

administrator's
reference

hp OpenView Storage Area Manager Service Desk Integration

Product Version: 3.1

October 2003

Part Number: T2534-90012



This guide describes how to integrate hp OpenView Storage Area Manager with hp OpenView Service Desk.



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Storage Area Manager Service Desk Integration administrator's reference
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contents

1	Introduction	5
	About hp OpenView storage area manager	6
	Device discovery and mapping	6
	Event management	6
	Manager of Managers	7
	User authentication and authorization	7
	Storage Node Manager	8
	Storage Optimizer	8
	Storage Builder	9
	Storage Accountant	11
	Storage Allocator	12
	hp OpenView storage area manager architecture	14
	Bridge	15
	Management Server	15
	Managed Host	15
	Management Client	16
	Manager of Managers	16
	OpenView Enterprise Applications	17
	hp OpenView storage area manager user interfaces	18
	Graphical User Interface	18
	Command Line User Interface	20
	What is hp OpenView storage area manager Service Desk integration?	22
2	Installation	23
	Installation prerequisites	24
	Hardware requirements	24
	Software requirements	25
	Installing the hp OpenView storage area manager Service Desk integration	30
	Installed file locations	33

- 3 Configuration for Service Desk 4.035**
 - Creating hp OpenView storage area manager specific CI categories. 36
 - Creating template for import mapping 38
 - Import mapping settings for importing hp OpenView storage area manager devices 41
 - Creating data exchange task 49
 - Configuration required for forwarding events from OVO 52
 - Modify the configurable extractor file 52
 - Create import mappings for forwarding the events 53
 - Acknowledging the OVO events from Service Desk. 63

- 4 Configuration for Service Desk 4.565**
 - Importing hp OpenView storage area manager settings. 66
 - Select geographical location for importing OpenView SAM devices 69
 - Forwarding events from OVO 71
 - Modify the configurable extractor file on OVO Unix server. 71
 - Modify the configurable extractor file on OVO Windows server 72

- 5 Using73**
 - Importing OVO managed nodes as CIs 74
 - Import OVO managed nodes from UNIX server. 74
 - Import OVO managed nodes from Windows server 74
 - Importing hp OpenView storage area manager devices as CIs 75
 - Creating device information file 75
 - Start data exchange task to import hp OpenView storage area manager devices as CIs. 76

- 6 Troubleshooting81**
 - Events do not get forwarded/acknowledged from/on OVO 82
 - Mapping of the forwarded events with CIs On Service Desk 83
 - Log files for forwarded events from OVO to Service Desk. 84

- 7 Uninstalling85**
 - Uninstalling the hp OpenView storage area manager Service Desk integration 86

Introduction



- [About hp OpenView storage area manager](#), page 6
- [hp OpenView storage area manager architecture](#), page 14
- [hp OpenView storage area manager user interfaces](#), page 18
- [What is hp OpenView storage area manager Service Desk integration?](#), page 22

About hp OpenView storage area manager

HP OpenView Storage Area Manager provides comprehensive, centralized management across distributed, heterogeneous storage networks. The Storage Area Manager product suite includes the following five applications: Storage Node Manager, Storage Optimizer, Storage Builder, Storage Accountant, and Storage Allocator.

These applications work within a framework that is available regardless of which applications are installed and licensed. Among other features, this framework provides:

Device discovery and mapping

Storage Area Manager automatically discovers hosts, interconnect devices, and storage devices in direct attached (Fibre Channel or SCSI) and networked storage (SAN and NAS) environments. Discovered devices are placed in the Resources tree and a device map. Storage Area Manager illustrates the relationship of these devices by displaying their links within each device map.

If the storage network is using interconnect hardware to support fabric zoning, Storage Area Manager identifies the pre-configured zones and lists them under the Storage Networks node in the Resources tree. Storage Area Manager also creates a corresponding device map of each zone.

Event management

Based on its status inquiries of the storage network and its own processes, Storage Area Manager generates and displays events in the event panel. Framework and discovery-related events are displayed regardless of which applications are installed and licensed. Device status, performance, capacity, billing, and LUN security related events only appear if the applicable application is installed and licensed.

Storage Area Manager is able to receive SNMP traps from devices that support trap forwarding. You can also configure event triggers to perform certain actions based on event criteria. For example you can configure an event trigger to send e-mail notification to your on-call administrator for all events of a particular severity level.

Storage Area Manager also provides several features to manage the events that appear in the event panel. You can configure filters so only events that meet the filter's criteria are displayed in the event panel. You can also export all or selected events to a .txt, .csv, or .xml file. Finally, you can configure Storage Area Manager to automatically delete events based on a maximum number or on certain criteria such as event age, event severity level, or event category.

Manager of Managers

The Manager of Managers (MoM) enables you to monitor several storage domains from one console. You can configure MoM to retrieve and display status and event information from each Storage Area Manager management server in your environment. This feature allows Storage Area Manager to easily scale in large, complex storage environments.

User authentication and authorization

When starting Storage Area Manager, users must login with their unique user name and password. Storage Area Manager user accounts can be configured with different levels of privilege. User accounts with Administrator privilege are able to save changes to the Storage Area Manager database and may perform all Storage Area Manager tasks. User accounts with Guest privilege are only able to view information provided by Storage Area Manager and are not able to save changes. User account privileges apply to tasks conducted both through the graphical user interface (GUI) and command line user interface (CLUI).

Storage Node Manager

Storage Node Manager provides device status monitoring and reporting capability to the Storage Area Manager product suite. Among other features, Storage Node Manager provides:

Device status monitoring

Storage Node Manager monitors and graphically displays the status of each discovered device in your storage network. Device status is displayed wherever the device is referenced in the user interface, including the Resources tree, device map, and event panel.

Based on its status inquiries of the storage network, Storage Area Manager generates and displays status-related events as they occur in your storage network.

Application linking

You can link device-specific applications to Storage Area Manager and then start them from the user interface. The applications are linked to specific devices or device models. Many default device-specific application links are provided with Storage Node Manager.

Storage Optimizer

Storage Optimizer monitors and reports device performance in a storage network. Performance metrics vary by device; however, a set of common metrics are available for all devices supported by Storage Optimizer. Among other features, Storage Optimizer provides:

Performance views

Performance views for host disks, volumes, interconnect devices, ports, storage devices, and LUNs. Performance lists, displayed for groups of devices in the Resources tree, allow you to compare common metrics for all disks, volumes, storage devices, and so on. Performance charts show you the performance analysis of individual devices over time.

Top-N analysis

You can sort performance lists by order of performance and limit the length of the list to the first 5, 10, 15, and so on to 100 devices.

Past and future trends

Performance charts display a line graph of past and future performance. Storage Optimizer predicts future performance by identifying trends in past data. You can turn this feature on or off, and you can select from a full range of predictive models.

Performance thresholds and threshold events

Storage Optimizer monitors the current and predicted performance of individual resources for threshold violations. If performance differs significantly from a mathematically derived baseline, Storage Optimizer sends a threshold violation to Storage Area Manager's event panel. Administrators can turn baselines on or off and configure event triggers.

Data export

You can save the contents of performance charts in a comma-delimited (.csv) file.

Storage Builder

Storage Builder monitors and reports storage capacity in a storage network. It routinely discovers the physical capacity of storage devices and logical capacity of hosts and NAS devices, and analyzes the information for current usage, past and future usage trends, and threshold violations. Among other features, Storage Builder provides:

Capacity data for host resources

Host resources include directories, disks, users, volumes, and volume groups. Clicking any of these labels in the Resources tree displays a list of the individual resources and their capacities. Selecting a resource from the list displays additional information about the individual directory, disk, user, and so on.

Capacity views

For hosts and NAS devices, view panels show the used and free file space. For storage devices, the view panels show the disk space that is visible to hosts, that is unformatted, and that is spent in overhead. At the group level in the Resources tree--the domain Hosts, NAS Devices, and Storage Devices nodes--Capacity view panels display summarized capacity information for the corresponding resources.

Past and future usage trends

From the Capacity view panel, you can display a line graph of past and future capacity. Storage Builder predicts future capacity by identifying trends in past data. You can turn this feature on or off, and you can select from a full range of predictive models.

Capacity thresholds and threshold events

Storage Builder monitors the current and predicted capacity of individual resources for threshold violations. If measured capacity exceeds or falls below a specified target, Storage Builder sends a threshold violation to Storage Area Manager's event panel. Administrators can set thresholds and configure event triggers.

Data export

You can save the contents of capacity graphs and pie charts in a comma-delimited (.csv) file.

File Analysis

You can generate a report on stale files, junk files, the largest files, largest directories, and all files and directories on each and all hosts in the domain. You can modify the default reports and create original reports.

Storage Accountant

Storage Accountant meters storage space in organization accounts and reports the associated cost at the end of each month. Accounts belong to internal or external organizations. Among other features, Storage Accountant provides:

Service Level, Organization and Account nodes in the Applications tree

Storage Accountant associates LUNs with service levels and then associates the service-rated LUNs with organization accounts. You can view, create, add LUNs to, and maintain service levels and organization accounts from these nodes.

Centralized setup functions

The Accounting view panel provides all the tools you need to set up storage billing. You can view, create, and add LUNs to service levels; view and create organizations; add organization accounts; and attach LUNs to accounts. You can also view the total number of service levels, organizations, LUNs in service levels, and the total storage value that is billed and not billed.

Monthly and interim bill reports

Storage Accountant rolls up daily charges into a monthly bill that is arranged by organization and account. Detailed bills describe the charges for each LUN. Summary bills show only the total charges for each organization and account. Using the Bill Viewer, you can view, export, and print bills for the current (interim) or past billing periods and for all or individual organizations.

Storage device and service level billing reports

Storage Accountant creates monthly billing reports that are organized by storage device or service level. Summary reports show the total charges for the storage device or service level LUNs in accounts and LUNs not in accounts. Detailed reports show summary information and a LUN-by-LUN description of charges.

Exported bills

Storage Accountant automatically exports monthly bill reports in a format and location that you choose. Available formats include CSV, HTML, and XML. You can set event triggers that launch a third-party billing application once the report is exported.

Storage Allocator

Storage Allocator controls storage access and provides security by assigning logical units (LUNs) to specific hosts or groups. Assigned LUNs cannot be accessed by any other hosts. With this application, you can assign, unassign, and reassign storage and related devices from a diverse pool. Among other features, Storage Allocator provides:

Security Groups

Share groups and associated LUN groups streamline your storage assignments. Share groups allow multiple hosts to share the same storage devices. Associated LUN groups keep sets of logical units (for example, stripe sets or mirror sets) together, requiring them to be assigned and unassigned as a unit.

Organizational Groups

Host groups and LUN groups allow you to arrange hosts and logical units into hierarchical groups in the Storage Area Manager user interface.

Reports

Storage Allocator can generate reports that show all LUNs, assigned LUNs, or unassigned LUNs. These reports allow you to quickly view the assignment status of all of the LUNs in the current storage domain.

System availability

Storage Allocator provides increased system availability by enabling storage to be assigned, unassigned, and re-assigned without reboots.

Automation of LUN allocation operations

Hooks in the Storage Area Manager command-line interface allow you to automate LUN allocation operations with scripts.

hp OpenView storage area manager architecture

Storage Area Manager’s hardware and software architecture consists of the bridge, management server, managed host(s), management client(s), and the Manager of Managers (optional). This section offers an overview of each of these elements.

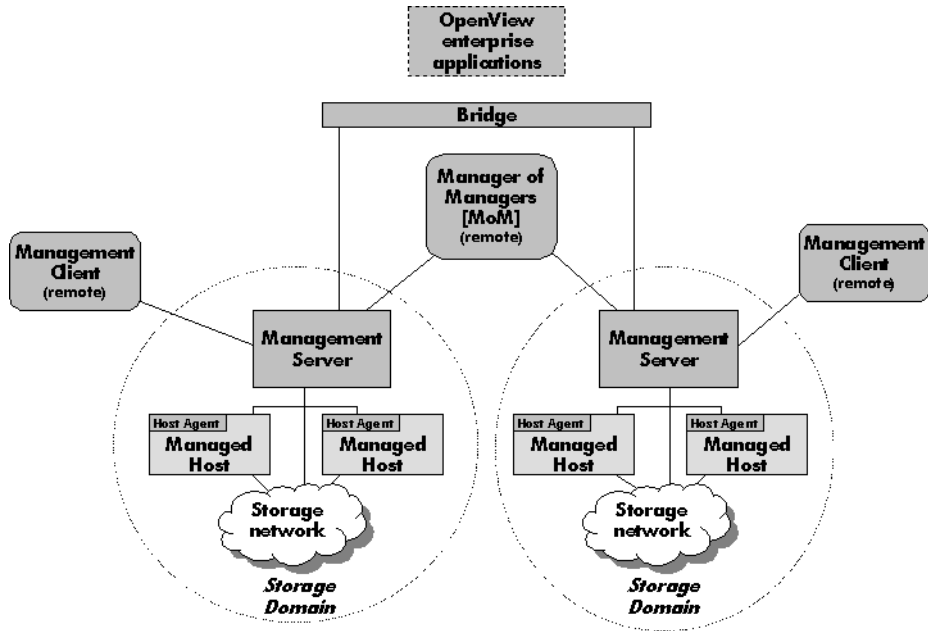


Figure 1: hp OpenView storage area manager Architecture

Bridge

The Storage Area Manager bridge is a web server application that allows other applications access to Storage Area Manager's functionality. This access enables Storage Area Manager to have tight integration with other hp OpenView enterprise applications. The bridge is able to consolidate information from multiple management servers for use by the application integrating with the bridge.

The bridge is automatically installed on the management server when you install Storage Area Manager from the CD.

Management Server

The management server is a server application that hosts the majority of Storage Area Manager functionality. This framework includes Storage Area Manager's database, discovery subsystem, event handling subsystem, configuration files, and server components for each of the five applications that comprise the product suite.

The management server software is installed from the Storage Area Manager CD on a dedicated Windows 2000 server or workstation. One management server manages a single storage domain. A storage domain consists of storage resources that are visible to the SAN hosts associated with the management server. Storage Area Manager is capable of managing direct-attached, SAN-attached, or network-attached storage resources.

Managed Host

The managed host contains the host agent software, which includes all components that require access to the storage resources that are visible to the hosts. These components include discovery, status and event inquiry, and performance and capacity data collection.

The host agent software can be installed remotely from the management server or locally from the Storage Area Manager CD on to a Windows, HP-UX, Solaris, Linux, AIX, Tru64 Unix, OpenVMS, and Netware hosts. Upon successful installation, the host becomes associated with and dedicated to the management server. The host agent runs as a service on Windows hosts and as a daemon on Unix hosts.

Management Client

The management client is a graphical user interface (GUI) application that uses a common navigation and presentation framework to display the storage information that is stored by the management server.

The management client software is automatically installed on the management server. The management client can also be downloaded from the management server to remote client systems running Windows, HP-UX, Solaris, or Linux.

Manager of Managers

The Manager of Managers (MoM) is a graphical user interface (GUI) application that consolidates storage information from multiple storage domains. This allows an administrator to view from a single location the high-level status and filtered event information of a large or geographically dispersed storage network. The administrator can also launch the management client for a particular storage domain to view the detailed information displayed by the client.

The MoM software can be downloaded from the management server to remote Windows, HP-UX, Solaris, and Linux hosts. It is an optional piece of the Storage Area Manager architecture.

OpenView Enterprise Applications

Storage Area Manager integrates with various OpenView enterprise applications. Through the bridge, the Storage Area Manager SMART Plug-In (SPI), and the integration packages contained on the Storage Area Manager CD, Storage Area Manager information and control can be integrated with:

- hp OpenView Reporter (OVR)
- hp OpenView Service Information Portal (SIP)
- hp OpenView Operations for Windows (OVW)
- hp OpenView Operations for Unix (OVO)
- hp OpenView Internet Usage Manager (IUM)
- hp OpenView Service Navigator
- hp OpenView Service Activator
- hp OpenView Service Desk

hp OpenView storage area manager user interfaces

Storage Area Manager provides two interfaces within which you can perform storage management tasks: the graphical user interface (GUI) and the command line user interface (CLUI).

Graphical User Interface

Storage Area Manager's intuitive, tri-pane GUI allows you to monitor the status of your storage network, view event information, and easily perform administrative tasks. Figure 2 illustrates some of the key elements of the Storage Area Manager GUI.

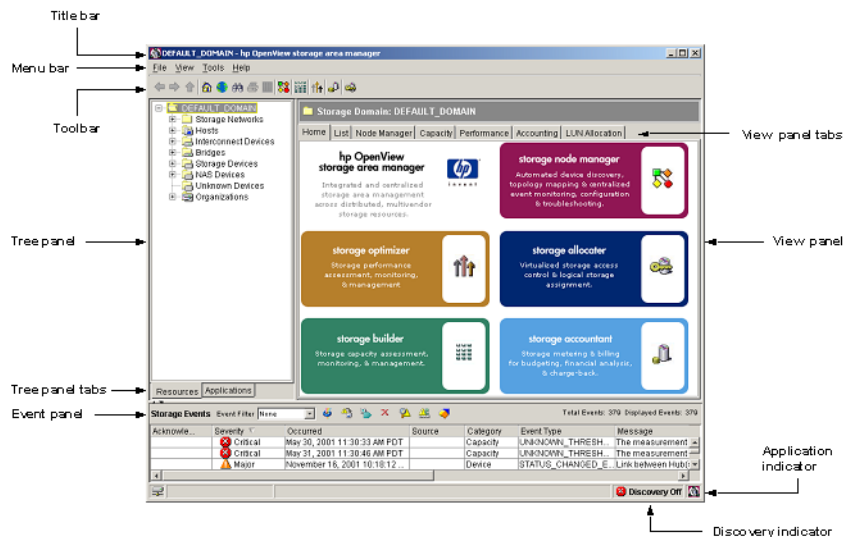


Figure 2: hp OpenView storage area manager GUI

Title bar

The title bar indicates the node or subnode currently selected in the tree panel and the product name. For example, "DEFAULT_DOMAIN - hp OpenView storage area manager".

Menu bar and toolbar

The menu bar and toolbar provide access to commonly performed tasks. Application icons are included on the toolbar, which provide direct navigation to each application's home page.

Tree panel

The tree panel includes two views, Resources and Applications, which are controlled by the Tree panel tabs at the bottom of the tree panel.

- The Resources tree lists resources managed by the storage domain including storage networks, devices, and organizations. Storage networks are defined as islands of Fibre Channel connectivity, which indicates that each device in the storage network is able to send Fibre Channel commands to all other devices in the storage network. Each storage network is represented by a corresponding device map.

Device types include hosts, interconnect devices, bridges, storage devices, NAS devices, and unknown devices.

Organizations include various resources in their membership and are used by Storage Accountant as part of its billing functionality.

- The Applications tree includes a node for each of the five applications that make up the Storage Area Manager product suite. Each application node includes shortcut navigation to that application's primary tasks.

Event panel

The event panel lists events received and reported by Storage Area Manager as it monitors the storage network. Each event listed in the event panel includes its severity level, the date and time it occurred, the source of the event, the event's category and type, and the message provided by the event itself.

The Storage Area Manager's event management subsystem enables several features to help you manage the events displayed in the event panel. These features are conducted through use of the toolbar icons near the top of the event panel and include such tasks as acknowledging, deleting, and exporting events. You can also create event filters, which enable you to display only those events that meet the criteria you set when creating the event filter.

View panel

The view panel displays detailed content for the node or subnode that is currently selected in the tree panel.

This may include lists (for example, a list of all storage devices), specific device properties information (for example, identifying information for a particular disk array), device capacity or performance data (for example, the amount of unconfigured space for a particular disk array), or device maps that illustrate the storage network.

Tabs near the top of the view panel provide navigation to other areas of content for the displayed device.

Application indicator

The application indicator reflects which application's information is currently displayed in the view panel.

Discovery indicator

The discovery indicator reflects if Storage Area Manager's ongoing device discovery process is on or off.

Command Line User Interface

Storage Area Manager's CLUI provides an alternative interface to the GUI. Nearly all tasks that can be performed in the GUI can also be performed from the CLUI.

Like the GUI, the tasks that can be performed within the CLUI are restricted by the Storage Area Manager applications that are installed and licensed and by the privileges assigned to the user name that is used to log into the CLUI.

The CLUI offers several forms of assistance for each command including purpose statements, help text, and man pages.

- Purpose statements offer a high-level description of the command. To view the purpose statement for a particular command, enter:

purpose <“command name”>

Note: You must include the command name in quotes (“”) when running the purpose command. This is not required for the help text or man page commands.

- Help text offers detailed usage information for each of the command’s options and arguments. To view the help text for a particular command, enter:

help <command name>

- Man pages are the highest level of assistance for each command. Each man page includes an expanded description of the command, its options and arguments, the license and user account privilege required to run the command, an example, and a list of other CLUI commands that are closely related to this command. To view the man page for a particular command, enter:

man <command name>

What is hp OpenView storage area manager Service Desk integration?

The hp OpenView Storage Area Manager Service Desk integration is a software product, which, by means of a full integration with Service Desk, extends the management scope of Service Desk to include systems managed by hp OpenView Storage Area Manager.

The Service Desk integration for Storage Area Manager extends the existing integration between Service Desk and HP OpenView Operations (OVO).

The following are the features provided by the integration:

- A utility to create Storage Area Manager specific Configuration Item (CI) categories
- A utility to import Storage Area Manager managed devices as configuration items in Service Desk
- Uses the existing integration tools available with the Service Desk integration with OVO [modified to suit Storage Area Manager integration needs] to forward Storage Area Manager specific events as incidents to Service Desk
- Uses the existing integration between OVO and Service Desk for acknowledging events in OVO when incidents are closed in Service Desk

The integration requires an OVO management server with the Service Desk integration installed and configured. It also requires the Storage Area Manager SPI to be installed and configured on the OVO management server in order to function correctly as the integration of Storage Area Manager with Service Desk is tightly coupled with the Storage Area Manager SPI.

Installation



- [Installation prerequisites](#), page 24
- [Installing the hp OpenView storage area manager Service Desk integration](#), page 30
- [Installed file locations](#), page 33

Installation prerequisites

This section lists the prerequisites for the installation of:

- hp OpenView storage area manager Service Desk 4.0 integration
- hp OpenView storage area manager Service Desk 4.5 integration

The hp OpenView storage area manager Service Desk 4.0 integration will get installed only if the system has Service Desk 4.0 server installed, while hp OpenView storage area manager Service Desk 4.5 integration will get installed only if the system has Service Desk 4.5 client installed. To avoid problems during the installation of the integration, it is essential that you read this section, and any other documents recommended in the section, before you start the installation process.

Hardware requirements

- For a detailed list of hardware requirements on the Service Desk Server/Client Systems and on the OVO System, refer to the *HP OpenView Service Desk 4.0/4.5 Installation Guides* and *hp OpenView Service Desk supported platforms list*, which is included with the Service Desk 4.0/4.5 products. The additional disk space requirements are shown in the table below.

Table 1: Disk Space Requirements for Service Desk 4.0

Machine	OS Installation	Installation	Runtime Files	Total
Service Desk Server	Windows NT Server, Windows 2000 Advanced Server	10 MB	1 MB	11 MB
OpenView Operations (OVO) Server	Windows 2000 Server HP-UX Sun Solaris	1 MB	-	1 MB

Table 2: Disk space requirements for Service Desk 4.5

Machine	OS Installation	Installation	Runtime Files	Total
Service Desk Client	Microsoft Windows 98 SE, Microsoft Windows NT 4.0 Workstation, Microsoft Windows 2000 Professional, Windows 2000 Terminal Services (W2k Advanced Server only), Microsoft Windows XP Professional	5 MB	1 MB	6 MB
OpenView Operations (OVO) Server	Windows 2000 Server HP-UX Sun Solaris	1 MB	-	1 MB

Note: No additional memory (RAM) is required on the target system for installation of these integrations.

Software requirements

For a detailed list of software requirements for the Service Desk server/client and the OVO server, refer to the *HP OpenView Service Desk 4.0/4.5 Installation Guides*

The following table lists the versions of Storage Area Manager, Service Desk server and OpenView Operations management server supported by these integrations.

Table 3: Storage Area Manager Supported Versions

Operating System	Storage Area Manager Version
Windows 2000	03.10.00

Table 4: Service Desk Supported Versions

Operating System	Service Desk Version
Microsoft Windows NT 4.0 Server Service Pack 6a	4.0 with Service Pack 4 4.5 with Service Pack 4
Windows 2000 Advanced Server Service Pack 1	
HP-UX 11.0	4.5 with Service Pack 4
Sun Solaris 8	4.5 with Service Pack 4

Table 5: OVO Supported Versions

Operating System	OVO Version
HP-UX 11.00	A.07.00 and A.07.10
HP-UX 11.11	
Sun Solaris 2.7	
Sun Solaris 2.8	
Windows 2000	A.07.00 and A.07.10

Software prerequisites for Service Desk 4.0

On the Service Desk server

- HP OpenView Service Desk 4.0 VantagePoint Operation Integration (Service Desk Server part) should be installed and configured correctly. For details, refer to the *HP OpenView Service Desk 4.0 Installation Guide* and *HP OpenView Service Desk 4.0 VantagePoint Operation Integration Administrator's Guide*.
- If the Service Desk server is running Microsoft Windows NT, the Microsoft ODBC text driver must be installed on the Service Desk server prior to the installation of the integration.
- Oracle 8.1.7/9i client with Network Components must be installed and configured correctly. This is required to import the OVO managed nodes as Configuration Items on Service Desk from OVO UNIX Servers.

Note: The Microsoft ODBC text driver is part of the Microsoft Data Access Components (MDAC) package. The MDAC can be obtained freely from the following location:
<http://www.microsoft.com/data/download2.htm>

On the OVO management server

- HP OpenView Service Desk 4.0 VantagePoint Operation Integration (OVO Server part) should be installed and configured correctly.

Service Desk Agent should be installed and configured correctly. For details, refer to the *HP OpenView Service Desk 4.0 VantagePoint Operation Integration Administrator's Guide*. To install Service Desk Event Communicator and Service Desk Agent on Sun Solaris 2.8 and HP-UX 11.11 platforms, you need to modify the installation script named as `install.sh` after installing HPOVSD depot.

- Follow the steps below to modify the `install.sh` script:
 - On the HP-UX 11.11 system:
 - a. Edit the file `/opt/OV/SD/vantagepoint/install.sh`
 - b. Look for the line:

```
_VERSION=`uname -r`
```

and comment the line.

- c. Add the following line after the commented line:

```
_VERSION=B.11.00
```

- d. Save and close the file

— On the Solaris 2.8 system:

- a. Edit the file **/opt/OV/SD/vantagepoint/install.sh**

- b. Look for the line:

```
_VERSION=`uname -r`
```

and comment the line

- c. Add the following line after the commented line:

```
_VERSION=5.7
```

- d. Save and close the file

- **hp OpenView Smart Plug-In for hp OpenView Storage Area Manager** should be installed and configured correctly. For details, refer to the *hp OpenView Operations Smart Plug-In for hp OpenView storage area manager administrator's reference*.

Software prerequisites for Service Desk 4.5:

On the Service Desk client

- Oracle 8.1.7/9i client with Network Components must be installed and configured correctly. This is required to import the OVO managed nodes as Configuration Items on Service Desk from OVO UNIX Servers.
- If the Service Desk client is running Microsoft Windows NT, the Microsoft ODBC text driver must be installed on the Service Desk client prior to the installation of the integration.

On the OVO management server

- HP OpenView Service Desk 4.5 Event and OpenView Operations Integration should be installed and configured correctly.
- Service Desk Agent should be installed and configured correctly. For details, refer to the *HP OpenView Service Desk 4.5 OpenView Operations Integration Administrator's Guide*.
- hp OpenView Smart Plug-In for hp OpenView Storage Area Manager should be installed and configured correctly. For details refer to the *hp OpenView Operations Smart Plug-In for hp OpenView storage area manager administrator's reference*.

Note: For both Service Desk 4.0 and 4.5, you must install latest version of hp OpenView Smart Plug-In for OpenView Storage Area Manager (OVSAMSPI) on OVO management servers for proper operation. The supported version of OVSAMSPI on OVO Windows is 03.11.00. The supported version of OVSAMSPI on OVO UNIX is 03.10.00.

Installing the hp OpenView storage area manager Service Desk integration

The hp OpenView storage area manager Service Desk integrations can be installed using the InstallShield setup program. To install the hp OpenView SAM Service Desk 4.0 integration on the Service Desk server and hp OpenView SAM Service Desk 4.5 integration on Service Desk client, use the setup program as described in the following steps:

1. Run **setup.exe** to begin the installation.
2. The InstallShield wizard shows one of the following options to select the installation package feature depending on the Service Desk product installed on the system.
 - a. The following window will get displayed if the Service Desk 4.0 server is present on the system:

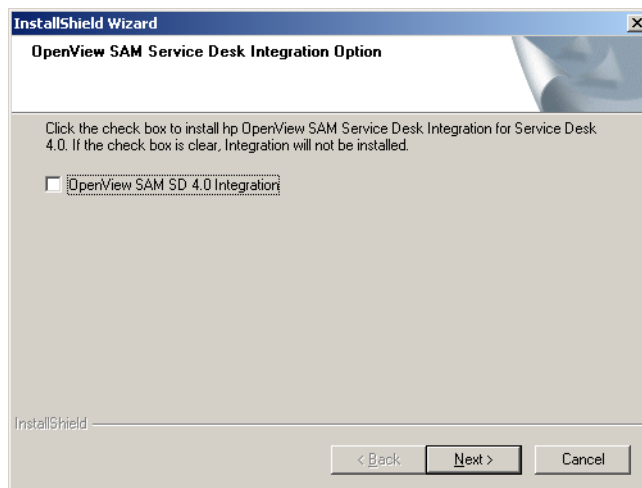


Figure 3: Storage Area Manager Integration for Service Desk 4.0 window

- b. The following window will get displayed if the Service Desk 4.5 client is present on the system:

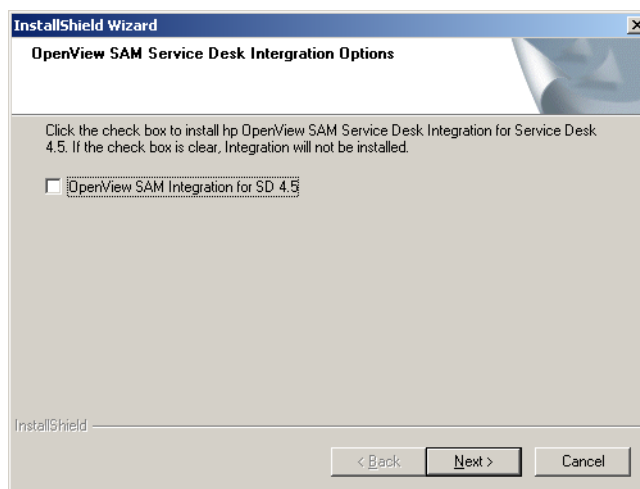


Figure 4: Storage Area Manager Integration for Service Desk 4.5 window

- c. The following window will get displayed if the Service Desk 4.0 server and Service Desk 4.5 client both are present on the system:

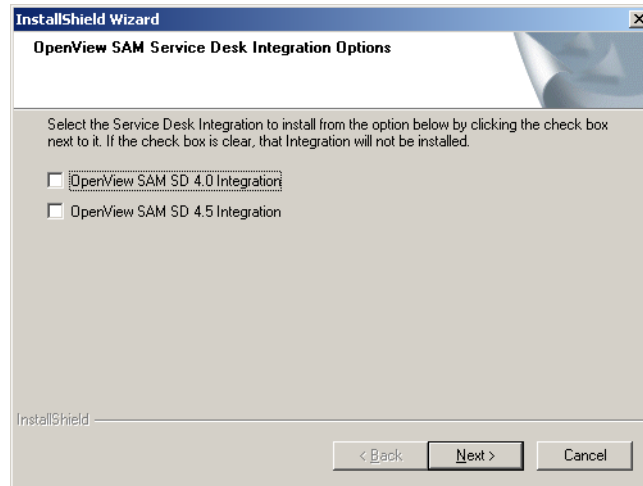


Figure 5: Storage Area Manager Integration for Service Desk 4.0 and Service Desk 4.5 window

Note: hp OpenView Service Desk 4.0 integration and hp OpenView Service Desk 4.5 integration can co-exist on a same system.

3. Choose the integration/s that you want to install by checking the box provided next to the option and click **Next**.
4. Follow the online instructions to complete the installation.

Installed file locations

The table below shows the directories and files that are created during the installation of Storage Area Manager Service Desk integration.

Table 6: Installed File Locations for hp OpenView SAM Service Desk 4.0 integration

File Type	Location
Executable programs/DLLs/jar files	<Service Desk Installed location>\OpenView SAM Integration\bin
Service Desk Extractor Configuration file	<Service Desk Installed location>\data_exchange\config
Documentation	<Service Desk Installed location>\OpenView SAM Integration\doc

Table 7: Installed File Locations for hp OpenView SAM Service Desk 4.5 integration

File Type	Location
Executable program, DLL and associated configuration files	<Service Desk Client Installed location>\OpenView SAM Integration\bin
Service Desk Extractor Configuration file	<Service Desk Client Installed location>\data_exchange\config
Service Desk ACES XML file	<Service Desk Client Installed location>\data_exchange\xml
Documentation	<Service Desk Installed location>\OpenView SAM Integration\doc

Configuration for Service Desk 4.0

3

- [Creating hp OpenView storage area manager specific CI categories](#), page 36
- [Creating template for import mapping](#), page 38
- [Import mapping settings for importing hp OpenView storage area manager devices](#), page 41
- [Creating data exchange task](#), page 49
- [Configuration required for forwarding events from OVO](#), page 52
- [Acknowledging the OVO events from Service Desk](#), page 63

Creating hp OpenView storage area manager specific CI categories

The first step in the configuration process is to create Storage Area Manager specific Configuration Item (CI) categories.

Follow the steps below to create Storage Area Manager specific CI categories in Service Desk:

1. Set environment variable `SD_JRE_PATH` as a system variable to the location where the Java Runtime Environment (JRE) is present. This environment variable should point to the directory where the java executable is stored. The `SD_JRE_PATH` environment variable is set through the Control Panel: **System Properties -> Advanced -> Environment Variables.**

Note: JRE will get installed when you install Service Desk on the system. You can also install and use your own JRE.

2. Close the HP OpenView Service Desk client interface if it is open.
3. Open the command prompt by typing **cmd** from the Windows Run dialog.
4. At the command prompt, change directory to the path where the Storage Area Manager Service Desk integration is installed.
5. Type **CreateCICategories <Server> <Username> <Password>** and press **Enter**

where

Server: Hostname where Service Desk Application Server is running

Username: Service Desk Application Server user name

Password: Service Desk Application Server user password

Caution: Service Desk user should have the privilege of System Administrator to create the CI categories. If you do not know the user name and password, contact the System Administrator.

6. The following messages are displayed:

`Creation of categories is in progress. Please wait....`

`Successfully created the categories.`

7. Note that there should not be any error messages on your console.

Creating template for import mapping

The next step in the configuration process is to create a template for import mapping. This template is used for importing Storage Area Manager specific devices.

To create a template for import mapping:

1. Open the Service Desk client.
2. From the **Tools** menu, click **System -> Data -> Templates -> Configuration Item**. The Template window opens.

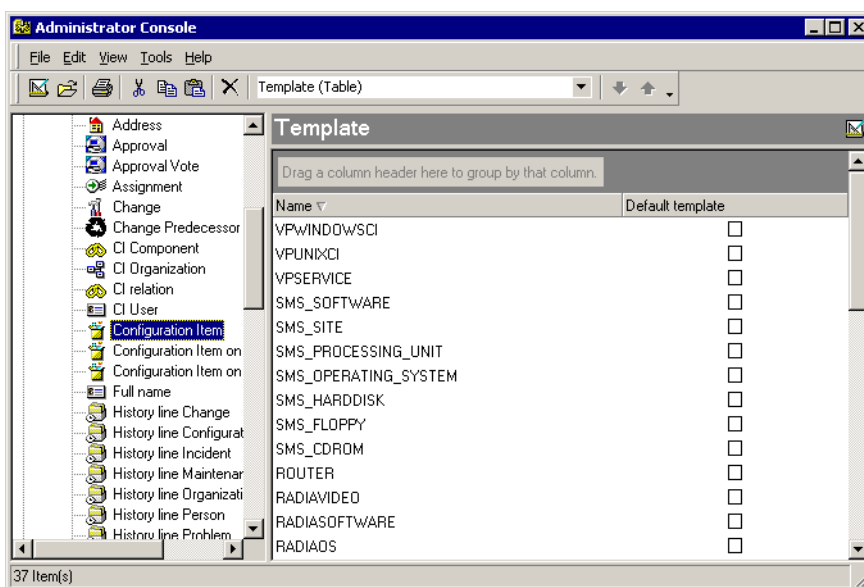


Figure 6: Template Window

3. Right-click anywhere in the Template window and select **New Template** from the menu that appears. The New Template dialog box opens.

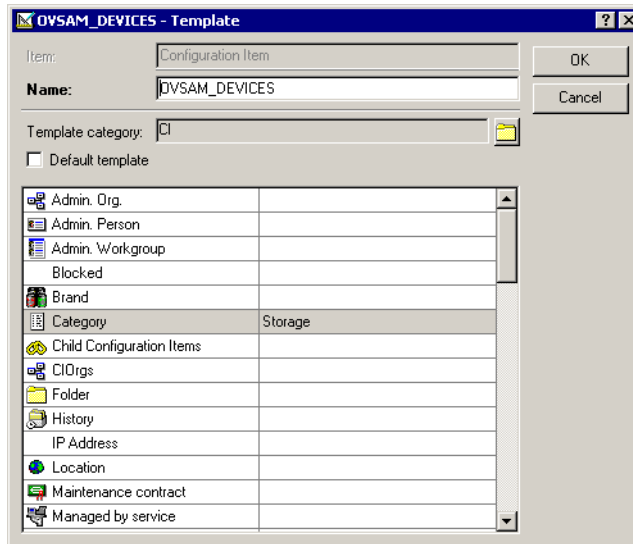


Figure 7: New Template Dialog Box

4. Type **OVSAM_DEVICES** in the Name text box and choose **CI** as a Template category as shown above.
5. Double-click on the **Category** field in the New Template Dialog box shown in [Figure 8](#) to open the Category window.

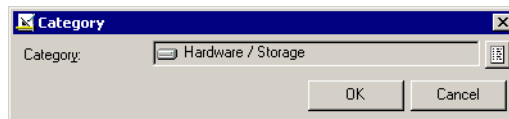


Figure 8: Default Category Location Window

6. Choose **Hardware/Storage** as shown in the figure above and click **OK**. This is the default CI category for all imported configuration items.
7. Double-click on the **Status** box in the New Template dialog box shown in [Figure 9](#) to open the Status field window.

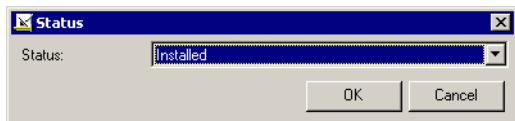


Figure 9: Status Field Window

8. Choose **Installed** in the Status box as shown above and click **OK**.
9. Similarly double-click on the **Unique** field in the New Template dialog box shown in [Figure 10](#) to open the Unique field window.

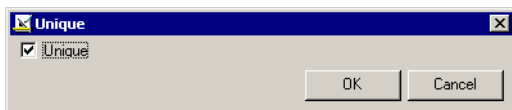


Figure 10: Unique Field Window

10. Check the **Unique** check box as shown in the figure above and click **OK**.
11. Click **OK** on the New Template dialog box shown in [Figure 11](#) to store the newly created template for import mapping.

Import mapping settings for importing hp OpenView storage area manager devices

The next step in the configuration process is to create import mapping required for importing Storage Area Manager devices.

1. Open the Service Desk client.
2. From the **Tools** menu, click **System -> Data -> Data Exchange -> Import Mapping**. The Import Mapping window opens.

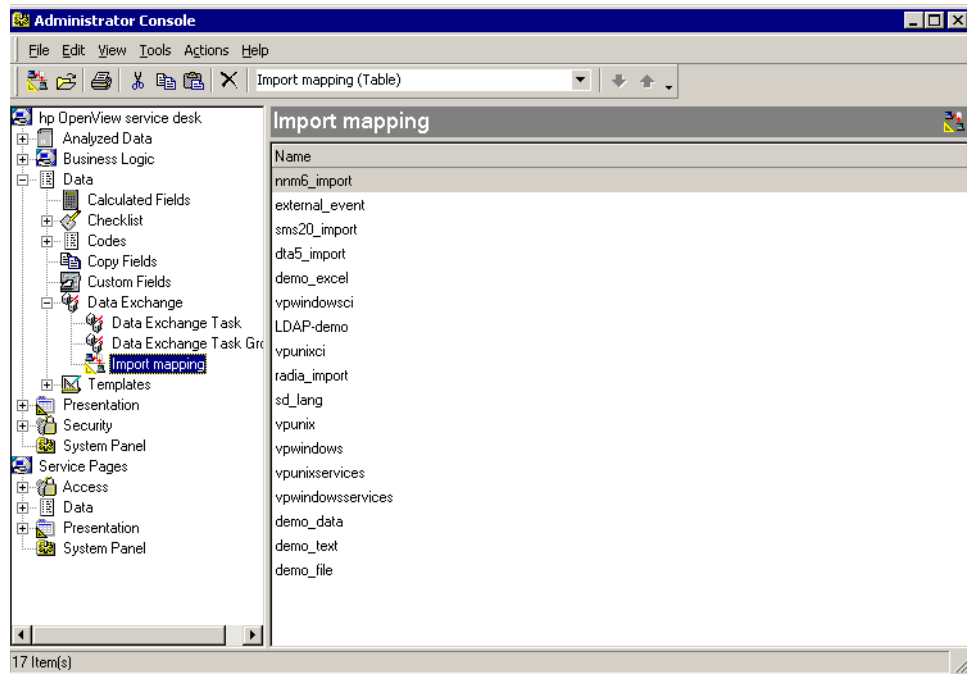


Figure 11: Import Mapping Window

3. Right-click anywhere in the Import Mapping window. Select **New Import Mapping** from the menu that appears. The New Import Mapping dialog box opens.

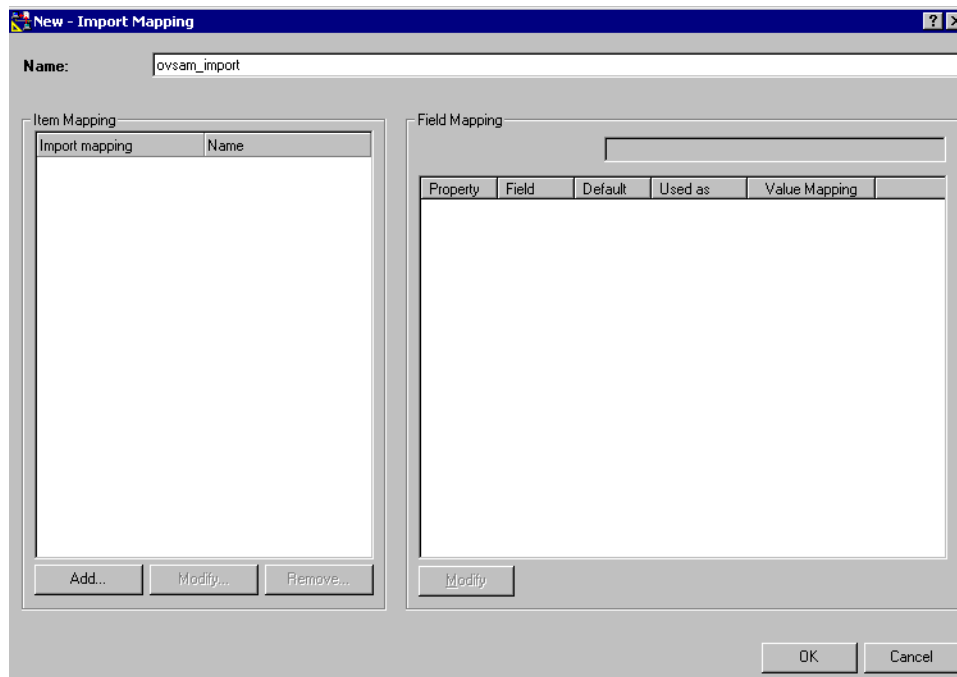


Figure 12: New Import Mapping Dialog Box

4. Provide the name **ovsam_import** in the Name field of the Import Mapping dialog box for the import mapping to identify which external application it is used for.
5. Click the **Add** button in the Item Mapping pane. The External Class Nodes dialog box opens.

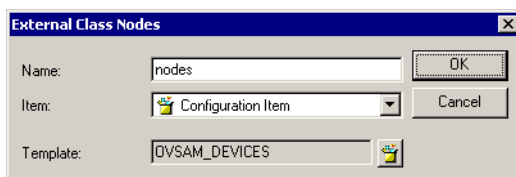


Figure 13: Mapping External Class with Configuration Item

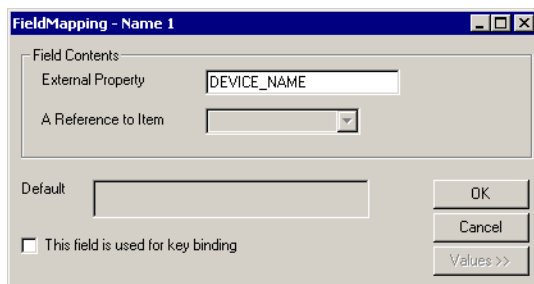


Figure 15: Field Mapping for Name1

9. Type **DEVICE_NAME** in the External Property field as shown above and click **OK**.
10. Double-click on the Name 2 field in the Field Mapping pane. The Field Mapping-Name2 window opens.

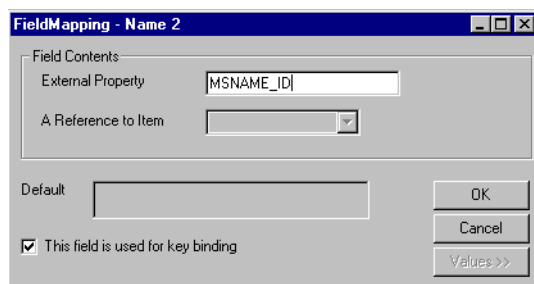


Figure 16: Field Mapping for Name 2

11. Type **MSNAME_ID** in the External Property field. Check **This field is used for key binding** check box as shown above and click **OK**.
12. Double-click on the **IP Address** field in the Field Mapping pane. The Field Mapping-IP Address window opens. Type **IP_ADDRESS** in the External Property field and click **OK**.
13. Double-click on the **Serial Number** field in the Field Mapping pane. The Field Mapping - Serial Number window opens. Type **SERIAL_NUMBER** in the External Property field and click **OK**.
14. Double-click on the **Search Code** field in the Field Mapping pane. The Field Mapping - Search Code window opens. Type **SEARCH_CODE** in the External Property field and click **OK**.

15. Double-click on the Categor&y field in the Field Mapping pane. The Field Mapping -Categor&y window opens.

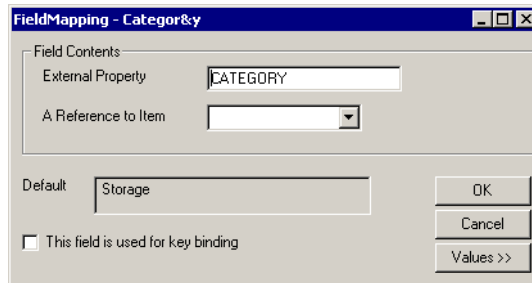


Figure 17: Field Mapping for Categor&y

16. Type **CATEGORY** in the External Property field and click on the **Values>>** button to get the Value Mapping pane as shown below.

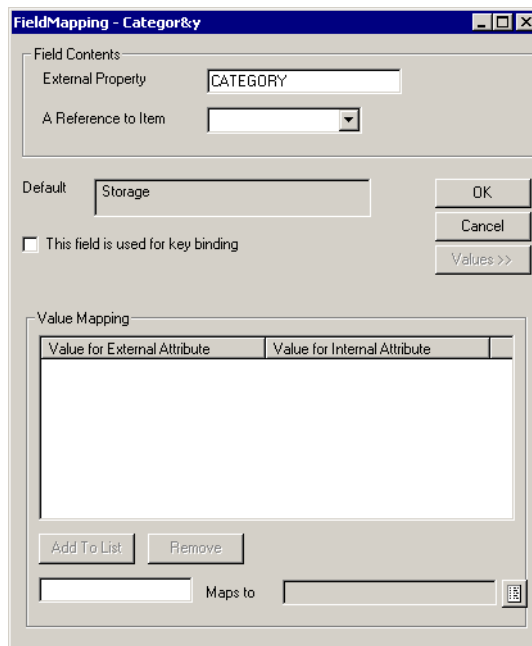


Figure 18: Value Mapping for Categor&y

17. In the Value Mapping pane, enter **Storage** in the text box provided to the left of the Maps to and choose **Hardware/Storage/Storage Device** in the text box provided to the right of the Maps to. Click the **Add To List** button to add this entry into the Value Mapping pane.
18. In the Value Mapping pane, enter **Interconnect** in the text box provided to the left of the Maps to and choose **Hardware/Storage/Interconnect Device** in the text box provided to the right of the Maps to. Click the **Add To List** button to add this entry into the Value Mapping pane.
19. In the Value Mapping pane, enter **NAS** in the text box provided to the left of the Maps to and choose **Hardware/Storage/NAS Device** in the text box provided to the right of the Maps to. Click the **Add To List** button to add this entry into the Value Mapping pane.
20. In the Value Mapping pane, enter **Bridge** in the text box provided to the left of the Maps to and choose **Hardware/Storage/Bridge** in the text box provided to the right of the Maps to. Click the **Add To List** button to add this entry into the Value Mapping pane.
21. In the Value Mapping pane, enter **Host** in the text box provided to the left of the Maps to and choose **Hardware/System/Server** in the text box provided to the right of the Maps to. Click the **Add To List** button to add this entry into the Value Mapping pane.

After adding all the entries, the Value Mapping pane should display all the entries as shown in the figure below.

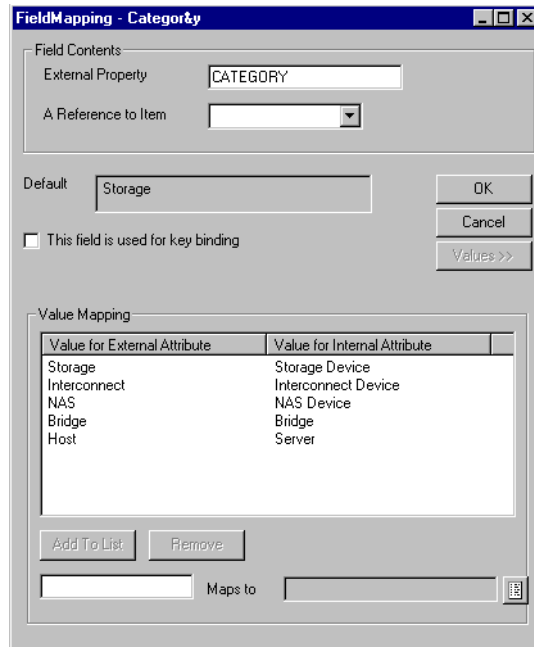


Figure 19: Final Value Mapping for Categor&y

22. You should get the window shown in the figure below after finishing all the field mappings and the value mappings required for importing. Click **OK** to store the newly created import mapping.

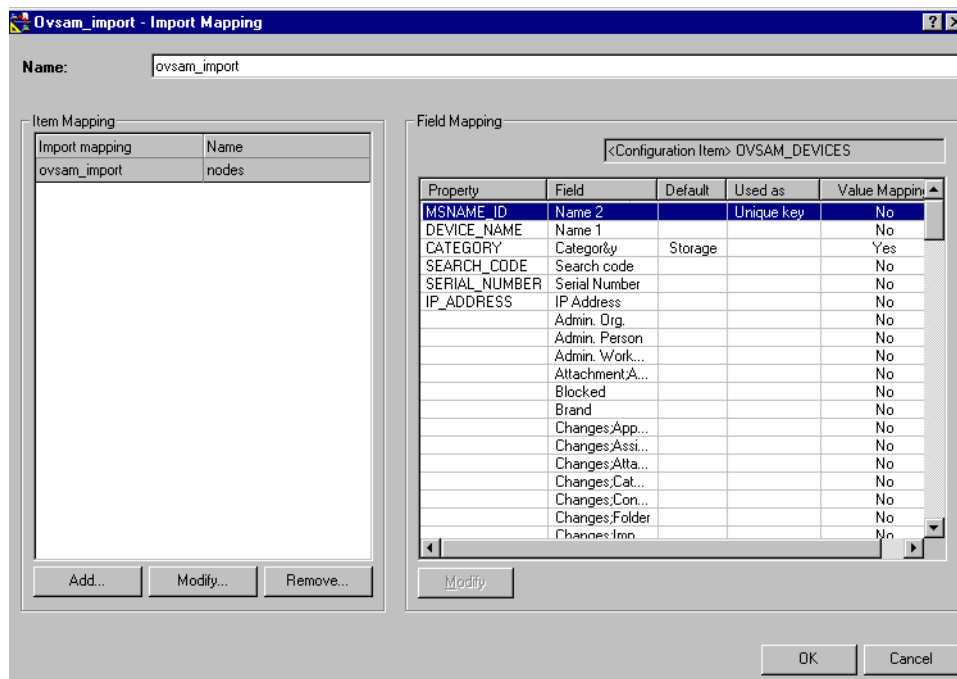


Figure 20: Import Mapping for Importing hp OpenView storage area manager Devices

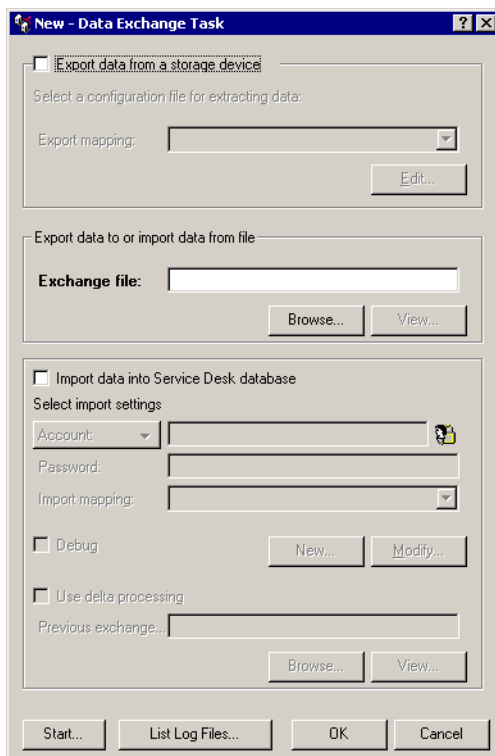


Figure 22: New Data Exchange Task Window

4. In the New Data Exchange Task Window:
 - a. Select the check boxes **Export data from a storage device** and **Import data into Service Desk database**.
 - b. Choose **SamCIExtractor.ini** in the **Export mapping** field from the available drop-down list.
 - c. Enter **SamCIExtractor.xml** in the **Exchange file** field.
 - d. Choose **ovsam_import** in the **Import mapping** field from the available drop-down list.
 - e. Enter the Service Desk account name and password.

The figure below shows the New Data Exchange Task after filling the values.

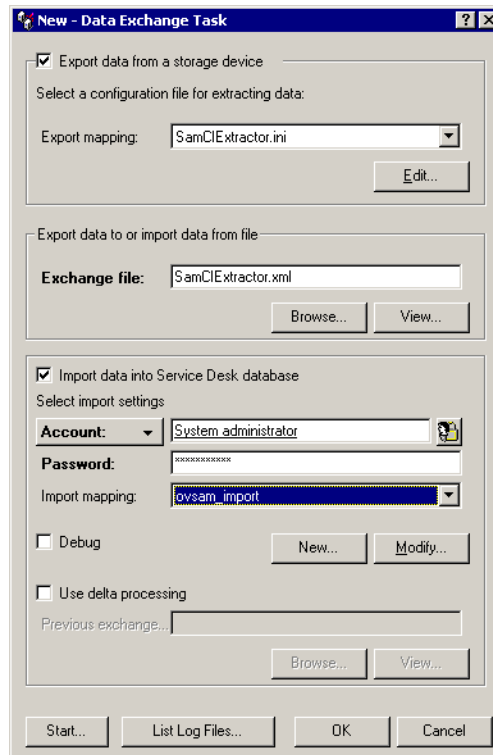


Figure 23: Data Exchange Task Window for Importing hp OpenView storage area manager Devices

5. Click **OK** to store the newly created data exchange task.

Configuration required for forwarding events from OVO

For forwarding events from OVO to Service Desk, configuration task needs to be performed on Service Desk server as well as OVO server.

The following configurations need to be done on the OVO server:

- Modify the configurable extractor file

The following configurations need to be done on the Service Desk server:

- Create import mappings for forwarding the events

Modify the configurable extractor file

For OVO on Unix:

The file **ovsam_event_unix.ini** is a configurable extractor used to extract information from VantagePoint. It can be found in the **/opt/OV/OVSAMSPI/sdevent** folder. You will need to update the **ACCOUNT** and **SERVER** entries in the configuration file, as a minimum requirement. A copy of the **ovsam_event_unix.ini** file follows:

```
[SD_EVENT]
SERVER=sd_application_server
ACCOUNT=VPU_server/password
LOGFILE=ovsam_event.log
ERROR_LOG_FILE=ovsam_event_error.log
PORT=30980
CLASSNAME=incident
MAPPING=ovsam_event_unix
MODUS=insert
LANGUAGE=GB
```

Note: Refer to chapter 4 “VP UNIX and Service Desk Configuration” in the *HP OpenView Service Desk 4.0 VantagePoint Operation Integration Administrator’s Guide* for details.

For OVO on Windows:

Modify the configurable extractor **ovsam_event_windows.ini**. The default location is: **%OvInstallDir%\bin\OVSAMSPI**. You will need to update the **ACCOUNT** and **SERVER** entries, as a minimum requirement. A copy of **ovsam_event_windows.ini** file follows:

```
[SD_EVENT]
SERVER          = sd_application_server
ACCOUNT         = VPW_server/password
LOGFILE        = ovsam_event.log
ERROR_LOGFILE  = ovsam_event_error.log
PORT           = 30980
CLASSNAME      = incident
MAPPING        = ovsam_event_windows
MODUS          = insert
LANGUAGE       = GB
```

Note: Refer to chapter 3 “VPO for Windows and Service Desk Configuration” in the *HP OpenView Service Desk 4.0 VantagePoint Operation Integration Administrator's Guide* for details.

Create import mappings for forwarding the events

Import mappings are required to be done on the Service Desk server for forwarding events from OVO Windows and Unix servers. Most of the fields (internal attributes and external properties) which are required to be mapped are similar on both the platforms (Windows and Unix).

For OVO on UNIX:

1. From the **Tools** menu of Service Desk client, click **System --> Data Exchange --> Import Mapping**. The Import Mapping window opens as shown in [Figure 11](#).
2. Right-click anywhere on the Import Mapping window and select **New Import Mapping**. The New Import Mapping window opens as shown in [Figure 12](#).
3. Enter **ovsam_event_unix** in the Name field and click the **Add** button to open the New External Class window.

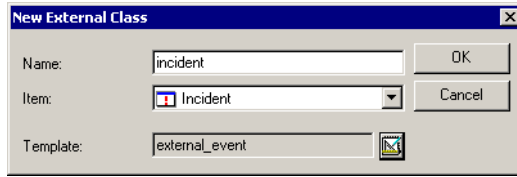


Figure 24: New External Class Window

4. In the New External Class window, type **incident** in the Name field and select **Incident** in the Item field's list box. In the Template field, select **external_event** from the available templates.
5. Click **OK** to display the available attributes for external_event template in the Field Mapping pane as shown in the figure below:

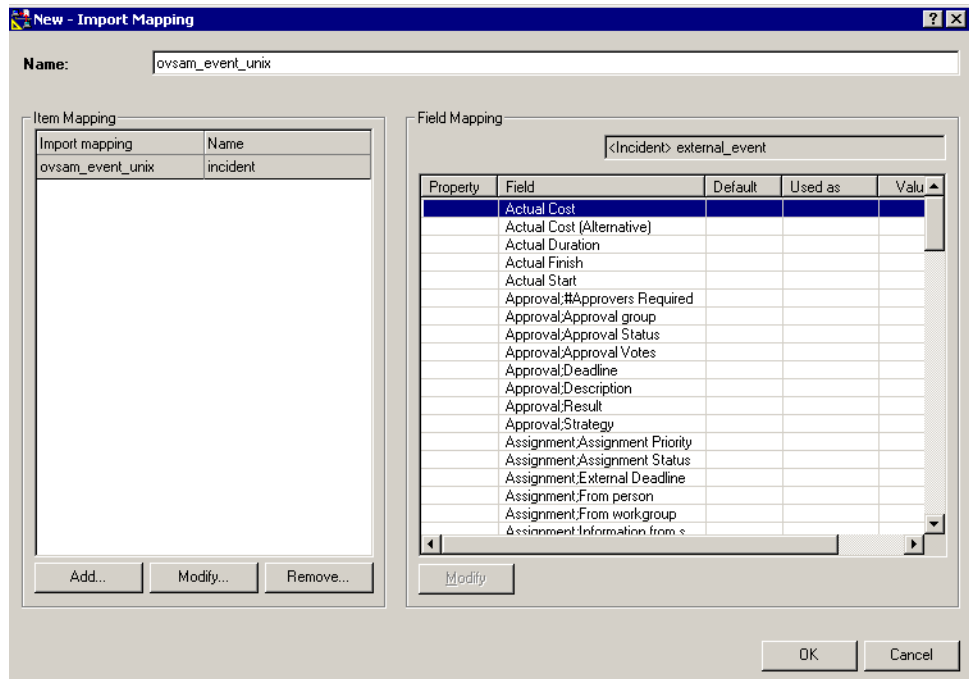


Figure 25: New Import Mapping Window for Forwarding the Event from OVO Unix to Service Desk

- The next step is to associate the Internal Attributes with the External Property. Double-click on the entry which has a field value of Classification. The Field Mapping - Classification window opens.

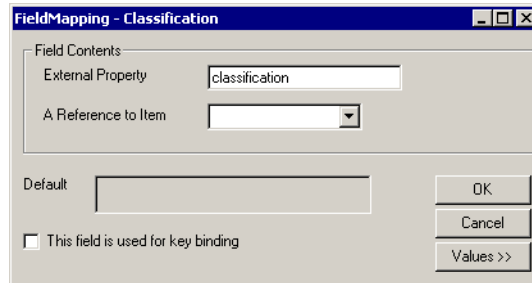


Figure 26: Field Mapping - Classification Window

- Type **classification** in the External Property field and click **OK**.
- Repeat the same procedure for associating the Internal Attribute to the External Property for the fields shown in the table below.

Table 8: Fields Required to be Mapped for Forwarding Events from OVO Unix

Internal Attribute	External Property
Categor&y	category
Status	status
Solution	solution
Impact	impact
Information	information
Description	description

- Double-click on the entry which has a field value of Configuration Item. The Field Mapping - Configuration Item window opens.

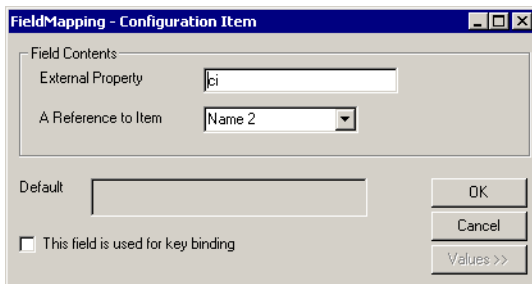


Figure 27: Field Mapping - Configuration Item Window

10. Type **ci** in the External Property field and choose **Name 2** in the A Reference to Item field and click **OK**.
11. Double-click on the entry which has a field value of Source ID. The Field Mapping-Source ID window opens.

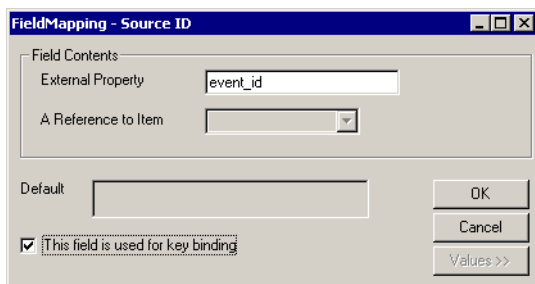


Figure 28: Field Mapping - Source ID Window

12. Type **event_id** in the External Property field and check **This field is used for key binding** check box and click **OK**.
13. Double-click on the entry which has a field value of **Priority**. The Field Mapping -Priority window opens.

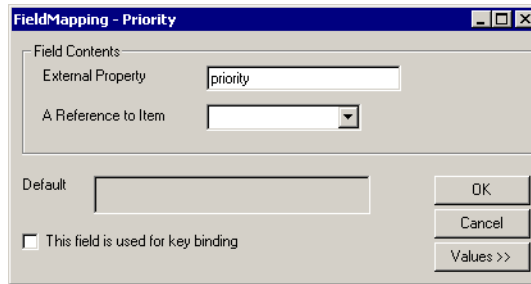


Figure 29: Field Mapping - Priority Window

14. Type **priority** in the External Property field and click on the **Values>>** button to get the Value Mapping pane as shown below

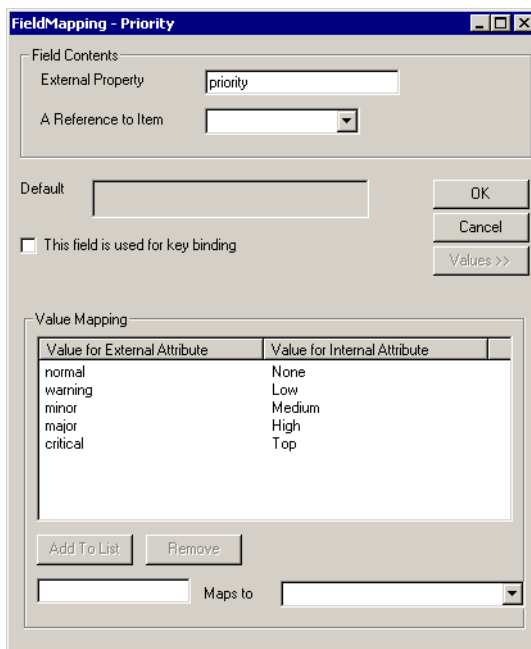


Figure 30: Value Mapping for Priority field

- In the Value Mapping pane, enter **normal** in the text box provided to the left of the Maps to and choose **None** from the drop-down list provided to the right of the Maps to. Click the **Add To List** button. Repeat this procedure for the entries shown in the table below.

Table 9: Value Mapping Required for Priority Field

Value for External Property	Value for Internal Attribute
warning	Low
minor	Medium
major	High
critical	Top

- Click **OK** in the Field Mapping - Priority window to store the field mapping created for the Priority field and click **OK** in the New Import Mapping window shown in [Figure 25](#) to store the newly created import mapping.

For OVO on Windows:

- From the **Tools** menu of Service Desk client, click **System -> Data Exchange -> Import Mapping**. The Import Mapping window opens as shown in [Figure 11](#).
- Right-click anywhere on the Import Mapping window and select **New Import Mapping**. The New Import Mapping window opens as shown in [Figure 12](#).
- Enter **ovsam_event_windows** in the Name field and click the **Add** button to open the New External Class window as shown in [Figure 24](#).
- In the New External Class window, type **incident** in the Name field and select **Incident** in the Item field's list box. In the Template field, select **external_event** from the available templates.

- Click **OK** to display the available attributes for external_event template in the Field Mapping pane as shown in the figure below:

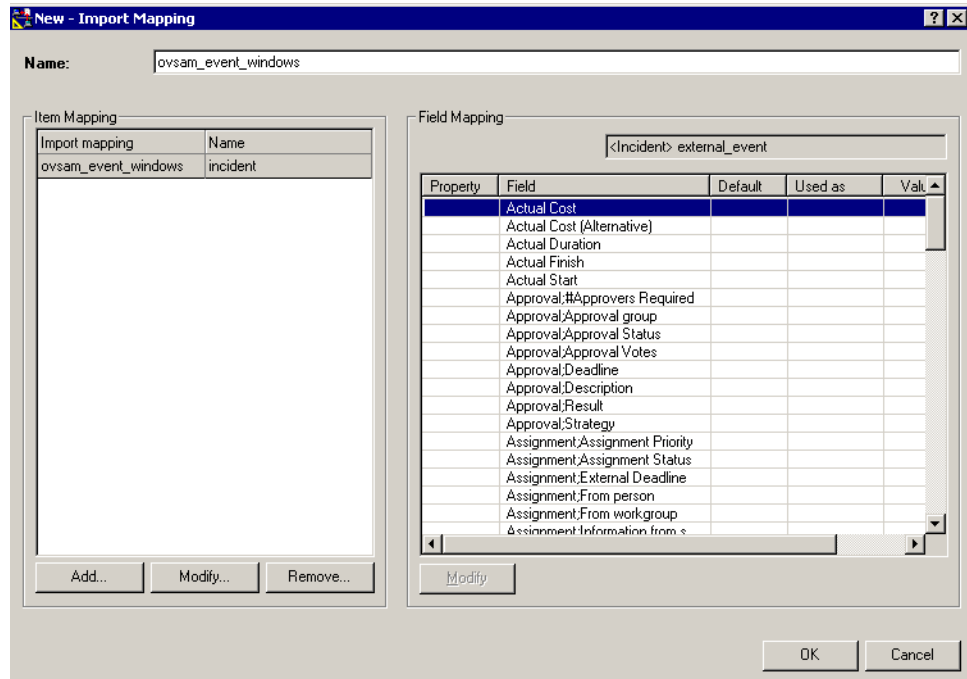


Figure 31: New Import Mapping Window for Forwarding Events from OVO Windows to Service Desk

- The next step is to associate the Internal Attributes with the External Property. Double-click on the entry which has a field value of **Classification**. The Field Mapping - Classification window opens as shown in [Figure 26](#).
- Type **classification** in the External Property field and click **OK**.

8. Repeat the same procedure for associating the Internal Attribute to the External Property for the fields shown in the table below.

Table 10: Fields Required to be Mapped for Forwarding Events from OVO Windows

Internal Attribute	External Property
Category&y	category
Status	status
Solution	solution
Priority	priority
Information	information
Description	description

9. Double-click on the entry which has a field value of **Configuration Item**. The Field Mapping-Configuration Item window opens as shown in [Figure 27](#).
10. Type **ci** in the External Property field and choose **Name 2** in the A Reference to Item field and click **OK**.
11. Double-click on the entry which has a field value of **Source ID**. The Field Mapping-Source ID window opens as shown in [Figure 28](#).
12. Type **event_id** in the External Property field and check **This field is used for key binding** check box and click **OK**.
13. Double-click on the entry which has a field value of **Impact**. The Field Mapping - Impact window opens

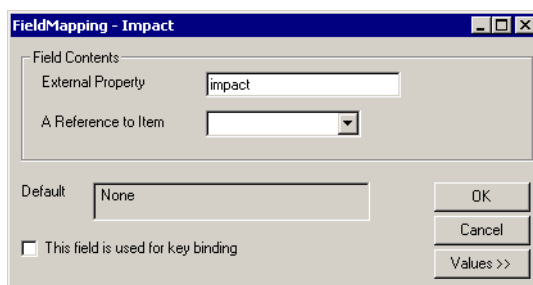
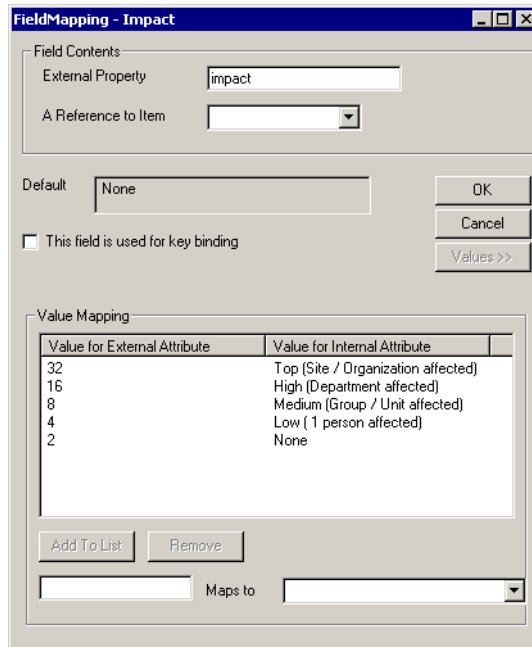


Figure 32: Field Mapping for Impact

14. Type **impact** in the External Property field and click on the **Values>>** button to get the Value Mapping pane as shown below



The screenshot shows a dialog box titled "FieldMapping - Impact". It has several sections:

- Field Contents:** "External Property" is set to "impact". "A Reference to Item" is a dropdown menu.
- Default:** A text box containing "None".
- Buttons:** "OK", "Cancel", and "Values >>".
- Checkbox:** "This field is used for key binding" is unchecked.
- Value Mapping:** A table with two columns: "Value for External Attribute" and "Value for Internal Attribute".

Value for External Attribute	Value for Internal Attribute
32	Top (Site / Organization affected)
16	High (Department affected)
8	Medium (Group / Unit affected)
4	Low (1 person affected)
2	None

Below the table are "Add To List" and "Remove" buttons. At the bottom, there is a "Maps to" label with two empty text boxes and a dropdown arrow.

Figure 33: Value Mapping for Impact Field

15. In the Value Mapping pane, enter **32** in the text box provided to the left of the Maps to and choose **Top (Site/Organization affected)** from the drop-down list provided to the right of the Maps to. Click **Add To List** button. Repeat this procedure for the entries shown in the table below.

Table 11: Value Mapping Required for Impact Field

Value for External Property	Value for Internal Attribute
16	High (Department affected)
8	Medium (Group/unit affected)
4	Low (1 person affected)
2	None

16. Click **OK** in the Field Mapping - Impact window to store the field mapping created for the Impact field and click **OK** in the New Import Mapping window shown in [Figure 31](#) to store the newly created import mapping.

Note: Refer to the *HP OpenView Service Desk 4.0 Data Exchange Administrator's Guide* for creating the import mappings.

Acknowledging the OVO events from Service Desk

The following configuration tasks need to be performed on the OVO Windows server for acknowledging the events on OVO Windows server when a corresponding incident gets closed on the Service Desk server.

The Storage Area Manager SPI forwards the Storage Area Manager related events from OVO (Windows and Unix) to Service Desk. To acknowledge these forwarded events on OVO Windows when they are closed on Service Desk side, follow the steps below:

1. Open the file named as **Vpw-Sd.vbs** available in **%OV_PATH%\bin\tools** directory.
2. Replace all references of **root/HewlettPackard/OpenView/VantagePoint** in the file with **root/HewlettPackard/OpenView/Data**.
3. Save and close the file.

Note: No manual configuration is required for acknowledging the events on the OVO Unix server.

Configuration for Service Desk 4.5



- [Importing hp OpenView storage area manager settings](#), page 66
- [Select geographical location for importing OpenView SAM devices](#), page 69
- [Forwarding events from OVO](#), page 71

Importing hp OpenView storage area manager settings

The first step in the configuration process is to import the following settings into Service Desk:

- Storage Area Manager CI Categories
- Template for importing Storage Area Manager devices
- Import mapping for Storage Area Manager devices
- Data exchange task for importing Storage Area Manager devices
- Import mappings required for forwarding events from OVO Unix and Windows

Follow the steps below to import the above settings:

1. Open the Service Desk client.
2. On the **Tools** menu, click **System** to open the **Administrator console**.
3. In the **Administrator console** select **File -> Aces -> Aces Import Wizard**.
4. On the first page of the ACES Import Wizard click **Next**.



Figure 34: ACES Import Wizard

5. Select the ACES XML file. To select ACES XML file do following:

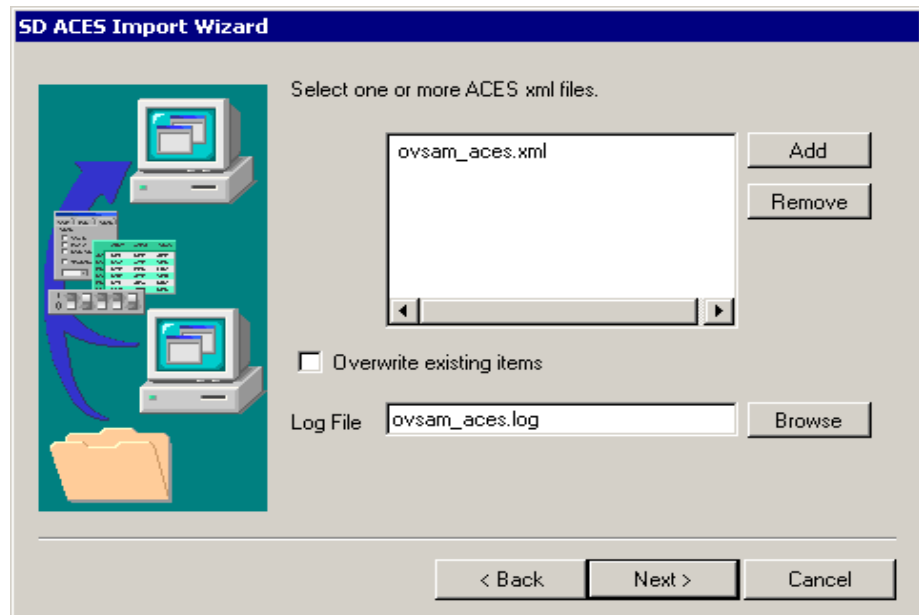


Figure 35: Import file selection

- a. Click **Add**.
 - b. Browse to the **data_exchange\xml** directory and select the **ovsam_aces.xml** file.
 - c. Specify the name of the log file as **ovsam_aces.log**.
 - d. Clear the **Overwrite existing items** checkbox.
 - e. Click **Next**.
6. Click **Start import**. The status of the import is indicated in the progress bar. During the import process you will be shown information regarding the status of the import. During the import process the **Next** and **Back** buttons are disabled. At the end of the import process you are automatically sent to the next page of the wizard.

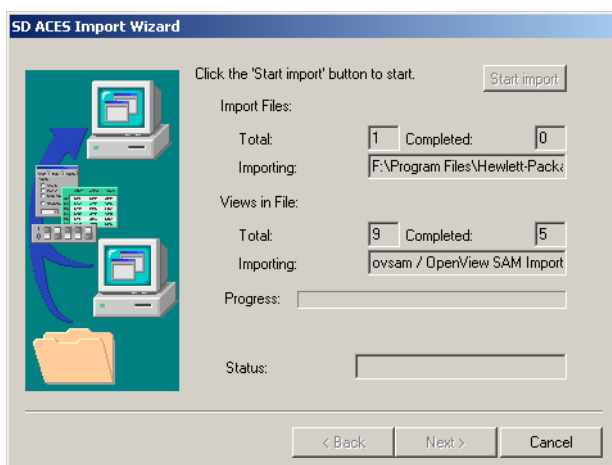


Figure 36: Import progress screen

7. View the Import log by clicking on **View logfile**. There should not be any error messages in log file.



Figure 37: Import completed

8. Select the option **Close the Wizard** and then **Finish**.

Select geographical location for importing OpenView SAM devices

Location is the mandatory field for the template which is used for importing the storage area manager devices. To select the location follow the steps below:

1. Open the Service Desk Client.
2. On the **Tools** menu, click **System** to open the **Administrator console**.
3. In the left pane of **Administrator console**, click **Data -> Template -> Configuration Item** to open the available templates window in the right pane as shown below:

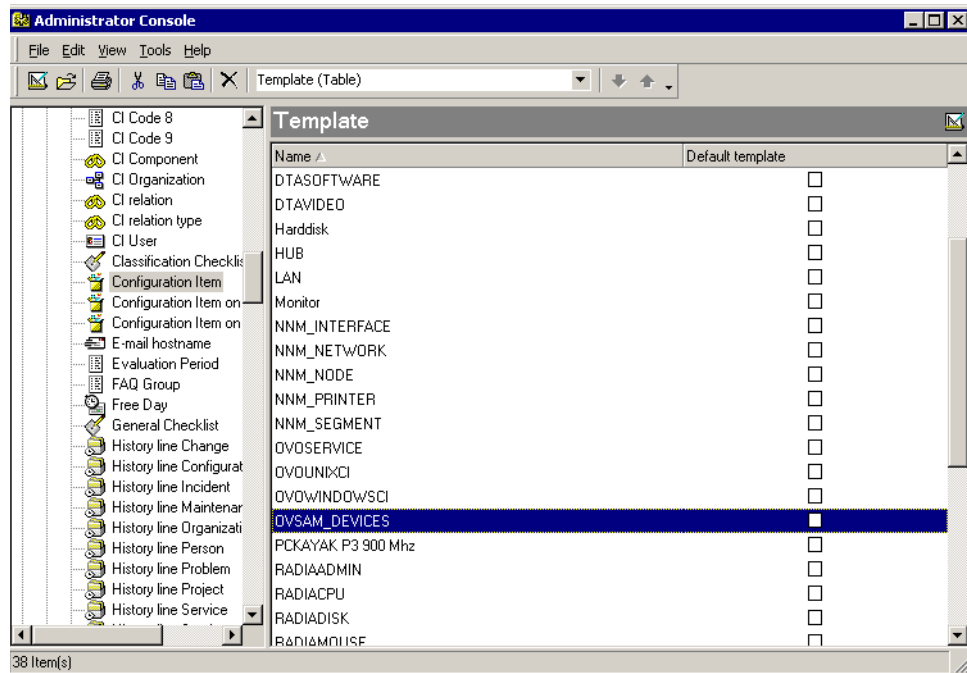


Figure 38: Template Window

4. Double click on **OVSAM_DEVICES** template to display OVSAM_DEVICES - Template window as shown below:

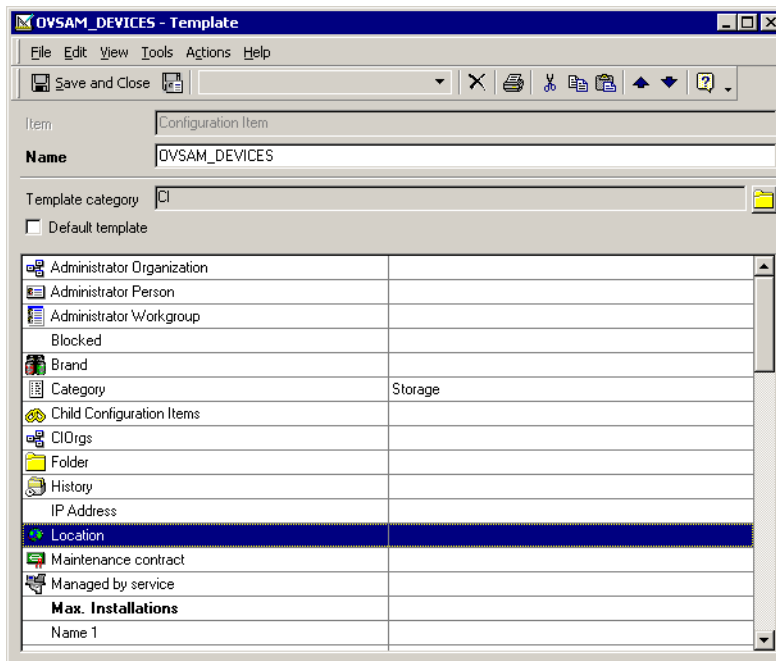


Figure 39: OVSAM_DEVICES template

5. Double click on **location** field to display the location window:

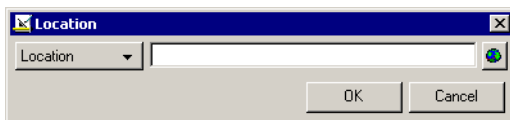


Figure 40: Location selection window

6. Select the appropriate geographical location by clicking the **browse** button located at right hand side and click **OK**.
7. Save and close the **OVSAM_DEVICES** template window.

Forwarding events from OVO

The following configurations need to be done on the OVO server to forward the events from OVO to Service Desk:

- Modify the configurable extractor file on OVO Unix server
- Modify the configurable extractor file on OVO Windows server

Modify the configurable extractor file on OVO Unix server

The file `ovsam_event_unix.ini` is a configurable extractor used to extract information from OpenView operations. It can be found in the `/opt/OV/OVSAMSPI/sdevent` folder. You will need to update the `ACCOUNT` and `SERVER` entries in the configuration file, as a minimum requirement. A copy of the `ovsam_event_unix.ini` file follows:

```
[SD_EVENT]
SERVER=sd_application_server
ACCOUNT=OVU_server/password
LOGFILE=ovsam_event.log
ERROR_LOG_FILE=ovsam_event_error.log
PORT=30980
CLASSNAME=incident
MAPPING=ovsam_event_unix
MODUS=insert
LANGUAGE=GB
```

Note: Refer to chapter 4 “OVO UNIX and Service Desk Configuration” in the *HP OpenView Service Desk 4.5 OpenView Operations Integration Administrator's Guide* for details.

Modify the configurable extractor file on OVO Windows server

Modify the configurable extractor **ovsam_event_windows.ini**. The default location is: **%OvInstallDir%\bin\OVSAMSPI**. You will need to update the **ACCOUNT** and **SERVER** entries, as a minimum requirement. A copy of **ovsam_event_windows.ini** file follows:

```
[SD_EVENT]
SERVER = sd_application_server
ACCOUNT = OVW_server/password
LOGFILE = ovsam_event.log
ERROR_LOGFILE = ovsam_event_error.log
PORT = 30980
CLASSNAME = incident
MAPPING = ovsam_event_windows
MODUS = insert
LANGUAGE = GB
```

Note: Refer to chapter 3 “OVO for Windows and Service Desk Configuration” in the *HP OpenView Service Desk 4.5 OpenView Operations Integration Administrator's Guide* for details.

Using

5

- [Importing OVO managed nodes as CIs](#), page 74
- [Importing hp OpenView storage area manager devices as CIs](#), page 75

Importing OVO managed nodes as CIs

Storage Area Manager Service Desk integration uses the Service Desk VantagePoint/ OpenView Operations integration to import OVO managed nodes. The following sections describe the procedure to import OVO managed nodes from UNIX and Windows OVO servers.

Import OVO managed nodes from UNIX server

For Service Desk 4.0

Refer to chapter 4 “VP UNIX and Service Desk Configuration” section “Importing Nodes Into Service Desk” in the *HP OpenView Service Desk 4.0 VantagePoint Operation Integration Administrator's Guide* for details.

For Service Desk 4.5

Refer to chapter 4 “OVO UNIX and Service Desk Configuration” section “Importing Nodes Into Service Desk” in the *HP OpenView Service Desk 4.5 OpenView Operations Integration Administrator's Guide* for details.

Import OVO managed nodes from Windows server

For Service Desk 4.0

Refer to chapter 4 “VPO for Windows and Service Desk Configuration” section “Importing Nodes Into Service Desk” in the *HP OpenView Service Desk 4.0 VantagePoint Operation Integration Administrator's Guide* for details.

Note: When importing OVO managed nodes from Windows OVO 7.X server ensure that Service Desk Extractor INI file `vpwindowsci.ini` should use the namespace `root\HewlettPackard\OpenView\Data`.

For Service Desk 4.5

Refer to chapter 3 “OVO for Windows and Service Desk Configuration” section “Importing Nodes Into Service Desk” in the *HP OpenView Service Desk 4.5 OpenView Operations Integration Administrator's Guide* for details.

Importing hp OpenView storage area manager devices as CIs

Creating device information file

The SamCIExtractor program, which is included with the Storage Area Manager Service Desk integration, queries the Storage Area Manager bridge for collecting information regarding the devices managed by the Storage Area Manager. It collects the information such as Device Name, IP Address (if available) etc. and stores it in the samrecords.txt file. This file is given as an input to the import/export process.

Note: For details on how to configure the Storage Area Manager bridge, refer to chapter 7, "Configuring the Bridge," in the *hp OpenView storage area manager administrator's guide*.

Follow the steps below to create the samrecords.txt file:

1. Open the command prompt by typing **cmd** from the Windows Run dialog.
2. At the command prompt, change the directory to the path where the Storage Area Manager Service Desk integration is installed.
3. Type **SamCIExtractor** at the command prompt and press **Enter**.
 - a. At the prompt:
Enter the HP OpenView SAM Bridge hostname:
Type the **<HP OpenView SAM Bridge hostname>** and press **Enter**.
 - b. At the prompt:
Enter the HP OpenView SAM Bridge port:
Type the **<HP OpenView SAM Bridge Port>** and press **Enter**.

- c. At the prompt:
Enter the HP OpenView SAM username:
Type the **<HP OpenView SAM username>** and press **Enter**.
- d. At the prompt:
Enter the HP OpenView SAM password:
Type the **<HP OpenView SAM password>** and press **Enter**.
- e. At the prompt:
Re-enter password:
Confirm the **<HP OpenView SAM password>** and press **Enter**.
4. The following messages are displayed:
SamCIExtractor Starting to query <Server> at port <Port>....
Successfully created samrecords.txt file
5. Note that there should not be any error messages on your console.

Start data exchange task to import hp OpenView storage area manager devices as CIs

1. Open the Service Desk client.
2. From the **Tools** menu of Service Desk client, click **System -> System Panel -> General Settings**.

In Service Desk version 4.0 the General Settings window would appear as shown below:

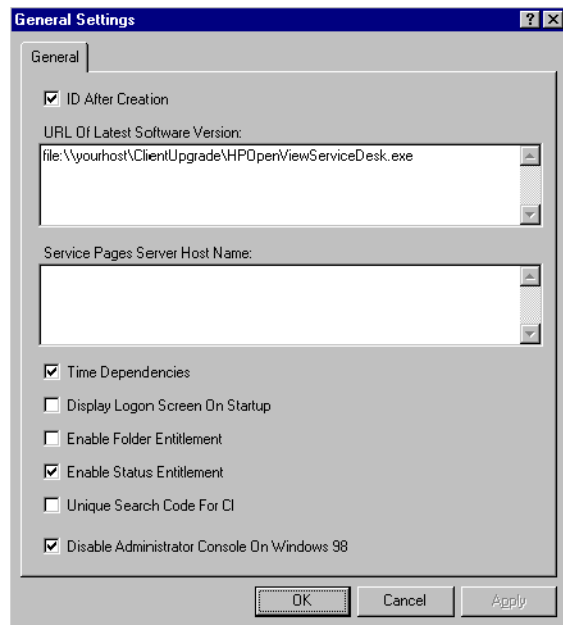


Figure 41: General Settings Window

In Service Desk version 4.5 the General Settings window would appear as shown below:

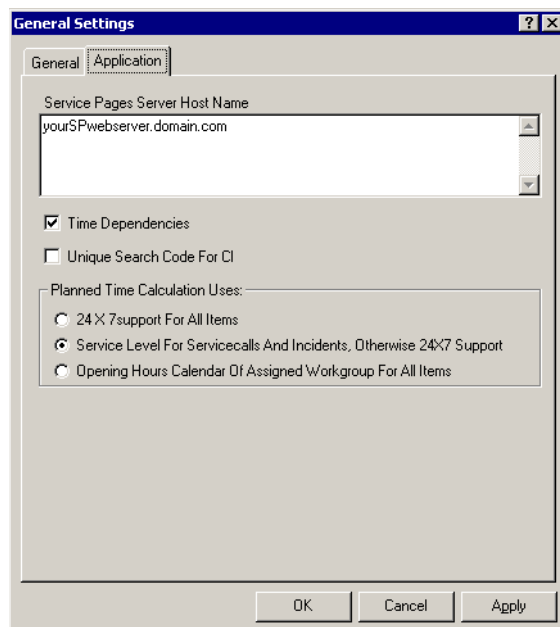


Figure 42: General Settings Window

3. Uncheck the **Unique Search Code For CI** check box as shown in the figures above and click **OK**.

Note: After importing Storage Area Manager devices, set the **Unique Search Code For CI** check box to the original settings.

4. From the **Tools** menu of Service Desk client, click **System -> Data -> Data Exchange -> Data Exchange Task**. The Available Tasks window opens.
5. From the Available Tasks window, open the SamCIExtractor task by double-clicking it.

6. Type the password into the Password field and start the export/import process by pressing the **Start** button. The Import Progress window appears as shown below:

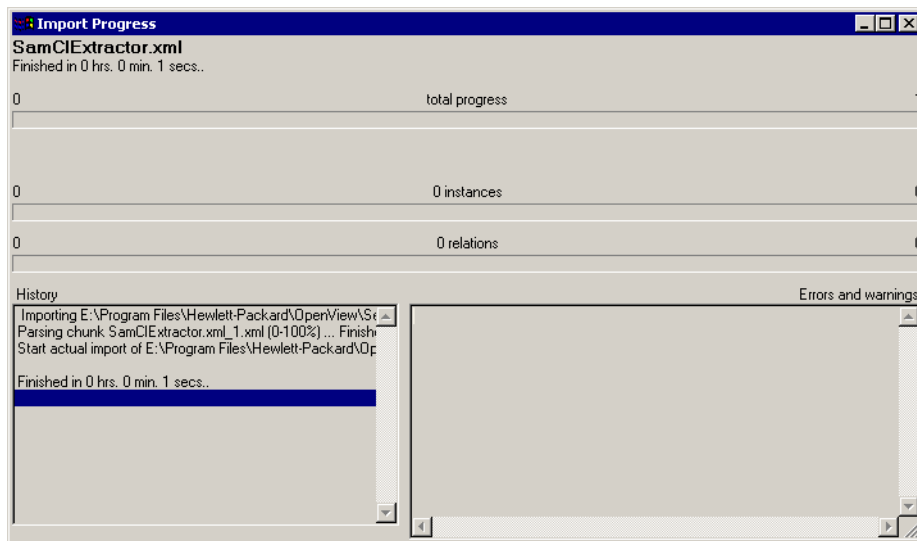


Figure 43: Import Progress Window

7. There should not be any errors or warning messages in the Import Progress window, as shown in the figure above.
8. Close the Import Progress window and the Data Exchange dialog box and see the added configuration items under appropriate CI categories. The figure below shows a sample of Storage Area Manager devices imported as configuration items.

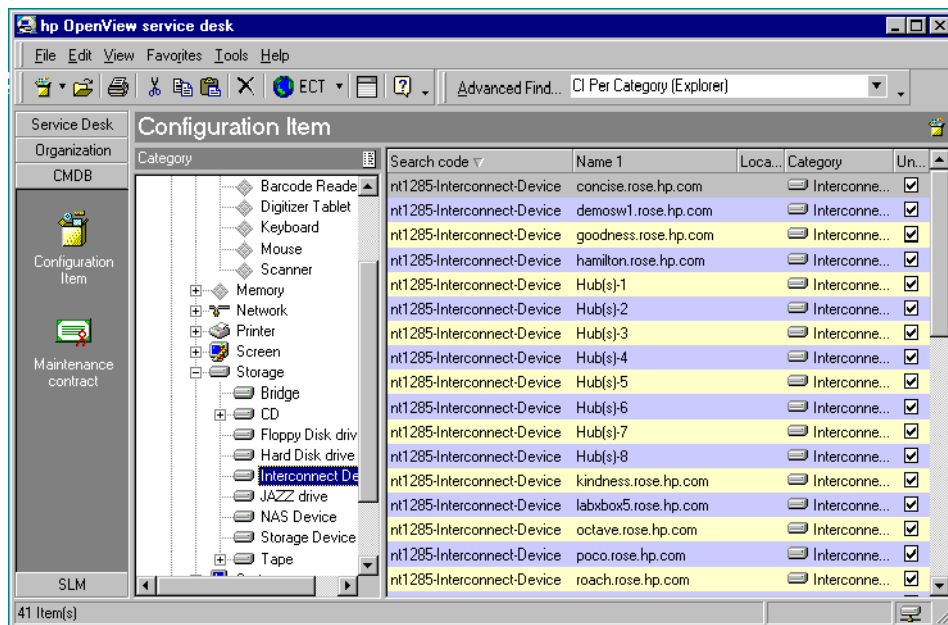


Figure 44: Sample Imported Configuration Items for Storage Devices

- Restart the Service Desk Service from **Start -> Programs -> hp OpenView service desk 4.0 -> Tools -> Restart hp OpenView service desk Server service**.

Note: Restarting Service Desk Service is required to map the events forwarded to the Service Desk with the imported configuration items.

Troubleshooting



- [Events do not get forwarded/acknowledged from/on OVO](#), page 82
- [Mapping of the forwarded events with CIs On Service Desk](#), page 83
- [Log files for forwarded events from OVO to Service Desk](#), page 84

Events do not get forwarded/acknowledged from/on OVO

Symptom	Cause/Solution
<p>I get a message "Successfully forwarded the event from OVO (Windows) to Service Desk" in the Annotation field of the OVO Windows server, but I am not able to see the corresponding event as incident on the Service Desk server.</p>	<p>Check to ensure that the ovsam_event_windows.ini file is modified correctly. Refer to page 53 for details.</p> <hr/> <p>Restart the OVO agent on the OVO management server by issuing opcagt -kill and opcagt -start commands.</p> <hr/> <p>Verify that OVO Windows systems have the permissions to access the HTTP services offered by Service Desk. To verify do this:</p> <ol style="list-style-type: none"> a. Open Server Settings Editor on Service Desk server. b. On the Server Configuration window, select the HTTP tab. c. Ensure that the IP address of the OVO Windows server is present in Accept IP addresses field.
<p>I get a message "Failed to forward the event from OVO (Unix) to SD (Service Desk)" in the Annotation field of the OVO Unix server.</p>	<p>Verify that OVO Unix systems have the permissions to access the HTTP services offered by Service Desk:</p> <ol style="list-style-type: none"> a. Open Server Settings Editor on Service Desk server. b. On the Server Configuration window, select the HTTP tab. c. Ensure that the IP address of the OVO Unix server is present in Accept IP addresses field.
<p>Events do not get forwarded/acknowledged from/on OVO UNIX</p>	<p>Verify that the users storage_op and Service Desk in OVO have access to the events belonging to OpenView-SAM message group and OpenView SAM related node groups.</p>

Mapping of the forwarded events with CIs On Service Desk

Symptom	Cause/Solution
I see the incident on the Service Desk without any entry in the Configuration Item field.	Check to ensure that the import mappings <code>ovsam_event_windows</code> and <code>ovsam_event_unix</code> are set correctly. Refer to page 53 for details.
	Restart the Service Desk Service from Start -> Programs -> hp OpenView service desk 4.0 -> Tools -> Restart hp OpenView service desk Server service.
	Note: If the configuration item corresponding to the incident is not present in the Service Desk, the CI field would be blank.

Log files for forwarded events from OVO to Service Desk

The following log files are available for trouble shooting purpose:

1. sd_event.log and ovsam_event.log: These log files contain information about the forwarded events.
2. sd_event_error.log and ovsam_event_error.log: These log files contain information about errors that occurred while forwarding the events.

The locations of the above log files on OVO UNIX and Windows servers for Service Desk 4.0 and 4.5 are given in the table below:

Table 12: Log file locations for forwarded events from OVO to Service Desk

File	Location
<i>Service Desk 4.0 integrated with OVO UNIX</i>	
sd_event.log	/opt/OV/SD/bin/
sd_event_error.log	/opt/OV/SD/bin/
ovsam_event.log	/opt/OV/SD/bin/
ovsam_event_error.log	/opt/OV/SD/bin/
<i>Service Desk 4.0 integrated with OVO Windows</i>	
sd_event.log	%OvInstallDir% bin\OVSAMSPI\
sd_event_error.log	%OvInstallDir% bin\OVSAMSPI\
ovsam_event.log	%OvInstallDir% bin\OVSAMSPI\
ovsam_event_error.log	%OvInstallDir% bin\OVSAMSPI\
<i>Service Desk 4.5 integrated with OVO UNIX</i>	
sd_event.log	/opt/OV/sd/ovo/log/
sd_event_error.log	/opt/OV/sd/ovo/log/
ovsam_event.log	/opt/OV/sd/event/bin/
ovsam_event_error.log	/opt/OV/sd/event/bin/
<i>Service Desk 4.5 integrated with OVO Windows</i>	
sd_event.log	%SD_OVWHOME%log\
sd_event_error.log	%SD_OVWHOME%log\
ovsam_event.log	%OvInstallDir% bin\OVSAMSPI\
ovsam_event_error.log	%OvInstallDir% bin\OVSAMSPI\

Uninstalling



- [Uninstalling the hp OpenView storage area manager Service Desk integration](#), page 86

Uninstalling the hp OpenView storage area manager Service Desk integration

This section describes how to uninstall the following integrations from the system:

- hp OpenView Storage Area Manager Service Desk 4.0 integration
- hp OpenView Storage Area Manager Service Desk 4.5 integration

To uninstall follow the steps below:

1. Select **Add/Remove** from the Windows Control Panel.
2. Select the entry **hp OpenView SAM Service Desk Integration (03.10.00)** from the list and click **Remove**.

Note: As there is only one entry in the Add/Remove Programs window for the above two integrations, you cannot remove these integrations separately. If you have installed only one integration on the system, then that will get removed after uninstallation. If you have installed two integrations on the system then both of them will get removed after uninstallation.

This will remove the programs, DLLs, zip/jar files, configuration files, documents and Data Source Names (DSNs) created using Microsoft ODBC text driver for the installed integration/s.

hp OpenView storage area manager Service Desk Integration does not remove the GUI components automatically during the uninstallation of the product. The GUI components should be removed manually in the following order:

- hp OpenView storage area manager specific CI categories.
- Configuration Item template **OVSAM_DEVICES**.
- Import mappings **ovsam_import**, **ovsam_event_unix** and **ovsam_event_windows**.
- Data Exchange task created for importing Storage Area Manager devices as CIs in Service Desk.