = 18003	Informational	1282	Information	This trap will be sent any time a previously failed physical adapter in a connected logical adapter group returns to the OK condition. This trap is not sent when a logical adapter group has connectivity restored from a failed condition. The cpqNicConnectivityRestored trap is sent instead. This can be caused by replacement of a faulty cable or reattaching a cable that was unplugged. User action: None required.	5.20
CpqNicRedundancyReduced:= 18004	Major	1283	Error	This trap will be sent any time a physical adapter in a logical adapter group changes to the failed condition but at least one physical adapter remains in the OK condition. This can be caused by loss of link because of a cable being removed from the adapter or the hub or switch. Internal adapter, hub, or switch failures can also cause this condition. User action: Check the cables to the adapter and the hub or switch. If no cable problems are found, the adapter, hub, or switch might need replacement.	5.20
cpqNic2ConnectivityRestored = 18005	Informational	1284	Information	This trap will be sent any time connectivity is restored to a logical adapter. This occurs when the physical adapter in a single adapter configuration returns to the OK condition or at least one physical adapter in a logical adapter group returns to the OK condition. This can be caused by replacement of a faulty cable or re-attaching a cable that was unplugged. User action: None required.	Current
cpqNic2ConnectivityLost = 18006	Major	1285	Error	This trap will be sent any time the status of a logical adapter changes to the Failed condition. This occurs when the adapter in a single adapter configuration fails, or when the last adapter in a redundant configuration fails. This can be caused by loss of link due to a cable being removed from the adapter or the hub or Switch. Internal adapter, hub, or switch failures can also cause this condition. User action: Check the cables to the adapter and the hub or switch. If no cable problems are found, the adapter, hub, or switch might need replacement.	Current
cpqNic2RedundancyIncreased = 18007	Informational	1286	Information	This trap will be sent any time a previously failed physical adapter in a connected logical adapter group returns to the OK condition. This trap is not sent when a logical adapter group has connectivity restored from a Failed condition. The cpqNicConnectivityRestored trap is sent instead. This can be caused by replacement of a faulty cable or re-attaching a cable that was unplugged. User action: None required.	Current

Table 24 NIC MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
cpqNic2RedundancyReduced = 18008	Major	1287	Error	This trap will be sent any time a physical adapter in a logical adapter group changes to the Failed condition, but at least one physical adapter remains in the OK condition. This can be caused by loss of link due to a cable being removed from the adapter or the hub or switch. Internal adapter, hub, or switch failures can also cause this condition. User action: Check the cables to the adapter and the hub or switch. If no cable problems are found, the adapter, hub, or switch might need replacement.	Current
cpqNicVirusLikeActivityDetected = 18009	Major	N/A	N/A	This trap will be sent when the Virus Throttle Filter Driver detects virus like activity. User action: The system reporting this trap requires immediate attention.	Current
cpqNicVirusLikeActivityStopped = 18010	Informational	N/A	N/A	This trap will be sent when the Virus Throttle Filter Driver no longer detects virus like activity. User action: None required	Current

Windows OS MIB trap definitions

The following table lists the Windows OS MIB trap definitions.

Table 25 Windows OS MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqOsCpuTimeDegraded = 19001	Critical	1173	Warning	The Processor Time performance property is set to degraded.	Current
CpqOsCpuTimeFailed = 19002	Critical	1174	Error	The Processor Time performance property is set to critical.	Current
CpqOsCacheCopyReadHitsDegraded = 19003	Critical	1175	Warning	The Cache CopyReadHits performance property is set to degraded.	Current
CpqOsCacheCopyReadHitsFailed = 19004	Critical	1176	Error	The Cache CopyReadHits performance property is set to critical.	Current
CpqOsPageFileUsageDegraded = 19005	Critical	1177	Warning	The PagingFile Usage performance property is set to degraded.	Current
CpqOsPageFileUsageFailed = 19006	Critical	1178	Error	The PagingFile Usage performance property is set to critical.	Current
CpqOsLogicalDiskBusyTimeDegraded = 19007	Critical	1179	Warning	The LogicalDisk BusyTime performance property is set to degraded.	Current
CpqOsLogicalDiskBusyTimeFailed = 19008	Critical	1180	Error	The LogicalDisk BusyTime performance property is set to critical.	Current

Rack MIB trap definitions

The following table lists the rack MIB trap definitions.

Table 26 Rack MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version

Table 26 Rack MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqRackName Changed = 22001	Informational	1143	Information	This trap signifies that an agent or utility has changed the name of the rack. Each of the server blades in each of the enclosure within the rack will be updated to reflect the new rack name. It might take several minutes for the rack name change to be propagated throughout the entire rack. User action: None.	Current
CpqRackEnclosure NameChanged = 22002	Informational	1144	Information	This trap signifies that an agent or utility has changed the name of an enclosure within the rack. Each of the components within the rack will be updated to reflect the new enclosure name. It might take several minutes for the enclosure name change to be propagated throughout the entire enclosure. User action: None.	Current
CpqRackEnclosure Removed = 22003	Informational	1145	Information	This trap signifies that an enclosure has been removed from the rack. User action: None.	Current
CpqRackEnclosure Inserted = 22004	Informational	1146	Information	This trap signifies that an enclosure has been inserted into the rack. User action: None.	Current
CpqRackEnclosure TempFailed = 22005	Critical	1147	Error	This trap signifies that an enclosure temperature sensor has been tripped indicating an overheat condition. User action: Shutdown the enclosure and possibly the rack as soon as possible. Be sure all fans are working properly and that airflow in the rack has not been blocked.	Current
CpqRackEnclosure TempDegraded = 22006	Major	1148	Warning	This trap signifies that an enclosure temperature sensor has been tripped indicating a possible overheat condition. User action: Shutdown the enclosure and possibly the rack as soon as possible. Be sure all fans are working properly and that airflow in the rack has not been blocked.	Current
CpqRackEnclosure TempOk = 22007	Informational	1149	Information	This trap signifies that an enclosure temperature sensor has returned to normal. User action: None.	Current
CpqRackEnclosureFan Failed = 22008	Critical	1150	Error	This trap signifies that an enclosure fan has failed and no other fans in the redundant fan group are operating. This might result in overheating of the enclosure. User action: Replace the fan as soon as possible.	Current
CpqRackEnclosureFan Degraded = 22009	Major	1151	Warning	This trap signifies that an enclosure fan has failed but other fans in the redundant fan group are still operating. This might result in overheating of the enclosure. User action: Replace the fan as soon as possible.	Current
CpqRackEnclosureFan Ok = 22010	Informational	1152	Information	This trap signifies that an enclosure fan has returned to normal operation. User action: None.	Current
CpqRackEnclosureFan Removed = 22011	Minor	1153	Warning	The enclosure fan has been removed. User action: None.	Current

Table 26 Rack MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqRackEnclosureFan Inserted = 22012	Informational	1154	Information	The enclosure fan has been inserted. User action: None.	Current
CpqRackPowerSupply Failed = 22013	Critical	1155	Error	This trap signifies that a power supply has failed. User action: Replace the power supply as soon as possible.	Current
CpqRackPowerSupply Degraded = 22014	Major	1156	Warning	This trap signifies that a power supply has degraded. User action: Replace the power supply as soon as possible.	Current
CpqRackPowerSupply Ok = 22015	Informational	1157	Information	This trap signifies that a power supply has returned to normal operation. User action: None.	Current
CpqRackPowerSupply Removed = 22016	Minor	1158	Warning	The power supply has been removed. User action: None.	Current
CpqRackPowerSupply Inserted = 22017	Informational	1159	Information	The power supply has been inserted. User action: None.	Current
CpqRackPower SubsystemNot Redundant = 22018	Major	1160	Warning	The rack power subsystem is no longer in a redundant state. User action: Replace any failed power supplies as soon as possible to return the system to a redundant state.	Current
CpqRackPower SubsystemLineVoltage Problem = 22019	Major	1161	Warning	The rack power supply detected an input line voltage problem. User action: Check the power input for the power supply or replace any failed power supplies as soon as possible.	Current
CpqRackPower SubsystemOverload Condition = 22020	Major	1162	Warning	The rack power subsystem overload condition. User action: Replace any failed power supplies as soon as possible to return the system to a redundant state.	Current
CpqRackPowerShed AutoShutdown = 22021	Critical	1163	Error	Server shutdown due to power shedding. The server blade was shut down due to a lack of power. User action: Check power connections or add power supplies.	Current
CpqRackServerPower OnFailedNot Redundant = 22022	Critical	1164	Error	Server power on prevented to preserve redundancy. There is not enough power to power on the server blade and maintain redundancy for the other blades in the enclosure. User action: Check power connections or add power supplies.	Current
CpqRackServerPower OnFailedNotEnough Power = 22023	Critical	1165	Error	Inadequate power to power on. There is not enough power to power on the server blade. User action: Check power connections or add power supplies.	Current
CpqRackServerPower OnFailedEnclosureNot Found = 22024	Critical	1166	Error	Inadequate power to power on. There is not enough power to power on the server blade. The server enclosure micro-controller was not found. User action: Check server enclosure connections or add power supplies.	Current

Table 26 Rack MIB trap definitions

Trap ID	MIB severity	Event ID	Event log severity	Definition	Agent version
CpqRackServerPower OnFailedPowerChassis NotFound = 22025	Critical	1167	Error	Inadequate power to power on. There is not enough power to power on the server blade. The power enclosure micro-controller was not found. User action: Check power enclosure connections or add power supplies.	Current
CpqRackServerPower OnManual Override = 22026	Major	1168	Warning	Server power on by manual override. The server blade was powered on by a manual override. User action: None.	Current
CpqRackFuse Open = 22027	Major	1169	Warning	The fuse has been tripped. User action: Check enclosure and blade power connections and reset the fuse.	Current
CpqRackServerBlade Removed = 22028	Major	1170	Warning	The server blade has been removed from the enclosure. User action: None.	Current
CpqRackServerBlade Inserted = 22029	Major	1171	Information	The server blade has been inserted into the enclosure. User action: None.	Current
CpqRackPower ChassisNotLoad Balanced = 22030	Major	1172	Warning	Power subsystem not load balanced. The power subsystem is out of balance for this power enclosure. User action: Check the power enclosure and power supplies. Replace any failed or degraded power supplies. Add additional power supplies if needed.	Current
CpqRackPower ChassisDcPower Problem = 22031	Major	1173	Warning	Power subsystem DC power problem. There is a power subsystem DC power problem for this power enclosure. User action: Check the power enclosure and power supplies. Replace any failed or degraded power supplies.	Current
CpqRackPower ChassisAcFacilityPowerExceeded = 22032	Major	1174	Warning	Power subsystem AC facility input power exceeded. There is a power subsystem Power subsystem AC facility input power exceeded for this power enclosure. User action: Check the power enclosure and power supplies. Replace any failed or degraded power supplies.	Current
CpqRackPower UnknownPower Consumption = 22033	Major	1175	Warning	There is an unknown power consumer drawing power. User action: Check the power enclosure and power supplies. Replace any failed or degraded power supplies.	Current
CpqRackPowerChassis LoadBalancingWire Missing = 22034	Major	1176	Warning	The power subsystem load balancing wire missing. User action: Connect the load balancing wire.	Current
CpqRackPowerChassis TooManyPower Chassis = 22035	Major	1177	Warning	The maximum number of power enclosures has been exceeded. User action: Remove the extra power enclosure.	Current
cpqRackPowerChassisConfigError = 22036	Major	1178	Warning	The power subsystem has been improperly configured. User action: Check the cabling of the power enclosure.	Current

Common cluster MIB trap definitions Enterprise ID 1.3.6.1.4.1.36

The following table lists the common cluster MIB trap definitions Enterprise ID 1.3.6.1.4.1.36.

Table 27 Common cluster MIB trap definitions Enterprise ID 1.3.6.1.4.1.36

Trap	Definition
svrCluMemberAdded = 100	This trap is generated when a cluster member is added.
svrCluMemberDeleted = 101	This trap is generated when a cluster member is deleted.

Appendix C

Monitored agents

This appendix lists the agents monitored by default under each of the new HP classes defined in the Unicenter CORE. The monitored agents are defined in the insightmanager.dat file. These definitions enable agents other than the HP Insight Management Agents to be discovered on an HP classified device. These definitions were set up following the defaults in Unicenter.

If an agent being used on an HP device is not listed here, the insightmanager.dat file must be modified to include the information for the desired agent. For example, if the NT System Agent was not listed in the insightmanager.dat file, then the NT System Agent would not be discovered, or would display as “absent” or “gone” under the HP_WindowsNT_Server class.

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_Windows95	Ping SysAgtWin95 SysAgtWin9x MMExagent_v30 InsightManager
HP_Windows9x	Ping SysAgtWin95 SysAgtWin9x MMExagent_v30 InsightManager
HP_WindowsNT	Ping SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 caiLogA2 IngAgent sapAgent MmoAgent InsightManage MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent caiW2kOs caiNtOsr

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_Windows2000	Ping Mib2 SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 IngAgent sapAgent MmoAgent caiW2kOs caiNtOs caiLogA2 InsightManager sapAgent MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent
HP_WindowsXP	Ping Mib2 SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 IngAgent sapAgent MmoAgent caiW2kOs caiNtOs caiLogA2 InsightManager sapAgent MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_WindowsNT_Server	Ping Mib2 SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 caiLogA2 IngAgent sapAgent MmoAgent InsightManager MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent caiW2kOs caiNtOs
HP_Windows2000_Server	Ping Mib2 SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 IngAgent sapAgent MmoAgent caiW2kOs caiNtOs caiLogA2 InsightManager MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_Windows_NetServer	Ping Mib2 SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 IngAgent sapAgent MmoAgent caiW2kOs caiNtOs caiLogA2 InsightManager MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent
HP_Novell	Ping SysAgtNetWare MMExagent_V30 InsightManager
HP_UnixWare	Ping Mib2 LogAgent_v30 ProAgent_v30 HpaAgent MMExagent_v30 IngAgent sapAgent MmoAgent InsightManager SysAgtUnix caiLogA2 OsAgent_v30 OraAgent_v30 ImxAgent HpxAgent db2Agent CaiUxOs
HP_OS2	Ping SysAgtOS2 MMExagent_v30 InsightManager

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_DECSystem	Ping LogAgent_v30 ProAgent_v30 SybaseAgt HpaAgent MMExagent_v30 IngAgent sapAgent MmoAgent InsightManager caiLogA2 SysAgtUnix SysAgtVMS MMsapAgent OsAgent_v30 OracleAgt OraAgent_v30 ImxAgent HpxAgent db2Agent CaiUxOs OraAgtVMS MmsAgent
HP_SCOUnix	Ping Mib2 SysAgtUnix OsAgent_v30 Log_Agent_v30 ProAgent_v30 HpaAgent MMExagent_v30 IngAgent sapAgent MmoAgent InsightManager caiLogA2 OracleAgt OraAgent_v30 ImxAgent HpxAgent db2Agent CaiUxOs
HP_Linux	Ping Mib2 SybaseAgt OsAgent_v30 Log_Agent_v30 ProAgent_v30 HpaAgent IngAgent MMExagent_v30 sapAgent MmoAgent InsightManager caiLogA2 ImxAgent HpxAgent db2Agent CaiUxOs caiSysAgtMqs

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_InsightManager	Ping Mib2 SysAgtNT SQLServerAgt SybaseAgt HpaAgent MMExagent_v30 LogAgentNT_v30 caiLogA2 IngAgent sapAgent MmoAgent InsightManager MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent decStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent caiW2kOs caiNtOs
HP_IntegrityServer	Ping Mib2 InsightManager SQLServerAgt Agent:SybaseAgt Agent:HpaAgent MMExagent_v30 IngAgent sapAgent MmoAgent caiW2kOs caiLogA2 MMsapAgent MmsAgent ImxAgent HpxAgent HpeNgent dceStatAgent db2Agent CicsInstance cellAgent caiSysAgtMvs caiSysAgtMqs caiSysAgtCics pplAgent
HP_RemoteInsight	Ping Mib2
HP_RackEnclosure	Ping
HP_SANAppliance	Ping InsightManager

Table 28 Agents monitored under HP classes

HP class in the CORE	Agents monitored for the HP class
HP_TaskSmart	Ping InsightManager

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