HP OpenView Storage Data Protector

Release Notes
for
HP OpenView Operations for Windows Integration

Version: B.05.03

HP-UX, Solaris and Windows

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1 HP OpenView Storage Data Protector Integration - Release Notes

Announcement

The following is for version B.05.03 of HP OpenView Storage Data Protector Integration.

The Data Protector Integration provides a solution to monitor Data Protector health, status and performance. It allows the user to proactively detect and solve technical issues with multiple Data Protector cells from a single console.

Data Protector is HP OpenView's backup product that provides reliable protection and high accessibility for data. It offers backup and restore functionality tailored for enterprise-wide and distributed environments.

Data Protector's component concept proves to be flexible in an environment where elements of the backup infrastructure are placed on different networked systems. It scales from a single system to thousands of systems on several sites. Multiple backup environments can be managed from a single management system (Cell Manager) and multiple administrators may access Data Protector using a graphical user interface (GUI) from various systems simultaneously.

HP OpenView Operations (OVO) is HP OpenView's operations and problem management product for multi-vendor systems. OVO is a distributed client/server solution to help system administrators detect, solve, and prevent problems occurring in networks, on systems, and in applications in a multi-vendor, enterprise-wide, and distributed environment. The client/server concept of OVO is based on agent processes running on managed nodes and management server processes running on a central management system. The agent processes collect and process data and events on the managed nodes, and forward relevant information as messages to the management server. The message is displayed in a browser on the management server and may be responded with an automatic action. Based on the HP OpenView Performance Agent performance data can be collected over a time interval, metrics can be displayed graphically and alarm messages are generated based on performance thresholds.

The HP OpenView Storage Data Protector Integration for Data Protector is a software package that instruments the OVO Agent running on one or more Data Protector Cell Managers to collect events, monitor logfiles and watch for essential processes to run. In the event of problems arising, messages are displayed in the OVO consoles message browser and the Data Protector service tree in the OVO Service Navigator displays any impact to Data Protector in general.

What's in This Version

The HP OpenView Storage Data Protector Integration comes with the following features:

- Centralized problem management using OVO agents at the Data Protector cell manager. The use of a central OVO management server for multiple Data Protector cell managers avoids duplicated administrative effort

- Real-time event and configuration information - including on-line instructions - for fast problem resolution

- Powerful monitors to detect potential problem areas and to keep track of Data Protector events

- Performance data collectors to detect Data Protector performance bottlenecks

- Performance data collection, monitoring, and reporting

- Central data repository for storing event records and action records for all managed Data Protector cell managers

- Integrated Data Protector GUI for managing multiple Data Protector cells from a single point, the OVO Management Server.

- The integration with Reporter Light provides reports on Backup Session, Data, and Trend by directly fetching the necessary data from the Data Protector Cell Servers.

- Users are able to visualize the state of health of their Data Protector Cell Managers and overall backup environment by examining the Backup Session, Data, and Trend reports available with the Reporter Light integration that is part of OVO for Windows.

Known Problems and Workarounds

There are no known problems in HP OpenView Storage Data Protector Integration, version B.05.03.

Compatibility Information and Installation Requirements

This section lists the software and hardware prerequisites that you must fulfil for the management server and managed nodes, before you install HP OpenView Storage Data Protector Integration, version B.05.03.

The HP OpenView Storage Data Protector Integration is used to monitor and manage the health and performance of Data Protector environments. You can manage one or more Data Protector cells with the HP OpenView Storage Data Protector Integration. It should only be installed in an environment consisting of:

- One or more systems running OVO management server

- One or more OVO agents running on systems with the Data Protector Cell manager

It is only guaranteed to work in these environments.

Before starting the Data Protector Integration installation process, make sure that the following requirements are met:

- Ensure that your system meets all requirements, as detailed in Supported Platforms and Installation Prerequisites.

- For each Data Protector server, note:

    — an Data Protector administrator 's username

    — the password assigned to the user.

Supported Platforms and Installation Prerequisites

The HP OpenView Storage Data Protector Integration is used to monitor and manage the health and performance of Data Protector environments. You can manage one or more Data Protector cells with the HP OpenView Storage Data Protector Integration. It should only be installed in an environment consisting of:

- One or more systems running OVO management server.

- The OVO Console and the Data Protector Console must be installed on the system where the Data Protector Integration Console is to be installed.

- OVO agent running on systems with the Data Protector Cell manager.

It is only guaranteed to work in these environments.

Before starting the Data Protector Integration installation process, make sure that the following requirements are met:

Data Protector Supported Versions

The Data Protector Integration is designed to work with HP OpenView Storage Data Protector, version 5.03 on the following platforms:

Table 1-1   **HP OpenView Storage Data Protector Availability**

Operating System	Data Protector Version 5.03
HP-UX 11.00	✔
HP-UX 11.11	✔
HP-UX 11i	✔
Solaris 7	✔
Solaris 8	✔
Solaris 9 (OVO A.07.10 English Agent only)	✔
Microsoft Windows NT 4.0 with SP6A (Workstation, Server and Enterprise Edition)	✔
Microsoft Windows 2000 with SP3 (Professional, Server, Advanced Server, Data Center)	✔
Microsoft Windows XP Professional (32 bit), Microsoft Windows Server 2003.	✔

OVO Management Server System

HP OpenView Operations management servers are supported on the following platforms. The OVO server can run on a different host system than the system where the Data Protector Cell Manager is installed.

HP OpenView Operations and HP OpenView Service Navigator is installed and configured on a system running one of the following Operating systems:

Table 1-2   OVO Management Server Supported Versions

OVO version[a] Operating System	OVO 7.1	OVO 7.20
Microsoft Windows 2000 with SP3 (Professional, Server, Advanced Server, Data Center)	✔	✔

   a. English, and Japanese.

OVO Patches Please ensure that the following minimum patches are installed.

Table 1-3   Patches for OVO (version A.07.10)

Patch Number	Description
OVOW_00050.exe	OVO Management Server patch
OVOW_00012.exe	Message Action Windows Agent patch
OVOW_00016.exe	Windows OS SPI Management Server patch

Software Prerequisites on the OVO Management Server Please ensure that the following software is installed on the OVO management server system:

- HP OpenView Operations for Windows. The console is installed and configured on the HP OpenView Operations management server system or other appropriate systems.

- The HP OpenView Storage Data Protector Console is installed on the HP OpenView Operations management server system.

Hardware Prerequisites on the OVO Management Server Please ensure that the following hardware prerequisites are met on the OVO management server system:

- 5 MB disk space on the HP OpenView Operations management server system to install components necessary for the Data Protector Integration.

Managed Node Systems (Data Protector Cell Manager)

A number of agents and the Data Protector Integration are required for the complete management of Data Protector environments. The required components that must be installed on the managed node system hosting the Data Protector Cell Manager are:

• HP OpenView Operations Agent

• HP OpenView Performance Agent

Supported OVO Agent Versions

The Data Protector Cell Manager installation must be made on a platform for which the OVO Agent is available. Please refer to Table 1-4 for details of the available agent versions and ensure that the appropriate version is installed:

Table 1-4 **HP OpenView Operations Agent Availability**

Operating System	OVO Agent Version
HP-UX 11.00	A.07.10 or higher
HP-UX 11.11	
HP-UX 11i	
Solaris 7, 8, 9	
Microsoft Windows NT 4.0, 2000, XP	

Supported HP OpenView Performance Agent Versions If the OVP is to be installed, the Data Protector installation must be made on a platform for which the OVP is available. Please refer to Table 1-5 for details of the available agent versions.

Table 1-5 **HP OpenView Performance Agent Availability**

Operating System	OVP Version
HP-UX 11.00	C.03.70 or higher
HP-UX 11.11	
Solaris 7	C.03.75 or higher
Solaris 8	
Microsoft Windows NT 4.0, 2000, XP	C.03.65 or higher

Additional Software for HP-UX Managed Nodes

The following software is not installed as part of the OVO management server installation nor as part of the Data Protector Integration installation. Please refer to each product section to check whether they are required or optional.

SNMP Emanate Agent (required) The SNMP Emanate Agent is necessary to capture SNMP traps sent by the Data Protector Cell Manager on the same system and to let the OVO Agent forward any matching SNMP trap events as OpC messages to the OVO management server. This is called *Distributed Event Interception*, since the SNMP traps are intercepted on a managed node and not on the OVO management server.

The advantages, especially for large enterprise environments with a high number of Data Protector Cell Managers, are:

• The solution scales better: Additional Data Protector Cell Managers do not put additional load on the management server as the processing of SNMP traps is done on the managed node.

• Any automatic action configured as a response to an SNMP trap can be triggered and run locally on the managed node without involvement of the management server.

• Since no SNMP trap is sent from the managed node to the management server, the network load decreases.

• The probability that SNMP traps are lost is significantly reduced as these are not transmitted over the network.

• Security over (public) networks is increased, since SNMP traps do not use a network and are sent, received and processed only on the managed node. OpC messages are sent by the OVO agent to the OVO management server using DCE/RPCs, which allows authentication and encryption.

How to Check the SNMP Emanate Agent is Installed

Please check that the SNMP Emanate Agent is installed on the Data Protector Cell Manager node using the command:

```
# swlist -l product -a description OVSNMPAgent
```

You should see the following type of entry:

```
# OVSNMPAgent               B.11.00 HPUX_10.0_SNMP_Agent_Product
  OVSNMPAgent.MASTER        B.11.00 MASTER
  OVSNMPAgent.SUBAGT-HPUNIX B.11.0  SUBAGT-HPUNIX
  OVSNMPAgent.SUBAGT-MIB2   B.11.0  SUBAGT-MIB2
```

Additional Software for Windows Managed Nodes

The following software is neither installed as part of the OVO management server installation nor as part of the Data Protector Integration installation. Please refer to each product section to check whether they are required or optional.

SNMP Service (required) In order to send the Data Protector SNMP traps to the OVO management server you must install the SNMP service.

Disk-Space Requirements

Table 1-6 lists the disk space requirements for both the installation of the Data Protector Integration software and the Data Protector Integration's run-time files on the OVO management server and, in addition, on the managed node.

Table 1-6   Disk-Space Requirements

Machine	OVO Version	Operating System	Total
OVO Management Server	OVO 7.1	Windows 2000	5 Mb
OVO Managed Node	OVO 7.1	HP-UX 11.00, 11.11, 11i	1 Mb
		Solaris 7, 8	1 Mb
		Supported Microsoft Windows Nodes	1.5 Mb

Memory (RAM) Requirements

There are no specific requirements concerning the amount of RAM installed on either the OVO management server or managed nodes, beyond the requirements of OVO and Data Protector.

Installing the Data Protector Integration

The Data Protector Integration is delivered in the `DPSPI-B.05.03.msi` MSI package which is used to install the Data Protector Integration and console onto the OVO management server. This installs all components required for the management server and the managed nodes on the management server system. The agent software and the configuration data for these agents is then distributed by the OVO administrator to the managed nodes using OVO.

Installation

Refer to the HP OpenView Smart Plug-ins, New and Upgraded, for OpenView Operations/Performance for Windows Installation/Upgrade Guide included with the product.

The following directories are created on the OVO management server system, where `<INSTALLDIR>` is by default:

`c:\Program Files\HP OpenView`

`<INSTALLDIR>\install\DPSPI\`	Installation directory with subdirectories for policies and OVO configuration files
`<INSTALLDIR>\bin\`	Binary and script files
`<INSTALLDIR>\install\DPSPI\vpp\<Platform>`	DSI performance agent integration
`<INSTALLDIR>\Instrumentation\<Platform>\` `<Version>\SPI for DataProtector\`	Monitor scripts and configuration files
`<INSTALLDIR>\Instrumentation\<Platform>\` `<Version>\DP-SPI Discovery\`	Service discovery scripts and executables
`<INSTALLDIR>\NLS\1033\Manuals\`	Documentation containing: Integration Guide and Release Notes

The following directories are created on a Data Protector Cell Manager running on HP-UX or Solaris after the Data Protector Policies and Monitors have been deployed to it:

`/var/opt/OV/bin/instrumentation/`	• `ob_spi_proc.sh` • `obspi.conf` • `ob_spi_backup.sh` • `ob_spi_db.sh` • `ob_spi_file.sh` • `ob_spi_poolsize.sh` • `ob_spi_poolstatus.sh` • `DPCmd` • `dpsvc.pl`

The following directories are created on a Data Protector Cell Manager running on Windows NT 4.0 or Windows 2000 after the Data Protector Policies and Monitors have been deployed to it.

The `<OpenView Installed Packages Dir>` should be:

```
<System Drive>:\Program Files\HP OpenView\Installed
Packages\{790C06B4-844E-11D2-972B-080009EfbC2A}
```

```
<OpenView Installed Packages Dir>
\bin\instrumentation\
```
- `obspi.conf`
- `ob_spi_backup.exe`
- `ob_spi_db.exe`
- `ob_spi_file.exe`
- `ob_spi_poolsize.exe`
- `ob_spi_poolstatus.exe`
- `ob_spi_proc.exe`
- `DPCmd.exe`
- `DPPath.exe`
- `dpsvc.pl`

Installation Verification

To verify the installation:

1. Open the `Add/Remove Programs` as follows:

   Start → Settings → Control Panel → Add/Remove Programs

2. Check that `DPSPI-B.05.03` appears as an installed product.

Running the Add Data Protector Cell Application

To run the `Add Data Protector Cell Application`:

1. Run the **Add DP Cell** tool to create the necessary folders and nodes under the `DP ALL CELLS` and `DP ALL MGRS` node groups.

   The `Edit Parameters` window is displayed as shown in Figure 1-1 on page 16.

2. Enter the name of the node group that you are creating under `DP ALL CELLS` when promted.

In the example below, the node name of the Cell Server, `nt8447`, is also used for the name of the node folder created under `DP ALL CELLS`. This node group is provided to help you organize all systems managed by a Cell Manager, and including that Cell Manager, under the same folder in OVO. However, these name can be different. The resulting node configuration is displayed in the OVO console.

When a managed node is added to either the DP NT MGRS or the DP UX MGRS node groups, using the Add DP Cell tool, the appropriate policies group, DP-SPI NT Poilcies or DP-SPI UX Policies, is automatically deployed to the node.

Figure 1-1   Data Protector Integration Add Cell Session
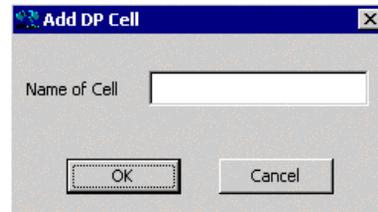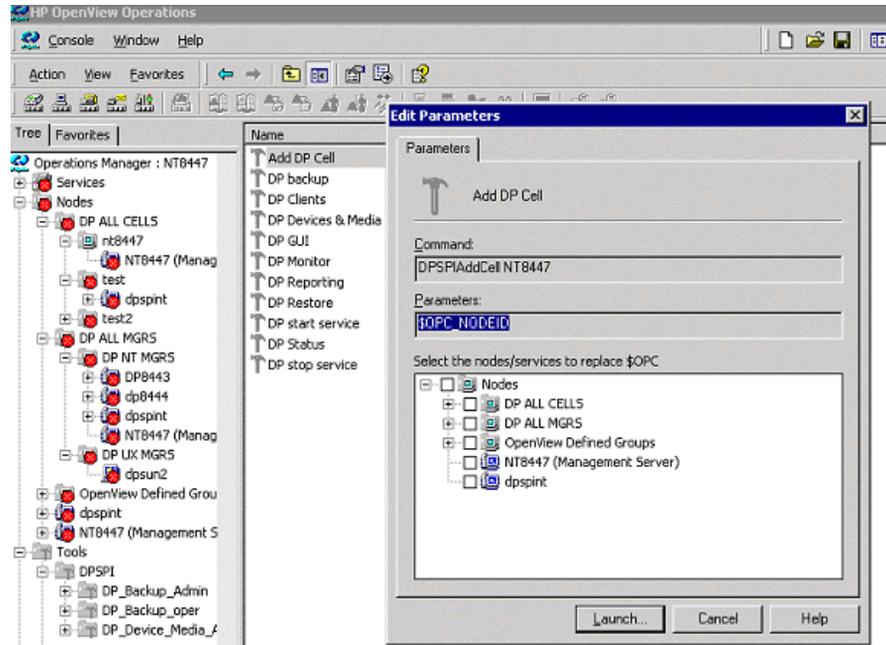
For more information on installation of agent software and adding managed nodes to the management server, please refer to the online help for agent installation or the OVO Installation guide.

To verify that the necessary policies have been deployed, right click the node icon, then select:

View → Policy inventory

Deploy Instrumentation

To deploy instrumentation to a node that has already been added to OVO:

1. Right click the node icon to raise the pop-up menu.

2. Select **All Tasks** → **Deploy Instrumentation**

3. In the Deploy Instrumentation dialog select DP_SPI Discovery and "SPI for DataProtector.

4. Click **OK**.

NOTE	Do NOT check the remove existing instrumentation before... box!

This starts the deployment of the necessary monitors and executables for automatic service discovery.

Agent Configuration

SNMP Configuration on UNIX To enable the OVO Agent on HP-UX nodes to receive SNMP traps from Data Protector:

1. Add one of the following lines to the /opt/OV/bin/OpC/install/opcinfo file.

   - If an ovtrapd process is running add:

     SNMP_SESSION_MODE   TRY_BOTH

   - If no ovtrapd process is running add:

     SNMP_SESSION_MODE   NO_TRAPD

2. Configure the SNMP Emanate Agent to send SNMP traps to the local OVO agent by adding the following lines to the snmpd.conf file:

   HP-UX   /etc/SnmpAgent.d/snmpd.conf

   trap-dest: 127.0.0.1

   Solaris   /etc/snmp/conf/snmpd.conf

   trap localhost

   trap-community public

3. Configure Data Protector to send SNMP traps to the Data Protector Cell Manager host:

   a. Use the Data Protector GUI's **Reporting** context window to setup all Notification events to use:

- SNMP as delivery method
- Cell Manager host system as the destination

Figure 1-2   **Data Protector GUI's Reporting context window**
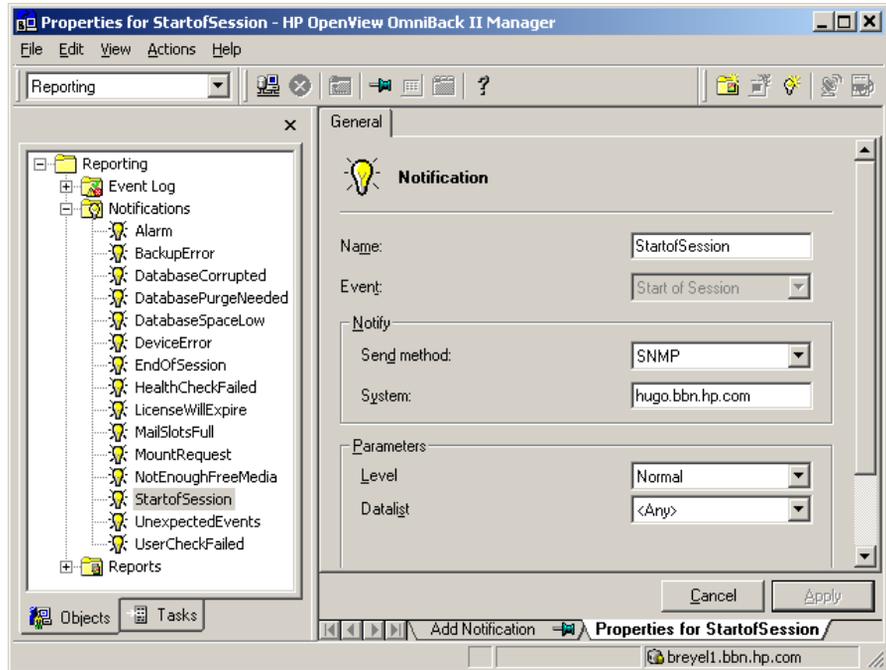
b. Add the Cell Manager hostname as trap destination to the `OVdests` file in `/etc/opt/omni/snmp`.

c. Disable filtering of SNMP traps by emptying the `OVfilter` file in `/etc/opt/omni/snmp`.

SNMP Configuration on Windows We recommend that you configure the Windows system to forward it's SNMP traps to the OVO Management Server in the following way:

1. To enable Data Protector to send SNMP traps, run the command:

   omnisnmp

2. Add the following line to the `<Installed Package>\bin\OpC\install\opcinfo` file.

   SNMP_SESSION_MODE   NO_TRAPD

3. Configure the SNMP Service on a Windows system to send traps to the OVO management server. The community name should be **public**, since this is the default community name that Data Protector's SNMP traps use. The trap destination must be the IP address or the hostname of the OVO Management Server and the rights of the community must be **READ CREATE**.

Figure 1-3   **Configuring the SNMP Service on Windows**
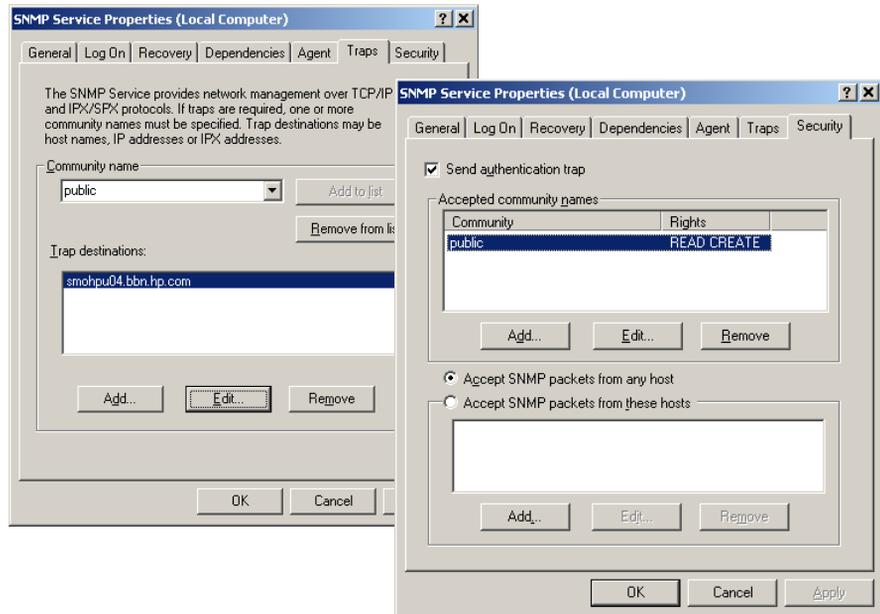
If you want to use a custom community name other than public, you must set this value in the Registry. This will let Data Protector use this custom community name for sending SNMP traps:

```
HKEY_LOCAL_MACHINE\SOFTWARE\HewlettPackard\OpenView\
OmniBackII\SNMPTrap Community<REG_SZ>:
<custom community name>
```

4. Configure Data Protector to send SNMP traps to the OVO management server system:

   a. Use the Data Protector GUI's **Reporting** context window to setup all notification events to use:

      • SNMP as delivery method

      • OVO management server system as the destination

Please see Figure 1-2 on page 18.

b. Add the OVO management server hostname as trap destination to the `OVdests` file in `<Data Protector Root>/Config/SNMP`.

c. Disable filtering of SNMP traps by emptying the `OVfilter` file in `<Data Protector Root>/Config/SNMP`.

5. Configure the OVO management server to intercept SNMP traps sent by the Windows Cell Manager. To do this use the OVO GUI to select and distribute the `DP_SNMP` policy to the OVO management server.

The DP_SNMP policy is located in:

`Policy management\Policy groups\DataProtector SPI\DP_SPI NT Policies\`

Data Protector User Configuration **UNIX** For Data Protector on HP-UX nodes, check that the local root user is in the Data Protector's `admin` user group.

Windows   For Data Protector on Windows, add the local `HP ITO account` user and the local `SYSTEM` account to Data Protector's `admin` user group.

Miscellaneous Configuration **Windows** For Windows nodes, the system variable:

`DPHomeDir`

must be set with the Data Protector root path in order for the OVO Agent is able to find the Data Protector logfiles to be monitored.

The default location is: `C:\Program Files\OmniBack`

NOTE   After changing a Windows system variable, the system must be restarted.

Program Identification

On UNIX Managed Nodes All Data Protector Integration programs and configuration files contain an identification string which can be displayed using the UNIX command:

`what(1):`

The output is of the form:

`HP OpenView Storage Data Protector Integration into OVO B.05.03 (<build_date>)`

On Windows Managed Nodes All Data Protector Integration programs and configuration files contain an identification string which can be displayed by:

1. Right-clicking the `ob_spi_backup.exe` file.

2. Select **Properties** from the popup menu.

3. Select the **Version** tab. The following screen is displayed.

Figure 1-4   **Version Information**
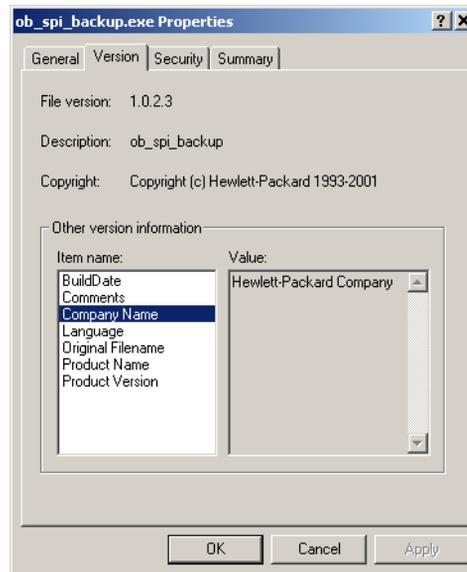
Deinstalling the Data Protector Integration

To deinstall the Data Protector Integration, you must complete the following steps:

- Manually to do some de-configuration tasks through the OVO GUI
- Remove the Data Protector Integration from the OVO Management Server.

De-configuration tasks

Undeploy all Data Protector policies from managed nodes

1. Select `Policy management\Policy groups\DataProtector SPI`, right click and from the pop-up menu select:

    All Tasks → Uninstall from…

    This will raise the `Uninstall policies on ...` window.

2. Mark the **DP ALL MGRS** node entry.

    Figure 1-5   Uninstall policies on… Window
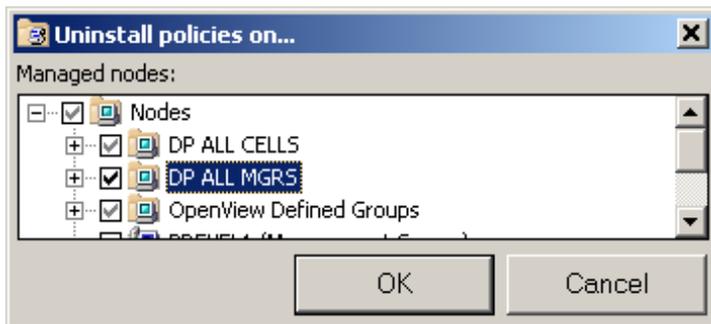
3. Click the **OK** button.

Remove Data Protector Policies from the OVO Management Server

To remove the Data Protector policies from the OVO management server:

1. Select `Policy management\Policy groups\DataProtector SPI`, right click and from the pop-up menu select: **Delete**

This will raise the `Confirm policy group delete` window.

Figure 1-6   Confirm Delete Window

2. Click the **Yes** button to remove the policies.

Remove Data Protector User Roles from the OVO Management Server

To remove the Data Protector policies from the OVO management server:

1. From the toolbar and following cascading menu, select:

   Action → Configure → User roles…

   This will raise the `User Roles` window.

Figure 1-7   User Roles Window
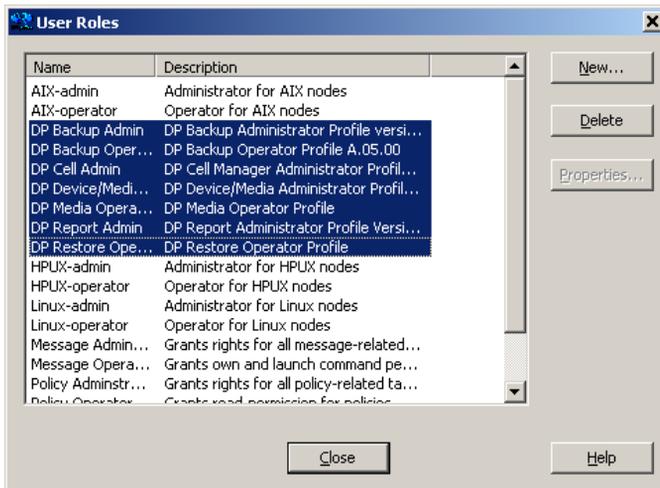
2. In the `User Roles` window, select all `DP*` user roles and click the **Delete** button and close this window.

Remove Data Protector Tools and Directory from the OVO Management Server

To remove the Data Protector tools and directory from the OVO management server:

1. From the toolbar and following cascading menu, select:

   Action → Configure → Tools…

   This will raise the `Configure Tools` window.

2. In the `Configure Tools` window, right-click the DPSPI entry.

   Figure 1-8   Configure Tools Window
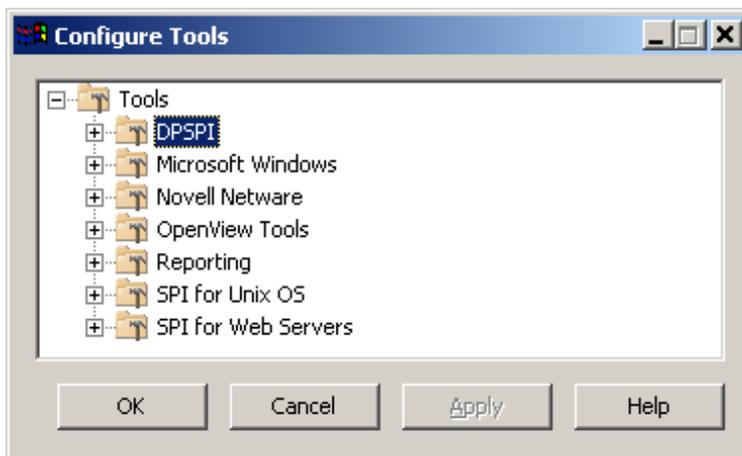
3. Select **Delete** from the popup menu. You will be shown the `Confirm Delete` window.

   Figure 1-9   Confirm Delete Window
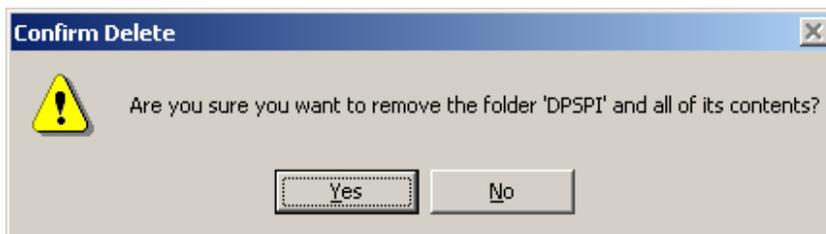
4. Click the **Yes** button to continue deletion. The `Confirm Delete` window closes.

5. Click **Apply** and **OK** in the `Configure Tools` window to continue.

Remove the Data Protector Service Tree from the OVO Management Server

NOTE	This is applicable only if a DP node is currently added to the OVO Management Server and DP_Service_Discovery Policy is deployed on it.

To remove the Data Protector Service Tree from the OVO management server:

1. From the toolbar and following cascading menu, select:

   Action → Configure → Services…

   This will raise the Configure Services window.

Figure 1-10   Configure Services Window
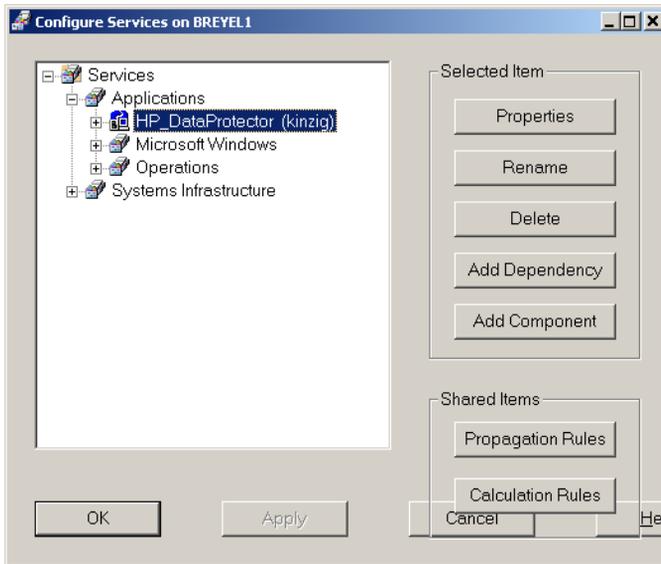
2. In the Configure Services window, select:

   Services\Applications\HP_DataProtector service

   and click the **Delete** button.

3. After confirmation and successful deletion, click **Apply** to activate the change and click **OK** to close this window.

Remove Data Protector DP ALL CELLS and DP ALL MGRS Node Directories from the OVO Management Server

To remove the Data Protector `DP ALL CELLS` and `DP ALL MGRS` Node Directories from the OVO management server:

1. From the toolbar and following cascading menu, select:

   Action → Configure → Nodes…

   This will raise the `Configure Managed Nodes` window.

2. In the In the right part of the window, select `DP ALL CELLS`.

3. Right click `DP ALL CELLS` to raise the pop-up menu and select **Delete**.

4. Follow the same procedure for `DP ALL MGRS`.

Remove the Data Protector Integration

To remove the Data Protector Integration from the OVO management server:

1. From the `Control Panel` select:

   Add/Remove Programs

   This will raise the `Add/Remove Programs` window.

Figure 1-11   Add/Remove Programs Window
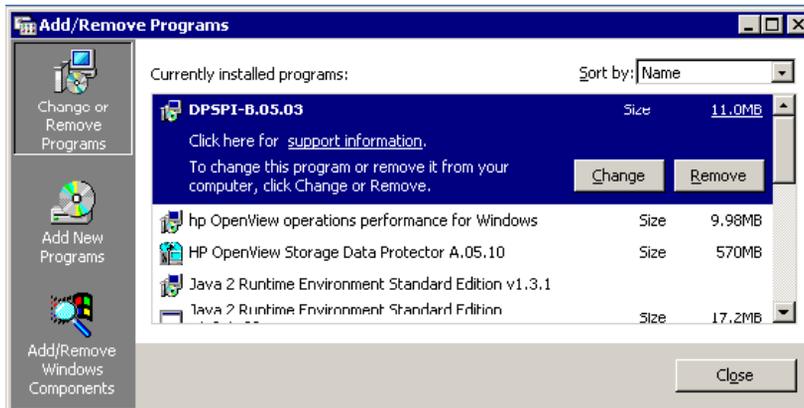
2. In the `Add/Remove Programs` window, scroll down until you find the `DPSPI-B.05.03` entry.

3. Click the **Remove** button to start the removal. This will take a short time

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4. Select HP OpenView Operations for Windows and click **Change**.

    This will launch the InstallShield wizard which will guide you through the deinstallation.

5. Select Remove Poducts.

6. In the product selection dialog, select the DP SPI for deinstallation.

NOTE	Deinstallation tasks 3 and 4 are also possible from the Application CD.

Patches and Fixes in This Version

There are no patches or fixes in HP OpenView Storage Data Protector Integration, version B.05.03.

Software Availability in Native Languages

The HP OpenView Storage Data Protector Integration, version B.05.03 software is available in the English language only.