HP OpenView Business Process Insight

For the Windows® Operating System

Software Version: 02.10

Installation Guide

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Software Release Date: January 2007

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- Software version number, which indicates the software version
- Document release date, which changes each time the document is updated
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Contents

1 Overview

OpenView Business Process Insight (OVBPI) is an HP solution that enables business managers to understand the business impact of system failures, and degraded service performance, on their operations and on their customers.

For an overview of OVBPI refer to the *OpenView Business Process Insight Concepts Guide* and for a more detailed description of each component refer to the architecture chapter of the *OpenView Business Process Insight Reference Guide*.

There are a number of separate installation procedures provided with OVBPI. These installation procedures enable you to install all the OVBPI components that you need to make up the OVBPI machine. The core components of OVBPI are installed on a Microsoft Windows platform; however, some of the adapters to other HP OpenView components can be installed on alternative platform. Full details of the system and software requirements for all the OVBPI components are provided in Chapter 2, Before Starting the Installation.

This chapter covers the following topics:

- The different types of installation provided; see section Options for Installing OVBPI Components Using the OVBPI Installation Procedure on page 17
- Details of the OVBPI licensing requirement; see section Licensing on page 20
- Database requirements for OVBPI; see section OVBPI and Database Usage on page 22

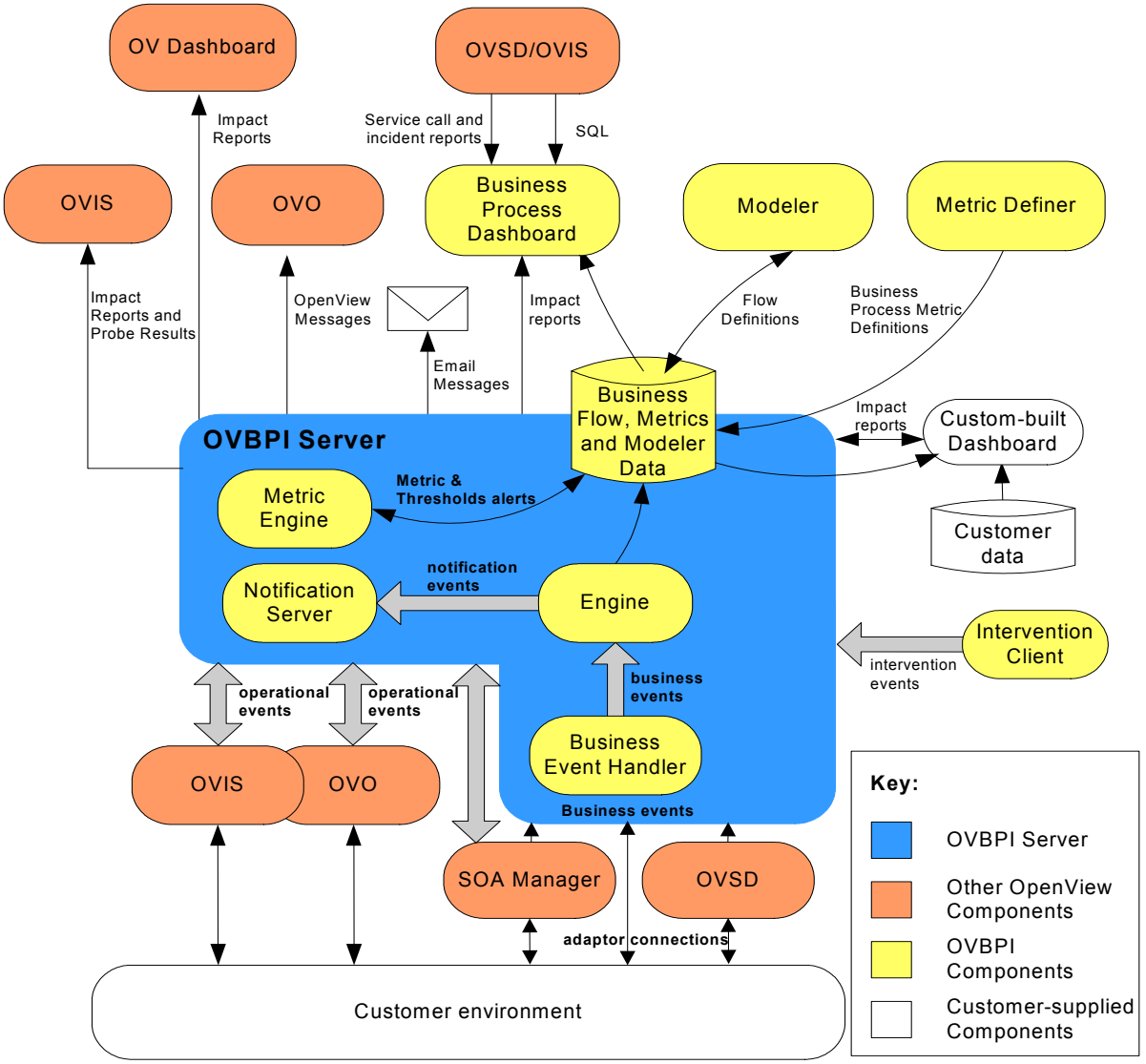
- Deployment options; see section Distributing OVBPI Installation Components on page 23
- Microsoft Server Cluster support; see section High Availability Using Microsoft Server Clusters on page 26.

If you want to skip the preliminary descriptions and see a summary of the installation steps for each of the installation options, continue at section Summary of Installation Steps on page 27.

OVBPI Components

The following is a high level diagram of the OVBPI components that you are installing and their connectivity to other components.

Figure 1 OVBPI Components



In addition to the OVBPI components, some third-party products are installed with OVBPI, one of which is the Tomcat Servlet Engine. Tomcat is used to manage the Java Server Pages (JSPs), which provide the dynamic web content for some of the OVBPI clients.

A more detailed description of the OVBPI components and their relationships is given in the *OpenView Business Process Insight Reference Guide*.

OVBPI Installation Program

OVBPI has the following installation programs:

- OVBPI installation program:
  - Server and Modeler
  - Server Only
  - Modeler Only
  - OVO Adapter
  - Dashboards Only

  Section Options for Installing OVBPI Components Using the OVBPI Installation Procedure on page 17 describes the installation options available for these OVBPI components.
- OVBPI Custom Probes

  The OVBPI Custom Probe installation program is separate from the remaining OVBPI components and is also described in this guide. Section Options for Installing OVBPI Custom Probe Components on page 19 describes the installation options that are available to you when installing the OVBPI Custom Probe component.

- OVO Adapter for HP-UX

  The OVBPI OVO Adapter installation for HP-UX is required if you intend to access OVO services on HP-UX (through Service Navigator).

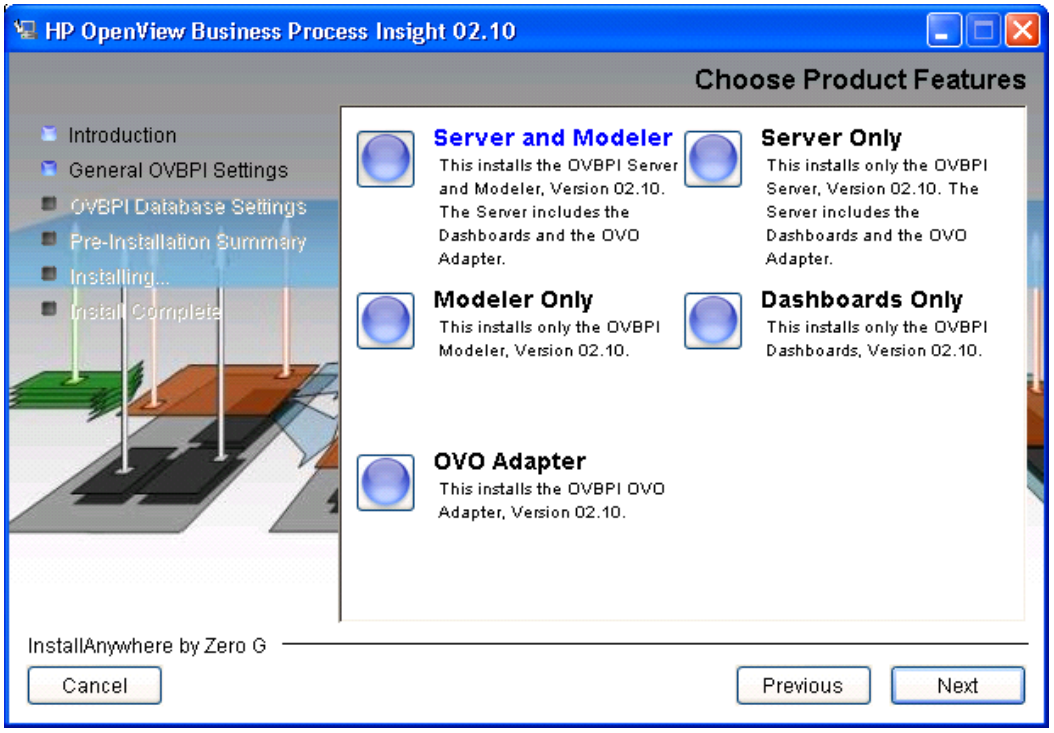
  You need only install the OVO Adapter if you intend to configure your OVBPI machine to receive operational events from Service Navigator on HP-UX. You should install the OVO Adapter for HP-UX on the machine where Service Navigator is also installed.

- OVBPI OpenView SOA Manager Adapter

  There is an OVBPI SOA Manager Adapter zip archive file, which contains the files required to install and configure the SOA Manager adapter on a Windows machine.

Note that only one copy of the OVBPI Server can be run on any one machine. You cannot install and run multiple copies of the OVBPI Server component, or any install option that contains the Server component.

The following diagram shows the installation options that are available to you from the OVBPI installation program.



The questions asked during the installation programs are detailed in Chapter 3, Installing OVBPI.

Options for Installing OVBPI Components Using the OVBPI Installation Procedure

The following are the options available when you run the HP OpenView Business Process Insight Installation procedure.

- `Server and Modeler`

  Use this option to install all the Windows-based OVBPI components, with the exception of the OVBPI Custom Probes.

- `Server Only`

  Use this option to install only the OVBPI Server. This is required in cases where you want to install the OVBPI Modeler on a Windows machine that is remote from the OVBPI Server.

- `Modeler Only`

  Use this option if you want to install the OVBPI Modeler on a Windows machine that is separate from the OVBPI Server machine. Use this option in conjunction with the `Server Only` option. Selecting the `Server and Modeler` option installs the Modeler on the same machine as the OVBPI Server.

- `Dashboards Only`

  Use this option if you want to install one or more additional OVBPI Business Process Dashboards, or Service Desk Process Insight Dashboards on Windows machines that are separate from the OVBPI Server machine. You might want to install a Dashboard on a different machine in order to reduce the load on the OVBPI Server machine. Launching the OVBPI Dashboard from a remote machine through a URL to the OVBPI Server machine does not achieve this as the database access overhead for the OVBPI Dashboard is still on the OVBPI Server machine. By installing the OVBPI Dashboard on a separate machine, the database access is managed from the remote machine, thus reducing the load on the OVBPI Server machine.

- `OVO Adapter`

  Use this option to install the OVBPI OVO Adapter in order to access OVO services on either HP-UX or Windows. This installation option is required only where you want to link your business flows to OpenView Operations services. You install the OVBPI OVO Adapter for HP-UX on the machine

where OpenView Operations (OVO) is installed. You can install the OVO Adapter for Windows on the machine where OVO for Windows is installed, or on the same machine as the OVBPI Server.

Using the HP OpenView Business Process Insight Installation procedure, you can also:

- Re-install the existing version of OVBPI

  You can re-install OVBPI version 02.10 components over an existing installation of the same (or similar) type. For further information on re-installing OVBPI components, refer to Chapter 5, Re-installing OVBPI Components.

- Uninstall the existing version of OVBPI

  You can remove all the OVBPI components from your machine. The uninstall instructions are provided in Chapter 6, Uninstalling OVBPI Components.

- Upgrade from an earlier version of OVBPI

  You can upgrade your OVBPI installation from version 02.0*n* to version 02.10 as described in Chapter 7, Upgrading to OVBPI Version 02.10.

Options for Installing OVBPI Custom Probe Components

Install the OVBPI Custom Probes if you want to use OpenView Internet Services (OVIS) to monitor your OVBPI business flows.

You do not have to install the OVBPI Custom Probes if you want to use OVIS only as a source of operational events. You need only install the custom probes to add the additional probe capability to an existing OVIS implementation. The OVBPI Custom Probes are described in detail in the *OpenView Business Process Insight Reference Guide*.

Using the OVBPI Custom Probe installation program, you can:

- install the probes

  Use this installation procedure to install the probes on a Windows machine where OVIS is running.

  You cannot install the probes on a machine that is remote from OVIS; the probes must be installed on the machine where OVIS is also installed.

- re-install the probes

  You can re-install the probes as described in Chapter 5, Re-installing OVBPI Components.

- uninstall the probes

  You can remove the probes from your machine as described in Chapter 6, Uninstalling OVBPI Components.

- upgrade the probes

  When you install OVBPI version 02.0*n*, you must also upgrade the OVBPI Custom Probes for OVIS from being compatible with OVBPI version 02.00 to being compatible with OVBPI version 02.10. This is described in Chapter 7, Upgrading to OVBPI Version 02.10.

Licensing

You must have a license key password to use OVBPI, specifically the OVBPI Server. Following your initial installation, you are automatically assigned a 60-day trial license. Within this 60 day period, you must obtain either a trial license extension, or a permanent license key password.

OVBPI uses a Nodelocked license based on the short hostname (not the fully-qualified hostname) of the machine where the OVBPI Server is installed. You must supply a short hostname for the machine where you intend to run OVBPI when completing your license request form. You can obtain the short hostname using the following command from a Windows Command Prompt:

```
hostname
```

Do not supply an IP Address when applying for your license key as you will not be able to use the generated password to unlock your OVBPI installation.

The following is an example of a short host name:

```
server1
```

The following is an example of a fully-qualified hostname:

```
server1.hp.com
```

The following is an example of an IP Address:

```
111.222.333.444
```

Trial License Extension

If you need to request an trial (or evaluation) license extension, access the HP OpenView license and password delivery web site and navigate to the page for evaluation extension licenses.

http://www.webware.hp.com

Be aware that evaluation license extensions are granted only once, after which time a permanent license must be purchased. Full details of the process can be found on the Web site.

Permanent License Key Password

If you have purchased the OVBPI software and received your entitlement certificate, you need enter your permanent license key password into the licensing configuration software. The licensing configuration utility is installed as part of the OVBPI server as an option on the OVBPI Administration Console. Section License Key Password Redemption on page 104 explains how to access this utility following a successful OVBPI Server installation.

OVBPI and Database Usage

OVBPI uses a database to store information relating to the active flows that it is processing. The databases that are supported for use with OVBPI are:

- Microsoft SQL Server 2000
- Microsoft SQL Server 2005
- Oracle9i Enterprise Edition Release 9.2.0.5.0
- Oracle Database 10g Enterprise Edition Release 10.2.0.1

The database can be installed on the same machine as the OVBPI Server, or on a different machine. A fully configured and operational database is a prerequisite for the following OVBPI installation options:

- `Server and Modeler`
- `Server Only`

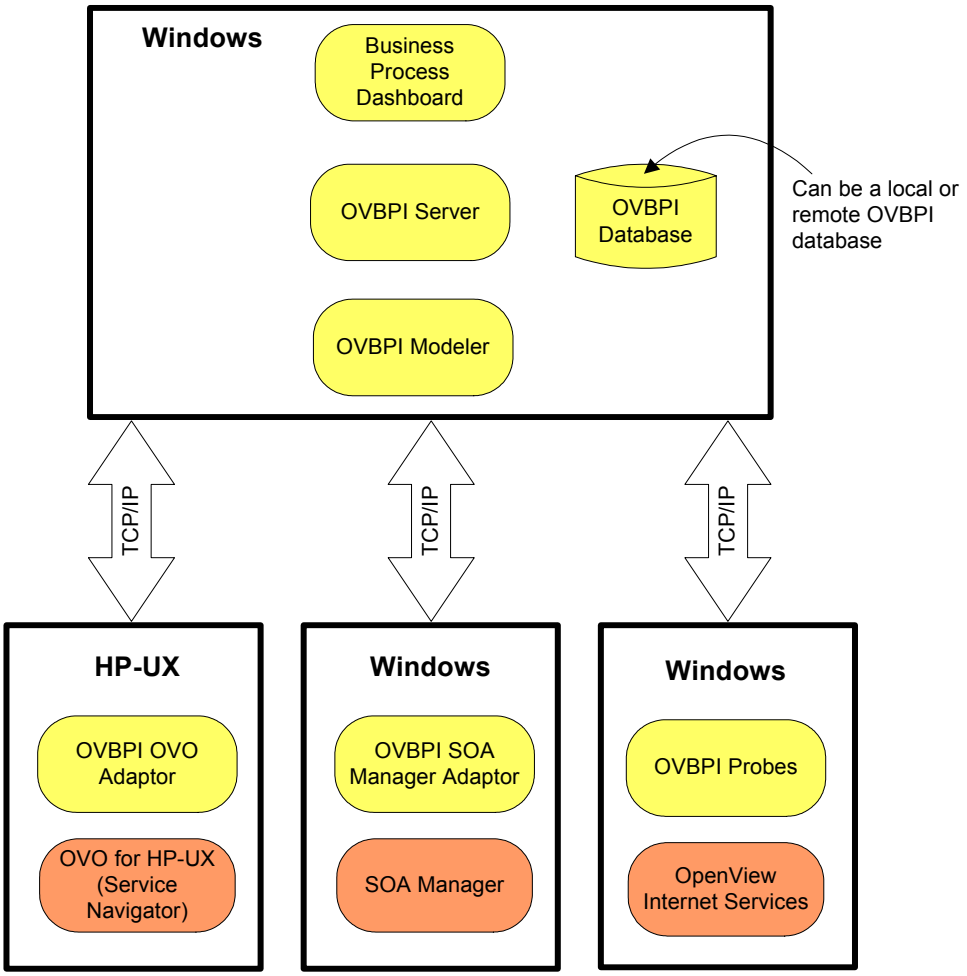
The database must be installed and running before starting an OVBPI installation in cases where you are selecting either of these installation options. Any database configuration requirements that are specific to OVBPI are provided in section OVBPI Server Database Requirements on page 57.

You are strongly advised not to modify any of the data in the OVBPI database tables as OVBPI relies on this data being internally consistent in order to operate. Changing the values in the database tables will impact the behavior and operation of your OVBPI machine.

Distributing OVBPI Installation Components

The following diagram shows an example of a single Windows machine installation.

Figure 2 Example OVBPI Distribution Scenario



The database can be installed on the same machine as the OVBPI Server or on a different machine. You give OVBPI the details of the location of the database as part of the OVBPI installation.

In addition to the Windows installation of OVBPI, you can have:

- an OVBPI OVO Adapter installation. This installation is for either of:
  - HP-UX

    The HP-UX installation of the OVBPI OVO Adapter must be installed on the same machine as OpenView Operations Service Navigator.
  - Windows

    The Windows installation of the OVBPI OVO Adapter can be installed on the same machine as OpenView Operations for Windows or on the machine where the OVBPI Server is installed.

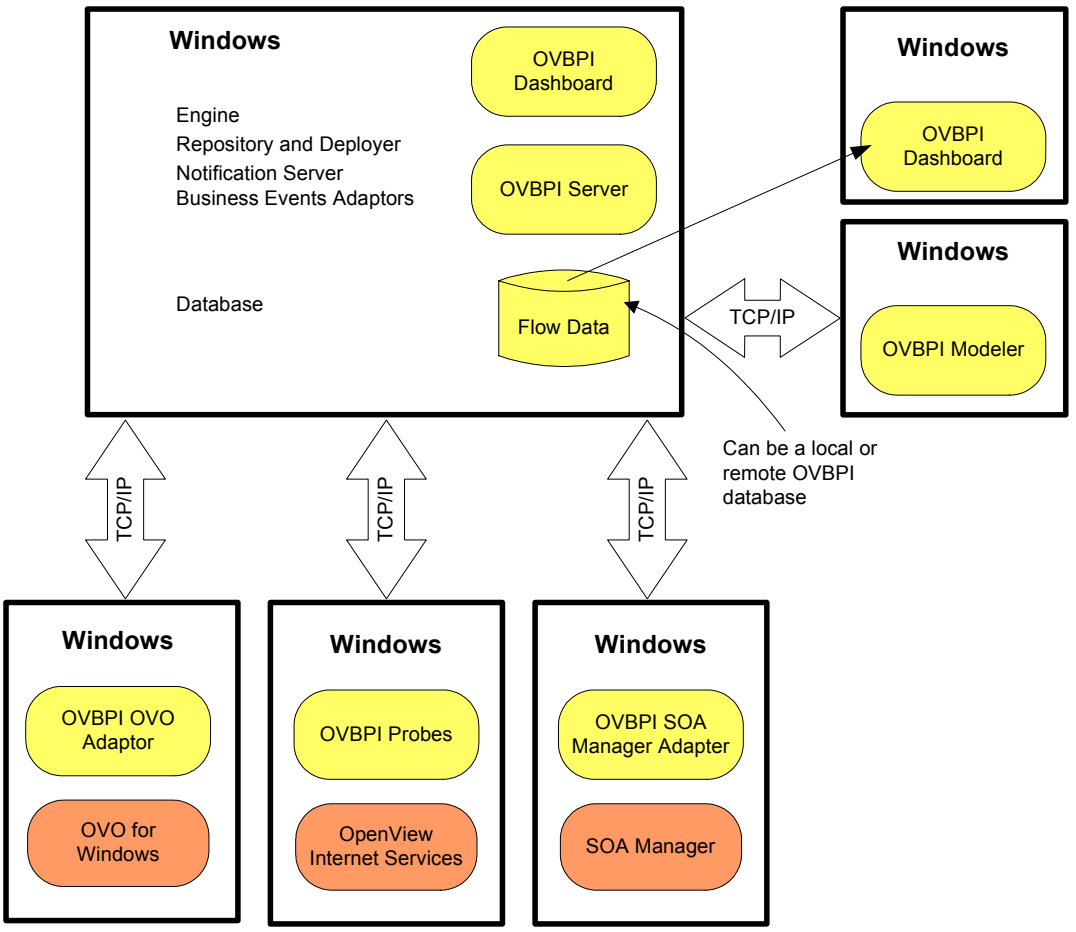
  You cannot install the OVBPI OVO Adapter for HP-UX and for Windows and use them in the same OVBPI implementation. You can import services either from OVO for HP-UX or from OVO for Windows, but not both.
- a Windows installation for the OVBPI Custom Probes, which must be installed on that same machine as the OpenView Internet Services Management Server. Note that there is no additional installation required if all you want is to monitor the status of OVIS services.
- A Windows installation of the OVBPI Business Process Dashboard on a different machine to the OVBPI Server. This is different scenario to accessing the Business Process Dashboard installed on the same machine as the OVBPI Server.
- a SOA Manager adapter installation. The SOA Manager adapter can be installed on any Windows machine.

You can access the OVBPI Web clients from any machine running an Internet Explorer Web browser and that has network access to the machine where the OVBPI Server is running.

Figure 3 on page 25 shows an OVBPI Server, with an OVBPI Business Process Dashboard on one Windows machine and the OVBPI Modeler on another Windows machine. The same combinations of OVBPI OVO Adapter installation, SOA Manager Adapter installation and OVBPI Custom Probes installation apply, as described above.

You can have only one OVBPI Modeler connected to an OVBPI Server, or specifically, the Model Repository component.

Figure 3 OVBPI Server with Remote Modeler and Remote Dashboard



In this deployment example, the Web browser where you are running the OVBPI Business Process Dashboard can be on any Windows machine. You need to provide the URL that is appropriate to the machine where the Business Process Dashboard that you want to use is located.

There is no need to install the OVBPI custom probes for OVIS if all you want is to monitor the status of OVIS services.

These are example distribution options. In all cases the important point to note is that the individual OVBPI Server components cannot be distributed.

High Availability Using Microsoft Server Clusters

You can install OVBPI in a Microsoft Server Cluster environment in order to provide a high-availability solution for any of the OVBPI components that can be installed on a Microsoft Windows platform. When using OVBPI within a Microsoft Cluster, OVBPI must be deployed in Active/Passive mode.

By supporting Microsoft Server Clusters in an Active/Passive mode, OVBPI components are automatically restarted on an alternative node in the cluster, if the node they are currently running on fails for any reason.

Information about how to configure your OVBPI machine to operate within a Microsoft Server Cluster environment is provided in the *OpenView Business Process Insight Administration Guide*. If you intend to operate OVBPI within a Microsoft Server Cluster environment, you must read the information provided in the *OpenView Business Process Insight Administration Guide* before starting the OVBPI installation. This Installation Guide makes no reference to the cluster environment when installing the OVBPI components for the first time.

Summary of Installation Steps

The following sections provide a summary of the installation steps for the different installation options available for OVBPI. These sections are summaries of new installations, they are not appropriate for upgrade or reinstallation. If you are reinstalling or upgrading follow the instructions appropriate to these tasks; see Chapter 5, Re-installing OVBPI Components and Chapter 7, Upgrading to OVBPI Version 02.10 respectively.

This summary provides pointers to sections later in the guide where the full instructions for the specified installation type are described.

Installation Summary - Server and Modeler or Server Only

The following list provides a summary of the steps required to install a `Server and Modeler` or the `Server Only` installation type:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section OVBPI Server and Modeler and Server Only Installation Requirements on page 37.
3. Ensure that the database you are planning to use for OVBPI is correctly configured and is running and accessible to the machine where OVBPI is to be installed; see section OVBPI Server Database Requirements on page 57.
4. Collect the data that you need for the installation; see the section appropriate to the installation type as follows:
   - section Information Required for a Server and Modeler Installation on page 78
   - section Information Required for a Server Only Installation on page 83
5. Install the `Server and Modeler` or the `Server Only`; see the section appropriate to the installation type as follows:
   - section Server and Modeler Installation on Windows on page 94
   - section Server Only Installation on Windows on page 106

6. Start the OVBPI Server; see section Starting OVBPI Server Components on Windows on page 102.

   If you have installed the Server Only option, you need to continue at section Installation Summary - Modeler Only on page 28 to install the OVBPI Modeler on another machine.

   If you have installed the `Server and Modeler` Installation type, continue at the next step.

7. Install a valid license key for OVBPI; see section License Key Password Redemption on page 104.

8. Run the verification procedure to check the installation as described in Chapter 4, Verifying the Installation.

Installation Summary - Modeler Only

The following list provides a summary of the steps required to install a `Modeler only` installation type:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.

2. Verify all the hardware and software requirements for this installation type; see section OVBPI Modeler Installation Requirements on page 41.

3. Collect the data that you need for the installation; see the section Information Required for a Modeler Only Installation on page 84

4. Install the `Modeler` installation as described in section Modeler Only Installation on page 108.

5. Make sure that the OVBPI Server is running; see section Starting OVBPI Server Components on Windows on page 102.

Installation Summary - Dashboards Only

The following list provides a summary of the steps required to install a `Dashboards Only` installation type:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section OVBPI Dashboard Installation Requirements on page 43.
3. Collect the data that you need for the installation; see the section Information Required for a Dashboards Only Installation on page 84
4. Make sure that the OVBPI Server is running; see section Starting OVBPI Server Components on Windows on page 102.

   The OVBPI Server does not need to be running for the installation to complete; however, you cannot configure the database details through the installation procedure if it is not. You will have to complete them after the installation using the OVBPI Administration Console.
5. Install the `Dashboard` installation as described in section Dashboards Only Installation on page 111.

Installation Summary - Custom Probes

The OVBPI Custom Probes for Internet Services need be installed only if you want OVIS to monitor details of your OVBPI business flows.

The probes must be installed on the same machine as the OVIS Management Server.

The following list provides a summary of the steps required to install the OVBPI Custom Probes for OVIS:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section OVBPI Custom Probes Installation on page 45.

3. Collect the data that you need for the installation; see the section Information Required for an OVIS Custom Probes Installation on page 89
4. Install the OVIS Custom Probes as described in section OVBPI Custom Probes for Internet Services Installation on page 121.

Installation Summary - OVO Adapter for Windows

The OVO Adapter for Windows needs to be installed only if you intend to use OpenView Operations for Windows (OVOW) as a source of operation events. You can install the OVO Adapter for Windows on the same machine as the OVBPI Server, or on a different machine.

The OVO Adapter for Windows is silently installed with the OVBPI Server, OVBPI so no further installation steps are required; however, you need to add the adapter to your configuration in order to use it.

The following list provides a summary of the steps required to install the OVBPI OVO Adapter on a Windows machine other than the machine where the OVBPI Server is installed:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section OVBPI OVO Adapter Installation Requirements on page 48.
3. Collect the data that you need for the installation; see the section Information Required for an OVO Adapter Installation on page 87
4. Install the OVO Adapter for windows as described in section OVBPI OVO Adapter Installation on page 115.

Installation Summary - OVO Adapter for HP-UX

The OVBPI OVO Adapter for HP-UX needs to be installed only if you intend to use OpenView Operations for HP-UX (Service Navigator) as a source of operation events.

You must install the OVO Adapter on the OVO machine where the services you want to link to are defined.

The following list provides a summary of the steps required to install the OVBPI OVO Adapter on an HP-UX machine:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section OVBPI OVO Adapter Installation Requirements on page 48.
3. Collect the data that you need for the installation; see the section Information Required for an OVO Adapter Installation on page 87.
4. Install the OVO Adapter as described in section OVBPI OVO Adapter Installation on page 115.

Installation Summary - OVBPI SOA Manager Adapter

The SOA Manager Adapter is not one of the components installed as part of the OVBPI installation procedure. The SOA Manager Adapter is provided on the media as a zip archive file that can be copied to the Windows machine where you want to install it.

The following list provides a summary of the steps required to install the SOA Manager Adapter:

1. Check the OVBPI Release Notes for any required pre-installation tasks. The Release Notes are located on the distribution media.
2. Verify all the hardware and software requirements for this installation type; see section OVBPI OpenView SOA Manager Adapter Installation Requirements on page 51.

3. Collect the data that you need for the installation; see the section Information Required for a SOA Manager Adapter Installation on page 87.
4. Install the SOA Manager Adapter as described in section OVBPI SOA Manager Adapter Installation and Configuration on page 123.

What to do Next

Read the chapter appropriate to the task that you want to complete:

- Chapter 2, Before Starting the Installation describes the tasks that you need to complete before starting a new, or an upgrade installation.
- Chapter 3, Installing OVBPI provides details of the tasks to install OpenView Business Process Insight for the first time.
- Chapter 4, Verifying the Installation describes how to verify that the OpenView Business Process Insight components are installed correctly following a new installation.
- Chapter 5, Re-installing OVBPI Components describes the tasks that you need to complete to re-install OpenView Business Process Insight components.
- Chapter 6, Uninstalling OVBPI Components describes the tasks that you need to complete to remove the OpenView Business Process Insight components from your machines.
- Chapter 7, Upgrading to OVBPI Version 02.10 describes how to upgrade from OVBPI version 02.0*n* to OVBPI version 02.10.
- Chapter 8, Reporting Problems to Hewlett-Packard describes how to report problems to Hewlett-Packard.

List of OVBPI Guides

The following OVBPI guides are available on the distribution media, in both PDF and HTML format:

- *OpenView Business Process Insight Concepts Guide*
- *OpenView Business Process Insight Installation Guide*
- *OpenView Business Process Insight System Administration Guide*
- *OpenView Business Process Insight Reference Guide*
- *OpenView Business Process Insight Problem Solving Guide*
- *OpenView Business Process Insight Integration Training Guide - Business Events*
- *OpenView Business Process Insight Integration Training Guide - Modeling Flows*
- *OpenView Business Process Insight Integration Training Guide - Defining Business Metrics*
- *OpenView Business Process Insight Integration Training Guide - Monitoring Service Desk*
- *OpenView Business Process Insight Integration Training Guide - Customizing the Business Process Dashboard*
- *OpenView Business Process Insight Integration Training Guide - Importing BPEL*
- *OpenView Business Process Insight Release Notes*

2 Before Starting the Installation

This chapter describes the tasks that you must complete in order to install the OVBPI components. These tasks must be completed before running the appropriate OVBPI installation process:

- OVBPI Server and Modeler installation; see section OVBPI Server and Modeler and Server Only Installation Requirements on page 37.
- OVBPI Server Only installation; see section OVBPI Server and Modeler and Server Only Installation Requirements on page 37.
- OVBPI Modeler Only installation; see section OVBPI Modeler Installation Requirements on page 41.
- OVBPI Dashboards Only installation; see section OVBPI Dashboard Installation Requirements on page 43
- OVBPI Custom Probe installation; see section OVBPI Custom Probes Installation on page 45.
- OVBPI OVO Adapter installation; see section OVBPI OVO Adapter Installation Requirements on page 48.
- OVBPI OpenView SOA Manager Adapter; see section OVBPI OpenView SOA Manager Adapter Installation Requirements on page 51.

In addition to the information relating to these installation options, there is also information that you need about the requirements that OVBPI has on the database installation. These requirements are described in section OVBPI Server Database Requirements on page 57.

Before completing any of the tasks described in this chapter, read the *OpenView Business Process Insight Release Notes* to check if there are additional requirements for your installation. The release notes are available on your distribution media.

If you are re-installing the OVBPI components, follow the instructions in Chapter 5, Re-installing OVBPI Components.

If you are upgrading from OVBPI version 02.0*n*, follow the instructions in Chapter 7, Upgrading to OVBPI Version 02.10.

OVBPI Server and Modeler and Server Only Installation Requirements

The following sections describe the system, database and software requirements for an OVBPI `Server and Modeler` Installation or an OVBPI `Server Only` installation.

Note that the exact system requirements depend on the number of flows that you need to define, the business process metrics that you define and the load on your system. This section provides the minimum system requirements.

System Requirements

The following table lists the minimum system requirements for the OVBPI `Server and Modeler` installation and `OVBPI Server Only` installation on Windows.

The OVBPI `Server and Modeler` and `Server Only` installations can be installed on a Windows machine only.

Table 1 Minimum System Requirements for an OVBPI Server and Modeler and Server Only Installation on Windows

Requirement	Value	How to Check
System Processor	Intel (at least 2Ghz)	Use: `Programs > Accessories > System Tools > System Information`
Windows version	• Windows 2000 Server, plus SP4 • Windows 2003 Server, plus SP1 • Windows XP Professional, plus SP2	
Physical Memory	1024MB	
Virtual memory	1536MB	

Disk Space Requirements

The following table describes the disk space requirements.

Table 2 OVBPI Server and Modeler and Server Only Installation Disk Space Requirements

Installation Type	Free Disk Space	How to Check
Server and Modeler Installation	200MB for static data, plus an allocation for dynamic data; see the note below.	Use `My Computer` to check disk space. Click on the drive name where you intend to install OVBPI and check the available capacity.
Server Only Installation	200MB for static data, plus an allocation for dynamic data; see the note below.	

Note:

In addition to the disk space requirements for the OVBPI components, you need to take into account the disk space required for the database files and log files. 6GB (`Server Only` Installation) and 7GB (`Server and Modeler` Installation) is the initial recommendation for the dynamic data; however, you need to read section Oracle Database Configuration on page 66 for details of calculating disk space for the database based on the numbers of flow instances and business process metrics.

Software Requirements

The OVBPI `Server and Modeler`, and `Server Only` installations require the following software versions to be installed before the installation is started.

Table 3 OVBPI Server and Modeler, and Server Only Software Requirements

Software Component	Version
J2SE	JDK version 1.5, update 8 (jdk1.5.0_08)
Databases:	
• Microsoft SQL Server	• Microsoft SQL Server 2000 standard edition, plus SP3a • Microsoft SQL Server 2005 standard edition. plus SP1
• Oracle Server	• Oracle9i Enterprise Edition Release 9.2.0.5.0 • Oracle Database 10g Enterprise Edition Release 10.2.0.1
OpenView Operations for HP-UX[a]	• OVO/Unix 7.10 for HP-UX, plus Service Navigator Value Pack 7.10 for HP-UX • OVO version 8.10 for HP-UX, plus Service Navigator Value Pack 8.0 for HP-UX
OpenView Operations for Windows[b]	• OVO 7.21 for Windows • OVO 7.50 for Windows
OpenView Internet Services[c]	• OVIS 6.00 • OVIS 6.10

Table 3 OVBPI Server and Modeler, and Server Only Software Requirements

Software Component	Version
OpenView Service Desk[d]	OVSD 4.50 (using the WEB-API), plus service pack 20
OpenView SOA Manager[e]	SOA Manager 2.10
OpenView Select Access[f]	Select Access 6.2
Tomcat[g]	5.0.19
Internet Explorer	6 or 7

a. This OpenView product is required only if you want to receive operational events from OpenView Operations on HP-UX (Service Navigator). This also requires the OVBPI OVO Adapter for HP-UX to be installed and configured on the OVO for HP-UX system.

b. This OpenView product is required only if you want to receive operational events from OpenView Operations (OVO) on Windows. This also requires the OVBPI OVO Adapter for Windows to be installed and configured.

c. This OpenView product is required only if you want to use OVIS probes to monitor the flows in your OVBPI solution.

d. This OpenView product is required only if you want to integrate OVBPI with HP OpenView Service Desk.

e. This OpenView product is required only if you want to integrate with HP OpenView SOA Manager. This also requires the OVBPI SOA Manager Adapter to be installed and configured.

f. This OpenView product is required only if you want to authenticate the OVBPI components using Select Access.

g. Tomcat is installed as part of the OVBPI Server component.

In addition to the above, you need access to an SMTP Server in order to be notified of OVBPI alerts through email.

See also section J2SE on page 52 for information about setting up J2SE.

OVBPI Modeler Installation Requirements

The following sections describe the system, database and software requirements for an OVBPI Modeler Only installation.

System Requirements

The following table lists the minimum system requirements for the OVBPI Modeler Only installation on Windows.

The OVBPI Modeler Only installation is available on Windows only.

Table 4 Minimum System Requirements for an OVBPI Modeler Installation on Windows

Requirement	Value	How to Check
System Processor	Intel (at least 2Ghz)	Use: `Programs > Accessories > System Tools > System Information`
Windows version	• Windows 2000 Server, plus SP4 • Windows 2003 Server, plus SP1 • Windows XP Professional, plus SP2	
Physical Memory	512MB	
Virtual memory	768MB	

Disk Space Requirements

The following table describes the disk space requirements for the Modeler.

Table 5 OVBPI Modeler Disk Space Requirements

Installation Type	Free Disk Space	How to Check
`Modeler Installation`	200MB for static data, plus 0.5GB for dynamic data.[a]	Use `My Computer` to check disk space.

a. In addition to the disk space requirements for OVBPI, you need to take into account the disk space required for log files and trace files; 0.5GB is the recommendation for this dynamic data.

Software Requirements

The OVBPI Modeler installation requires the following software versions to be installed before the installation is started.

Table 6 OVBPI Modeler Installation Software Requirements

Software Component	Version
J2SE	JDK version 1.5, update 8 (jdk1.5.0_08)

See also section J2SE on page 52 for information about setting up your J2SE.

OVBPI Dashboard Installation Requirements

The following sections describe the system, database and software requirements for an `OVBPI Dashboards Only` installation.

System Requirements

The following table lists the minimum system requirements for the `OVBPI Dashboards Only` installation on Windows.

The OVBPI Dashboards Only installation is available on Windows only.

Table 7 Minimum System Requirements for an OVBPI Dashboard Installation on Windows

Requirement	Value	How to Check
System Processor	Intel (at least 2Ghz)	Use: `Programs > Accessories > System Tools > System Information`
Windows version	• Windows 2000 Server, plus SP4 • Windows 2003 Server, plus SP1 • Windows XP Professional, plus SP2	
Physical Memory	512MB	
Virtual memory	768MB	

Disk Space Requirements

The following table describes the disk space requirements for the Dashboard.

Table 8 OVBPI Dashboard Disk Space Requirements

Installation Type	Free Disk Space	How to Check
`Modeler Installation`	200MB for static data, plus 0.5GB for dynamic data.[a]	Use `My Computer` to check disk space.

a. In addition to the disk space requirements for OVBPI, you need to take into account the disk space required for log files and trace files; 0.5GB is the recommendation for this dynamic data.

Software Requirements

The OVBPI Dashboards Only installation requires the following software versions to be installed before the installation is started.

Table 9 OVBPI Dashboard Installation Software Requirements

Software Component	Version
J2SE	JDK version 1.5, update 8 (jdk1.5.0_08)
Tomcat[a]	5.0.19
Internet Explorer	6 or 7

a. Tomcat is installed as part of the `Dashboards Only` installation.

See also section J2SE on page 52 for information about setting up your J2SE.

OVBPI Custom Probes Installation

The following sections describe the system, database and software requirements for the OVBPI Custom Probes on Windows. The probes must be installed on the same system as the OVIS Management Server.

System Requirements

The following table lists the minimum system requirements for the OVBPI Custom Probes installation on Windows.

OpenView Internet Services supports probes running on the same system, or remote from the OVIS Management Server. Be aware that the OVBPI Custom Probes for OVIS are Local Probes and must not be installed on a system that is remote from the OVIS Management Server.

The following table lists the system requirements for the OVBPI Custom Probes. Note that the only requirement listed is the platform version. The probes installation has few system requirements and those already required by OpenView Internet Services are also suitable for the OVBPI Custom Probes.

Table 10 Minimum System Requirements for OVBPI Custom Probe Installation on Windows

Requirement	Value	How to Check
System Processor	Intel	Use: `Programs > Accessories > System Tools > System Information`.
Windows version	• Windows 2000 Server, plus SP4 • Windows 2003 Server, plus SP1 • Windows XP Professional, plus SP2	

Disk Space Requirements

The following table describes the disk space requirements for the custom probes.

Table 11 OVBPI Custom Probes Disk Space Requirements

Installation Type	Free Disk Space	How to Check
`OVBPI Custom Probes installation`	200MB for static data, plus 0.5GB for dynamic data.[a]	Use `My Computer` to check disk space.

a. In addition to the disk space requirements for OVBPI, you need to take into account the disk space required for log files and trace files; 0.5GB is the recommendation for this dynamic data.

Software Requirements

The OVBPI Custom Probes installation requires the following software versions to be installed before the installation is started.

Table 12 OVBPI Custom Probes Installation Software Requirements

Software Component	Version
J2SE	JDK version 1.5, update 8 (jdk1.5.0_08)
OpenView Internet Services	6.00 or 6.10
Database	Any database supported by the version of OpenView Internet Services that you plan to use. These are as follows: • 6.00 — Microsoft SQL Server Desktop Engine (MSDE) as installed by OpenView Internet Services — Microsoft SQL Server 2000 — Oracle 8 for HP-UX version 11.0 — Oracle9i for HP-UX version 11.0 • 6.10 — Microsoft SQL Server Desktop Engine (MSDE) as installed by OpenView Internet Services — Microsoft SQL Server 2000 — Oracle 8 for HP-UX version 11.0 — Oracle9i for HP-UX version 11.0 — Oracle 10g for HP-UX 11.0

See also section J2SE on page 52 for information about setting up your J2SE and section OVBPI Custom Probes for Internet Services Database Requirements on page 74 for details of the database requirements for the Custom probes.

OVBPI OVO Adapter Installation Requirements

The following sections describe the system, database and software requirements for the OVBPI OpenView Operations (OVO) Adapter on HP-UX and Windows.

System Requirements

The following table lists the system requirements for the OVBPI OVO Adapter. Note that the only requirement listed is the platform versions. The OVBPI OVO Adapter has few system requirements and those already required by OpenView Operations are also suitable for the adapter.

Table 13 Minimum System Requirements for OVBPI OVO Adapter Installation on HP-UX

Requirement	Value	How to Check
Hardware	HP 9000 Technical Workstation and HP 9000 Enterprise Server (not Itanium)	
HP-UX version (PA RISC)	11.11	`/usr/bin/uname -rs`

Table 14 Minimum System Requirements for OVBPI OVO Adapter Installation on Windows

Requirement	Value	How to Check
Windows version Intel (at least 2Ghz)	• Windows 2000 Server, plus SP4 • Windows 2003 Server, plus SP1 • Windows XP Professional, plus SP2	Use: `Programs > Accessories > System Tools > System Information`

Disk Space Requirements

The following table describes the disk space requirements for the adapter.

Table 15 OVBPI OVO Adapter Disk Space Requirements

Installation Type	Directory	Free Disk Space	How to Check
OVO Adapter Installation for HP-UX	/opt/ov (HP-UX)	100MB for static data and 1GB for dynamic data	Verify the available disk space for your system using the following command: /bin/df -k
OVO Adapter Installation for Windows		100MB for static data and 1GB for dynamic data	Use My Computer to check disk space.

Software Requirements

The OVBPI OVO Adapter installation requires the following software versions to be installed before the installation is started.

Table 16 OVBPI OVO Adapter Software Requirements

Software Component		Version
J2SE		JDK version 1.5, update 8 (jdk1.5.0_08)
either	OpenView Operations (Service Navigator)[a]	• OVO/Unix 7.10 for HP-UX and Service Navigator Value Pack 7.10 for HP-UX • OVO version 8.10 for HP-UX and Service Navigator Value Pack 8.0 for HP-UX
or	OpenView Operations for Windows (OVOW)	• Version 7.21 • Version 7.5
Microsoft .NET Framework	OpenView Operations for Windows (OVOW)	Version 2.0

a. This component is part of OpenView Operations and is installed on an HP-UX system remote from the OVBPI Server and Modeler or Server Only installation.

See also section J2SE on page 52 for information about setting up your J2SE.

OVBPI OpenView SOA Manager Adapter Installation Requirements

The following sections describe the system, database and software requirements for the OVBPI SOA Manager Adapter.

System Requirements

The OVBPI SOA Manager Adapter has few system requirements.

Table 17 Platform Requirements for OVBPI SOA Manager Adapter Installation

Requirement	Value
Hardware platform	• Microsoft Windows 2003 Server

Disk Space Requirements

The disk space requirements for the SOA Manager Adapter are not significant.

The Adapter requires approximately 10MB for the installation and approximately 1GB for dynamic data, for example, log files. The actual amount will vary according to the amount of data created and the level of logging that you have set.

J2SE

This component is required by OVBPI to run the java classes and to compile the business flows. It is also required by the installation procedure on the HP-UX system where the OVBPI OVO Adapter is installed.

Make sure that `%JAVA_HOME%\bin` is added to your system path before running OVBPI.

If JDK version 1.5, update 8 is already installed on your system, and you have multiple versions of the J2SE, you must make sure that the prerequisite version of the J2SE is the first one on your system environment variable `PATH` list. To check that this is the case, in a command window, enter the following command to check that the correct version is on your system `PATH`:

```
java -version
```

Possible sources for the versions of the J2SE that are required for OVBPI (both HP-UX and Windows) are as follows:

- **http://www.hp.com/products1/unix/java/**
- **http://java.sun.com/products/archive/**

OpenView Internet Service Impact Information

OVIS is required if you want to receive operational impact information from Internet Services, in order to assess the impact of operational failures on the flows that you define.

OVIS is also required if you want OVIS to report OVIS metric information about the business flows that you define in OVBPI.

OpenView Operations Service Impact Information

OVO is required if you want to receive operational impact information from Service Navigator or OpenView Operations for Windows. The OVBPI OVO Adapter accepts messages from OVO and sends them on to OVBPI as Service events. OVO needs to be installed and running before the OVBPI OVO Adapter is installed.

OpenView SOA Manager Service Impact Information

SOA Manager is required if you want OVBPI to report on business service impact information from SOA Manager. The OVBPI OpenView Web Services Adapter polls SOA Manager for impact events and makes them available as Web Services to OVBPI Server.

You can also configure OVBPI to receive business events from SOA Manager, which can then be used to progress your OVBPI business flows.

SMTP Mail Server

Access to an SMTP mail server is required for the Notification Server component of OVBPI. This component is responsible for sending business alerts as email messages to the users who are configured to receive them.

OpenView Select Access

HP OpenView Select Access is required if you want to have the OVBPI clients authorized using Select Access polices. Select Access is part of the HP Identity Management suite of products; it provides policy-based authentication and authorization for your applications

OpenView Service Desk

There are three ways that OVBPI interoperates with HP OpenView Service Desk:

- The Notification Server component of OVBPI can send OpenView messages to OpenView Operations and ultimately to OpenView Service Desk. If you want to take advantage of this feature, you need to have OpenView Operations installed and Service Desk configured to receive these OpenView messages.
- The OVBPI Business Process Dashboard enables you to associate the service information received from OpenView Operations (OVO) and OpenView Internet Services (OVIS) with OpenView Service Desk (OVSD) service calls and incidents. You configure this as a post-installation task.
- You can use OVBPI to monitor your OVSD ITIL processes for the following HP OpenView Service Desk modules:
  - OVSD Helpdesk Manager
  - OVSD Change Manager

There are different configuration tasks for each of these integrations, and all are completed as post-installation tasks.

Email Client

An email client is required in order that the users configured to receive email notifications can access them.

Web Browser

An Internet Explorer browser is required for:

- using the Metric definer to create and modify business process metrics.
- configuring notification request for the OVBPI Notification Server.
- viewing information through the OVBPI Dashboard.
- using the Repository Explorer to view and manipulate design-time flow data in the Model Repository database tables.
- using the Intervention Client to manage active flow instances.

There are no OVBPI specific configuration requirements for the Web browser, with the exception of the need for the Web Browser to be able to run JavaScript. As an example, the ability to run Javscript is enabled through the following menu option for Internet Explorer version 6.0:

`Tools|Internet Options|Security`

From the `Security` tab, select `Local intranet` and `Custom Level` to access the `Scripting` options. Make sure that all the `Scripting` options are enabled.

You might also need to set the `Scripting` options for `Trusted sites` in the same way, depending on your configuration.

The Web server used by OVBPI is Tomcat.

OVBPI Server Database Requirements

OVBPI uses a database to store data for flows and for administration. This database information needs to be accessible to the OVBPI Server and can be configured to be either Microsoft SQL Server or Oracle.

The following sections describe some topics that you need to be aware of that relate to the OVBPI use of the database. You are advised to read these sections and use the information to tailor your database configuration if appropriate. Some of the tasks described must be completed before you start the OVBPI installation.

The following sections describe what you need to consider for the OVBPI use of the database and includes:

- Configuration requirements for the Microsoft SQL Server database, which are specific to OVBPI; see section Microsoft SQL Server Database Configuration on page 59.
- Configuration requirements for the Oracle Server database, which are specific to OVBPI; see section Oracle Database Configuration on page 66.

Installation Type and Database Requirement

The following table shows where a database is required for each installation option.

Table 18 Installation Type and Database Requirement

Installation Option	Database access required?
Server and Modeler Installation on Windows	Yes
Server Only Installation on Windows	Yes
Dashboards Only Installation	Yes
OVO Adapter Installation (HP-UX or Windows)	No
Modeler Only Installation on Windows	No
OVBPI Custom Probe Installation	No

You must ensure that the database is installed and configured before you select the following OVBPI installation options:

- OVBPI Server and Modeler installation
- OVBPI Server Only installation

The `Dashboards Only` installation requires a database, however, it is not needed for the installation to complete successful. The database details can be configured at a later time.

It is strongly recommended that the OVBPI database schema objects; for example, tables, stored procedures, triggers are installed such that they are owned exclusively by OVBPI. In the case of Microsoft SQL Server, there should be a Database exclusively for OVBPI. In the case of Oracle, there should be an Oracle User exclusively for OVBPI. There are a number of reasons for this:

- it removes the possibility of name clashes for tables that OVBPI needs to create in the database.
- it enables you to backup and recover the OVBPI database tables in isolation from other data in the database, if required.
- you can copy (archive) the OVBPI data independently of other data in the database.
- if there is a problem with the installation, you can clean out the Microsoft SQL Server Database or Oracle User data and restart the procedure without impacting data for other database applications.

The OVBPI installation assumes that the Microsoft SQL Server Database and Oracle User are exclusive to OVBPI, and therefore the installer can safely delete and recreate database schema objects, including tables, views, stored procedures. If this is not the case, you need to check that the database tables OVBPI uses do not clash with any tables that already exist in the database. The *OpenView Business Process Insight Reference Guide* provides details of the database schema and lists all the database tables used by OVBPI.

Microsoft SQL Server Database Configuration

The following sections describe the OVBPI requirements on the Microsoft SQL Server database that you need to be aware of before starting the OVBPI installation. These requirements need to be addressed before installing any of the OVBPI components that use the OVBPI database.

If you plan to use Oracle as your database, refer to section Oracle Database Configuration on page 66.

OVBPI Data File Requirements

The OVBPI SQL Server data files are initially configured with the following properties:

- Initial file size of 50MB
- File growth in steps of 100MBs
- Automatic file growth with no maximum size

The 50MB initial file size is sufficient for approximately 1,000 instances of a five-node business flow with one business process metric defined. This is a business process metric where no statistics are being recorded, that is, you have set the `Collection Interval` to zero (0).

These space requirements assume that each node instance is started and completed only once. Whenever a node instance starts for the first time, or is restarted, a row is added to the `Node_Instance_StartedTimes` database table. Therefore each time a node is restarted, it requires additional space in the database.

If your implementation has flows that exceed 1,000 instances and 5 nodes, you need to analyses whether the way that OVBPI has configured the data files is appropriate and make any necessary changes. You also need to make sure that you allow space for your database transaction log files and for the files that might be created as part of your backup strategy.

There are some examples listed in the following sections that describe the space requirements for difference scenarios. If you know that your implementation will require a signification amount of space for database tables, you are advised to make the appropriate changes to the data file sizes and not rely on using the automatic growth of the data files. Configuring the database correctly from the start maximizes the efficiency of the database operation.

If you need to increase the data file size for the OVBPI database, use the Microsoft SQL Server Enterprise Manager to increase the maximum file size. This can be done by right-clicking on the OVBPI database entry in the Explorer Tree, within the SQL Server Enterprise Manager, and selecting the `Data Files` tab from `Properties`.

The following are some examples of the space requirements for OVBPI-specific data.

Example 1: 100,000 Instances, 5 Nodes and 1 Business Process Metric

In this example, it is assumed that you have 100,000 instances, a five-node business flow, and one business process metric set for each flow instance. In this example, you are not collecting any metric statistics date.

The Microsoft SQL Server data file space requirements for the flow instances and the nodes in this scenario are approximately 1,100MB, with a transaction log file that can also grow to 1,100MB.

You also need to add an additional 20 percent to this figure for the business process metric that you have defined, this gives an overall total of 1,330MB, with a transaction log file that can also grow to 1,330MB.

Example 2: 100,000 Instances, 5 Nodes and 2 Business Process Metrics

In this example, it is assumed that you have 100,000 instances, a five-node business flow, and two business process metrics set for each flow instance. In this example you are not collecting any metric statistics data.

This is basically the same as Example 1; however, additional space is require to account for the extra business process metric.

The Microsoft SQL Server data file space requirements for the flow instances are the same as Example 1 (1,100MB, with a transaction log file that can also grow to 1,100MB.).

For two business process metrics, you need to add an additional 30 percent to this figure. This gives an overall total of 1,430MB, with a transaction log file that can also grow to 1,430MB.

In general, you need to add 10 percent of the total required for the instances and nodes for each business process metric, plus a base 10 percent; for example:

- One business process metric is an additional 20 percent
- Five business process metrics is an additional 60 percent
- Eight business process metrics is an additional 90 percent

Example 3: One Set of Metric Statistics Collected in Each Hour

In this example, the tablespace requirements for metric statistics are examined. These space requirements are not based on the number of flow instances or nodes, but on the number of sets of metrics statistics calculated and the frequency that the statistics are collected, for example, hourly, daily or by the minute and so on.

The space requirements calculated for metric statistics need to be added to the space requirements for the flow instances calculated in examples 1 and 2.

If you are collecting metric statistics for one business process metric every hour, you require 24K of additional space for each day that you want to keep a copy of the metric. Therefore, if you are keeping your statistics for a year, you require 9MB (24K x 365) of space for the data file .

Note that this figure is for one set of metric statistics. This space requirement is required for each set of statistics that you define.

Example 4: One Set of Metric Statistics Collected for Each Five Minutes

If you are collecting metric statistics for one business process metric every five minutes, you require 288K of additional space for each day that you want to keep a copy of the metric. Therefore, if you are keeping your statistics for a year, you require 105MB (288K x 365) of space for the data file.

Note that this figure is for one set of metric statistics. This space requirement is required for each set of statistics that you define.

Example 5: Using Groups for Statistics

The use of groups for your metric statistics adds another dimension to the space requirements for the Microsoft SQL Server data file.

If you have configured Groups for business process metric statistics, you need to allow additional space as follows:

A full set of statistics is calculated for each group member, plus the basic set of statistics, which is always calculated. Therefore, if you have defined a business process metric to group results into four categories, for example, four airport terminals, you need to multiply the figures calculated in Examples 3 and 4 by a factor of five (one for each group, plus one for the overall set of statistics).

Again these figures need to be added to those already calculated for the flow instances and nodes in the previous examples.

Restricting the Size of the Transaction Log File

In addition, you might need to limit the size of the database transaction log files as these can get very large. By default, the transaction log files are not restricted to a particular size. To modify the settings for the transaction log file, select the `Transaction Log` tab from the database `Properties` option.

The size of the transaction log files need to be large enough to accept the largest possible transaction that OVBPI can generate, in order to ensure that you can recover data following a failure. Refer to the *OpenView Business Process Insight System Management Guide* for details of the backup and recovery considerations that you need to be aware of for OVBPI and how these impact the size of the transaction log.

Database Case Sensitivity

If you intend to allow the OVBPI installer to create the OVBPI database instance it requires, you do not need to read this section. When the OVBPI installer creates its database instance, it creates an instance with the characteristics that it requires, including the case sensitivity setting.

If you intend to create an instance of the SQL Server database and then provide the details of this database instance to the OVBPI installer, you need to be aware that the SQL Server database can be set up to be case insensitive or case sensitive. OVBPI does not operate with a database that is case sensitive and if you attempt to install OVBPI using a case sensitive database instance, the installation fails and reports the following error:

```
The database specified cannot be used for OVBPI data as it
does not have case-insensitive collation set. You must
reconfigure the specified database for case-insensitive
collation, or select a different database that is already
case-insensitive.
```

If you are creating the database instance for OVBPI data, you must create the instance with the Collation Name set to Case Insensitive.

If your database instance has already been created, you can find out whether it is case insensitive or case sensitive by checking the properties of the database instance from within SQL Server Enterprise Manager. The Collation Name property contains a string, which is one way of identifying the case sensitivity of the database instance, as follows:

- _CI, if the database instance is configured to be Case Insensitive.
- _CS, if the database instance is configured to be Cases Sensitive.
- _BIN, if the database instance is configured for a binary collation, which is always case sensitive.

If there is no Collation value set for the database instance, the database instance inherits its Collation from the Database Server settings. If the Database Server Collation is set to be case insensitive, the OVBPI installation can proceed. If the Database Server Collation is set to be case sensitive, the OVBPI installation fails and reports the error shown above. The inherited collation is shown through the Collation Name parameter as described above.

Database Authentication Mode

When using Microsoft SQL Server with OVBPI, you need to ensure that when prompted for the Authentication Mode to use within SQL Server that you select the option for `Mixed Mode`, and not `Windows Authentication Mode`. This is because the JDBC interface needs the SQL Server Authentication Mode activated.

You can modify the authentication mode from `Windows Authentication` to be `SQL Server and Windows Authentication` without affecting other applications that use the database.

Check the authentication mode for your installation of Microsoft SQL Server as follows:

1. Select :

   `Start | Programs | Microsoft SQL Server | Enterprise Manager`

2. Expand the Tree View and double-click `SQL Server Group`.
3. In the right-hand pane, right-click on the SQL Server Group called `(local) (Windows NT)` and select the `Properties` option.
4. Select the `Security` tab.
5. In the Security Window ensure that the following authentication option is selected:

   `SQL Server and Windows`

6. Click `OK` if you have modified the entry, or `Cancel` if the authentication setting is correct.
7. If you have modified the authentication setting, you need to pause, stop and restart the database for the changes to take effect.

SQL Server Database User Properties

The OVBPI installation procedure creates a database user, with all the correct properties; however, if you have an existing database user that you want to use for the OVBPI database, you can do this. You are strongly advised to let the installation procedure create the database user that is specific to OVBPI.

If you allow the installation procedure to create the database User, you do not need to take any action as the database User is created with all the required roles. If you intend to specify an already defined User for OVBPI within the installation procedure, you need to ensure that the following are completed before starting the OVBPI installation:

- the existing database User has access to the database where the OVBPI tables are created.
- the database used by OVBPI should ideally be the default database for machine; this is not mandatory, but preferred.
- the following database roles are permitted for the OVBPI database User:
  - `public`
  - `db_ddladmin`
- the following database roles are not permitted for the OVBPI database User:
  - `db_denydatareader`
  - `db_denydatawriter`

When you run the OVBPI installation procedure and specify the database User, the installation procedure then configures the User to be a member of the following database roles:

- `public`
- `db_ddladmin`
- `db_datareader`
- `db_datawriter`

If you create your own database user, you are advised to check the following log file after the OVBPI installation is complete to make sure that the SQL Server database tables have all been created correctly:

OVBPI-install-dir\HP_OpenView_Business_Process_Insight_DbSetupLog.log

This file is created when there are errors to report after OVBPI has made a successful connection to the database. If there are errors reported in the file, you need to investigate them and make any necessary corrections. You must then uninstall and reinstall OVBPI to reconfigure the database options.

If this log file does not exist, there are no errors.

Oracle Database Configuration

The following sections describe the OVBPI requirements on the Oracle database that you need to be aware of before starting the OVBPI installation. These requirements need to be understood before installing any of the OVBPI components that use the OVBPI database.

- Configuring an Oracle Database Server on an HP-UX System on page 66
- Tablespace Space Requirements on page 67
- Character Set for Oracle Database on page 70
- Oracle Cursor Settings on page 71
- Oracle Server Database User Permissions on page 72

If you plan to use a Microsoft SQL Server database, refer to section Microsoft SQL Server Database Configuration on page 59.

Configuring an Oracle Database Server on an HP-UX System

If you intend to use an Oracle Database Server that is installed on an HP-UX system, you must create an Oracle User for OVBPI before starting the installation. If you do not, the OVBPI installation fails.

The Oracle User that you create must be configured to have both a default and a temporary tablespace. You are strongly advised to assign a default tablespace that is specific to OVBPI and not shared by other applications.

In addition, you need to make sure that an `INDX` tablespace is assigned to the Oracle User that you create for OVBPI. Depending on the version of Oracle that you are using, you might have to create this `INDX` tablespace.

There are also permission requirements for the Oracle User that you create; these are described in section Oracle Server Database User Permissions on page 72.

Tablespace Space Requirements

At installation, the user tablespace size is set as follows:

- Initial tablespace size of 50MB
- File growth in steps of 100MBs
- Automatic file growth with no maximum size

The 50MB initial tablespace size is sufficient for approximately 1,000 instances of a five-node business flow with one business process metric defined. This is a business process metric where no statistics are being recorded, that is, you have set the `Collection Interval` to zero (0).

This section provides a number examples of other scenarios for cases where you want to estimate tablespace size for additional flows, or for collecting statistics for business process metrics.

It is likely that your implementation will have flows that exceed 1,000 instances and 5 nodes, and also have multiple business process metrics set and collect metric statistics. As a result you need to analyze whether the way that OVBPI has configured the tablespace size is appropriate for your implementation and make any necessary changes.

There are some examples listed in the following sections that describe the tablespace requirements for difference scenarios. If you know that your implementation will require a signification amount of space for database tables, you are advised to make the appropriate changes to the tablespace size

and not rely on using the automatic growth of the tablespace. Configuring the database correctly from the start maximizes the efficiency of the database operation.

The tablespace requirements in the examples that follow assume that each node instance is started and completed only once. Whenever a node instance starts for the first time, or is restarted, a row is added to the Node_Instance_StartedTimes database table. Therefore each time a node is restarted, it requires additional space in the database.

Use the Oracle Server Management tools to modify the size of the OVBPI tablespace.

Example 1: 100,000 Instances, 5 Nodes and 1 Business Process Metric

In this example, it is assumed that you have 100,000 instances, a five-node business flow, and one business process metric set for each flow instance. In this example, you are not collecting any metric statistics data.

The tablespace requirements for an Oracle Server are as follows:

- *username*_TS needs to be a total of 720MB as follows:
  - 600MB for the 100,000 instances and the five nodes.
  - 120MB (an additional 20 percent) for the business process metric.
- INDX is 200MB (one third of *username*_TS)
- SYSTEM is 264 MB, which is the default for an Oracle Server installation, but will vary according to your Oracle implementation.

  The OVBPI Data Dictionary information held in the SYSTEM tablespace is relatively static. The main influence on the requirements for the SYSTEM tablespace is the number of deployed data instances. You should monitor the SYSTEM tablespace periodically to check whether it needs more space.

Example 2: 100,000 Instances, 5 Nodes and 2 Business Process Metrics

In this example, it is assumed that you have 100,000 instances, a five-node business flow, and two business process metrics set for each flow instance. In this example you are not collecting any metric statistics date.

This is basically the same as Example 1; however, additional space is require for *username*_TS to account for the extra business process metric.

*username*_TS needs to be:

- 600MB for the 100,000 instances and the five nodes.
- 180MB (an additional 30 percent) for the business process metric

This gives a total of 780MB.

In general, you need to add 10 percent of the total required for the instances and nodes for each business process metric, plus a base 10 percent; for example:

- One business process metric is an additional 20 percent
- Five business process metrics is an additional 60 percent
- Eight business process metrics is an additional 90 percent

Example 3: One Set of Metric Statistics Collected in Each Hour

In this example, the tablespace requirements for metric statistics are examined. These space requirements are not based on the number of flow instances or nodes, but on the number of sets of metrics statistics calculated and the frequency that the statistics are collected, for example, hourly, daily or by the minute and so on.

The space requirements calculated for metric statistics need to be added to the space requirements for the flow instances calculated in examples 1 and 2.

If you are collecting metric statistics for one business process metric every hour, you require 24K of additional space for *username*_TS for each day that you want to keep a copy of the metric. Therefore, if you are keeping your statistics for a year, you require 9MB (24K x 365) of space for *username*_TS.

Note that this figure is for one set of metric statistics. This space requirement is required for each set of statistics that you define.

Example 4: One Set of Metric Statistics Collected for Each Five Minutes

If you are collecting metric statistics for one business process metric every five minutes, you require 288K of additional space for *username*_TS for each day that you want to keep a copy of the metric. Therefore, if you are keeping your statistics for a year, you require 105MB (288K x 365) of space for *username*_TS.

Note that this figure is for one set of metric statistics. This space requirement is required for each set of statistics that you define.

Example 5: Using Groups for Statistics

The use of groups for your metric statistics adds another dimension to the space requirements for *username*_TS.

If you have configured Groups for business process metric statistics, you need to allow additional space in *username*_TS as follows:

A full set of statistics is calculated for each group member, plus the basic set of statistics, which is always calculated. Therefore, if you have defined a business process metric to group results into four categories, for example, four airport terminals, you need to multiply the figures calculated in Examples 3 and 4 by a factor of five (one for each group, plus one for the overall set of statistics).

Again these figures need to be added to those already calculated for the flow instances and nodes.

Character Set for Oracle Database

OVBPI does not have any specific requirements for a database character set; however, if you want to support multiple languages simultaneously, from the same data, you are recommended to use a Unicode standard for the encoding form in the Oracle Database. UTF8 is the recommendation for OVBPI.

Using other database character sets can result in characters being lost during conversion between the user input and how the data is stored in the database; For example, using a database character set of ISO Latin1, does not enable you to store Korean language characters in the database. Using a character set such as UTF8 does enable you to store Korean characters in the database.

Other reasons for using UTF8 include:

- When using an Oracle 8 database server using UTF8 is one way of supporting unicode characters. (UTF8 supports both variable-width database character sets and supports Unicode encoding.)
- The OVBPI database clients use JDBC; therefore using UTF8 as the database character set has performance benefits as it reduces the amount of conversion between character sets.

If your database currently uses a form of encoding other than UTF8, then you need to make yourself aware of the restrictions of the encoding method and any potential loss of characters during conversion.

Oracle Cursor Settings

Cursors are used by Oracle to identify objects that are managed through the System Global Area. In the case of OVBPI, one of the uses of cursors is to identify Prepared Statements. For this reason, you need to configure the number of cursors to be equivalent to the number of pooled connections and Prepared Statements that are configured for OVBPI.

How you set the values for cursors within Oracle varies according to the version of Oracle that you are using. If you are using Oracle 9.2.0.5.0 or later, refer to the instructions in section Oracle 9.2.0.5.0 or Later on page 71.

Oracle 9.2.0.5.0 or Later

If you currently have `open_cursors` set to a high value (for example, greater than 1000), it is likely that this is causing large numbers of PL/SQL cursors to be cached in the shared pool.

For Oracle version 9.2.0.5.0 and later the maximum number of cursors that can be cached is determined by the parameter `session_cached_cursors` and not `open_cursors`.

The number of Prepared Statements defined for OVBPI is shown through the Administration Console, and after installing OVBPI for the first time, is set to 10,000 Prepared Statements. Refer to the *OpenView Business Process Insight System Administration Guide*, for details of the value for `Maximum Number of active JDBC Prepared Statements`.

The value for `session_cached_cursors` is set within the Oracle database file:

`init`*`sid`*`.ora`

where *`sid`* is the system identifier for the OVBPI database tables.

You need to make sure that this value for open_cursors is set to be the same as the value for `Maximum Number of active JDBC Prepared Statements`.

Oracle Server Database User Permissions

The OVBPI installation procedure creates a database user, with the correct profile, however, if you have an existing database user that you want to use for the OVBPI database, you can specify this User during the OVBPI installation. Where possible, you are advised to let the installation procedure create the database user, unless there is a strong reason for using your own defined database user.

If you allow the installation procedure to create the Oracle User, you do not need to take any action as the database User is created with all the required privileges. If you intend to specify an already defined User for OVBPI within the installation procedure, you need to ensure that the following are completed before starting the OVBPI installation:

- the User has `QUOTA UNLIMITED` defined on its default tablespace (this is the tablespace where the OVBPI data is created).
- the User has the `CREATE SESSION` privilege granted.

When you run the OVBPI installation, the installation procedure then completes the following for the User that you specify:

- defines `QUOTA UNLIMITED` for the `INDX` tablespace. OVBPI uses the `INDX` tablespace to hold indexes for some of the tables in the OVBPI User's default tablespace. This is done for reasons of performance.
- grants the following privileges to the User:
  - `CREATE SESSION`
  - `CREATE SEQUENCE`
  - `CREATE TABLE`
  - `CREATE VIEW`

- CREATE PROCEDURE
- CREATE TRIGGER
- CREATE ANY INDEX

If you create your own database user, you are advised to check the following log file following the OVBPI installation to make sure that the Oracle database tables have all been created correctly:

OVBPI-install-dir\HP_OpenView_Business_Process_Insight_DbSetupLog.log

This file is created when there are errors to report after OVBPI has made a successful connection to the database. If there are errors reported in the file, you need to investigate them and make any necessary corrections. You must then uninstall and reinstall OVBPI to reconfigure the database options.

If this file does not exist, there are no errors with the connection.

OVBPI Custom Probes for Internet Services Database Requirements

The OVBPI Custom Probes must be installed on the same system as Internet Services Configuration Manager; however, they also need access to the OVBPI data.

If you are using Microsoft SQL Server to store your OVBPI data, then you do not need to complete any additional tasks in order for the custom probes to access this data. However, if you are using an Oracle Server to store your OVBPI data, you need to complete the tasks described in this section before installing the custom probes. These tasks need to be completed on the system where you intend to install the Custom Probes, which is where the OVIS Configuration Manager is also installed.

When using an Oracle Server to store the OVBPI data, you need to configure an Oracle `Net Service` that you then need to enter when you install the OVBPI Custom Probes. You configure an Oracle Net Service using the Net Configuration Assistant.

You also need to make sure that the Oracle Client software for Windows is installed on the OVIS system. The Oracle Client software provides the `Configuration Assistant`, which you use to configure a Net Service Name.

Make a note of the `Net Service Name` that you create as you need to quote it when you install the OVBPI Custom Probes.

You also need to make a note of the Oracle ODBC driver that is configured for the OVBPI database. The ODBC drivers configured for your system are defined in `Administration Tools > Data Sources (ODBC)`, which is accessed from the Control Panel.

What to do Next

When you have completed all the checks and tasks listed in this chapter, continue at Chapter 3, Installing OVBPI to install the OVBPI components.

3 Installing OVBPI

This chapter describes how to install OVBPI and covers the following installation options:

- Server and Modeler installation
- Server Only installation
- Modeler Only installation
- Dashboards Only installation
- OVO Adapter installation
- SOA Manager Adapter installation

In addition, this chapter describes how to install the OVBPI Custom Probes for OVIS. You need only install the probes for OVIS if you intend to use OVIS to monitor OVBPI and report on the business flows. The probes installation is a separate installation procedure and is also available on the distribution media. OVBPI's ability to receive operational reports from OVIS does not require the probes installation.

You can install the OVBPI Custom Probes at any time, there is no relationship between the OVBPI installation and the probes installation; however, OVIS must be installed before installing the OVBPI custom probes.

The following topics are covered in this chapter:

- Tasks to complete before starting the installation; see section Collecting Required Information for Installer on page 77
- The location of the OVBPI installation log files; see section Installation Log Files on page 91
- Server and Modeler Installation on Windows on page 94
- Server Only Installation on Windows on page 106
- Modeler Only Installation on page 108

- Dashboards Only Installation on page 111.
- OVBPI OVO Adapter Installation on page 115
- OVBPI SOA Manager Adapter Installation and Configuration on page 123
- OVBPI Custom Probes for Internet Services Installation on page 121.

Collecting Required Information for Installer

Before starting the installation, make sure that you have completed the following steps:

- Checked the *OpenView Business Process Insight Release Notes* for any additional tasks that you need to complete before and after the installation. The Release Notes are located on the distribution media.
- Worked through the required preinstallation checks listed in Chapter 2, Before Starting the Installation.
- Checked that the Database Server that you plan to use for OVBPI is configured and running (Microsoft SQL Server or Oracle Enterprise Server). The database can be on the same machine as the OVBPI Server or on a different machine.
- Made any database configuration changes required for OVBPI and the OVBPI custom probes, as described in section OVBPI Server Database Requirements on page 57 and section OVBPI Custom Probes for Internet Services Database Requirements on page 74.
- Made a note of the information that you need during the installation as follows. There is a column for you to note the relevant information in the tables in each of the following sections:
  - Information Required for a Server and Modeler Installation on page 78.
  - Information Required for a Server Only Installation on page 83
  - Information Required for a Modeler Only Installation on page 84
  - Information Required for a Dashboards Only Installation on page 84
  - Information Required for an OVO Adapter Installation on page 87
  - Information Required for a SOA Manager Adapter Installation on page 87
  - Information Required for an OVIS Custom Probes Installation on page 89.

Information Required for a Server and Modeler Installation

The information in this section describes what you need to supply for the OVBPI `Server and Modeler` Installation option.

Table 19 lists the general information requested by the OVBPI `Server and Modeler` Installation.

Table 19 General Information Required for a Server and Modeler Installation

Information	Notes	Values
Name of OVBPI installation directory	A default is offered by the installer, which you can override.	
Name of the directory where the J2SE is installed.	The installer offers a location. You need to check that it is correct.	

Table 20 lists the information related to the Microsoft SQL Server Database Server. If you plan to configure OVBPI to use an Oracle Server, you can skip this table and continue at Table 21 on page 81.

Table 20 Microsoft SQL Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Database type	This defines the database that you plan to use for OVBPI flow data. It is either, Oracle Server or Microsoft SQL Server.	Microsoft SQL Server
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of `localhost` is offered by the installer. Accept the default if you are using a local database, or enter the fully-qualified domain name of the machine where the database is running if you are using a remote database.	
SQL Server Database Port Number	This is the port number that Microsoft SQL Server uses to communicate with applications; by default this is port 1433.	

Table 20 Microsoft SQL Server Information Required for a Server and Modeler Installation

Information	Notes	Values
User name and password for a database user that has permission to create schemas and users, plus assign privileges to users.	The OVBPI schema is created as part of the installation process, as is the database user. The installer needs a user with sufficient privileges to create the schema and the new database user. Obtain the credentials for a suitable user from your database administrator. By default the installer offers the `sa` account.	

Table 20 Microsoft SQL Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Name for the SQL Server database	This is the name of the SQL Server database created for OVBPI. By default you are offered the name `OvbpiSchema`. If you want a different name, you can replace the default offered during installation. You are strongly recommended to assign a database name that is specific to OVBPI.	
User name and password details of the OVBPI database user.	The OVBPI machine needs a database account that it can use to create and modify the OVBPI database tables. This might be a user that you have already created through SQL Server, in which case you need to enter the correct credentials. Alternatively, you can provide a new user name and the installation procedure will create the user. If you have created a user, you need to make sure that the user has the correct permissions set; see SQL Server Database User Properties on page 65. The database username must be between 1 and 128 characters and comprise letters, digits, and the underscore character (_); it must start with either a letter, or the underscore character. The database password can comprise any character, with the exception of the space ( ) and backslash (\) characters; it cannot start with a dollar ($) or at (@) character.	
Directory where the database data files are stored	The installation needs to know where to create the database files. A default is offered by the OVBPI installation. If the location of the database files has not been changed within SQL Server, accept the default.	

Table 21 lists the information related to the Oracle Database Server. If you plan to configure OVBPI to use an Microsoft SQL Server, refer to the questions listed in Table 20 on page 78.

Table 21 Oracle Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Database type	This defines the database that you plan to use for OVBPI flow data. It is either, Oracle Server or Microsoft SQL Server.	Oracle
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of `localhost` is offered by the installer. Accept the default if you are using a local database, or enter the fully-qualified domain name of the machine where the database is running if you are using a remote database.	
Oracle Server Database Port Number	This is the port number that the Oracle Server uses to communicate with applications. By default it uses port 1521.	
Oracle database instance identifier	The installation requests a value for the Oracle database instance identifier (SID), which is where the OVBPI tables are created. Check with your database administrator for the correct value of the SID for OVBPI. There might be a SID that is specific to OVBPI.	

Table 21 Oracle Server Information Required for a Server and Modeler Installation

Information	Notes	Values
User name and password for a database user that has permission to create the tablespace and user for OVBPI.	The OVBPI tablespace is created as part of the installation process, as is the database user. The user name entered to create these needs the privileges to: create the OVBPI schema, create the OVBPI user and set up permission to read from the System tables. Obtain the credentials for a suitable user from your database administrator. You are strongly recommended to assign a User that is specific to OVBPI.	
User name and password details of the OVBPI database user.[a]	The OVBPI machine needs a database account that it can use to create and modify the OVBPI database tables. This might be a user that you have already created through Oracle Server, in which case you need to enter the correct credentials. Alternatively, you can provide a new user name and the installation procedure creates the user. If you have created a user, you need to make sure that the user has the correct permissions; see Oracle Server Database User Permissions on page 72. The database username must be between 1 and 27 characters and can comprise letters, digits and the underscore (_) character; it must start with either a letter or the underscore character. The database password must be between 1 and 30 characters and can comprise letters, digits and any punctuation characters, with the exception of the space ( ) and the brace ({}) characters.	

Table 21 Oracle Server Information Required for a Server and Modeler Installation

Information	Notes	Values
Directory where the database data files are stored	The installation needs to know where to create the database files. A default is offered by the OVBPI installation, but you need to check with your database administrator for confirmation about where the database files should be created.	

a. If you intend to use an Oracle Database Server that is installed on an HP-UX machine, you must create a database user for OVBPI before starting the installation; if you do not, the installation cannot proceed. Refer to section OVBPI Server Database Requirements on page 57 for more details.

You enter the database details when you install OVBPI; however, once OVBPI is installed and configured with these details, none of the database details can be changed, with the exception of the password for the OVBPI Database or User. The database configuration details are shown through the OVBPI Administration console for your reference, however, you cannot modify them.

Details of how to configure your OVBPI machine to integrate with email, HP OpenView Internet Services, HP OpenView Service Desk and OpenView Operations following a successful installation are provided in the *OpenView Business Process Insight Reference Guide*.

Information Required for a Server Only Installation

The information required for a Server Only installation is the same as that required for a Server and Modeler installation. Make sure that you have the information listed in Table 19 to Table 21 available before starting the installation.

Information Required for a Modeler Only Installation

The OVBPI Modeler can be installed on the same machine as the OVBPI Server, or on a machine remote from the OVBPI Server.

The OVBPI Modeler needs to connect to the Model Repository, which is part of the OVBPI Server. You should therefore install the OVBPI Server before installing the OVBPI Modeler.

Before starting an OVBPI Modeler installation, make sure that you have the following information available.

Table 22 Information Required for an OVBPI Modeler Installation

Information	Notes	Values
Name of OVBPI installation directory	A default is offered by the installer that you can override.	
Name of the directory where the J2SE is installed.	The installer offers a location, you need to check that it is correct.	

Information Required for a Dashboards Only Installation

The `OVBPI Dashboards` installation can be used to install the Business Process Dashboard on a machine that is remote from the OVBPI Server.

Table 23, Table 24 and Table 25 list the information requested by the OVBPI `Dashboards Only` Installation.

Table 23 General Information Required for a Dashboards Only Installation

Information	Notes	Values
Name of OVBPI installation directory	A default is offered by the installer that you can override.	
Name of the directory where the J2SE is installed.	The installer offers a location, you need to check that it is correct.	

Table 24 lists the information related to the Microsoft SQL Server Database Server. If you have configured your OVBPI Server to use an Oracle Server, you can skip this table and continue at Table 21 on page 81.

Table 24 Microsoft SQL Server Information Required for a Dashboards Only Installation

Information	Notes	Values
Database type	This defines the database that is configured for the OVBPI flow data. Select either, Oracle Server or Microsoft SQL Server.	Microsoft SQL Server
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of `localhost` is offered by the installer. Enter the fully-qualified domain name of the machine where the database is running.	
SQL Server Database Port Number	This is the port number that Microsoft SQL Server uses to communicate with applications; by default this is port 1433.	
Name for the SQL Server database	This is the name of the SQL Server database created for OVBPI. The SQL Server database that you create must have a Collation set to be case insensitive.	
User name and password details of the OVBPI database user.	The OVBPI database user and password details for accessing the OVBPI database tables. The need to match those used for creating the tables when you installed the OVBPI Server.	

Table 25 lists the information related to the Oracle Database Server connection details. If you have configured OVBPI to use an Microsoft SQL Server, refer to the questions listed in Table 24 on page 85.

Table 25 Oracle Server Connection Details for a Dashboards Only Installation

Information	Notes	Values
Database type	This defines the database that you have configured for your OVBPI flow data.	Oracle
Hostname of the machine where the database is running. This can be a local or remote machine.	The default of `localhost` is offered by the installer. Enter the fully-qualified domain name of the machine where the database is running.	
Oracle Server Database Port Number	This is the port number that the Oracle Server uses to communicate with applications. By default it uses port 1521.	
Oracle database instance identifier	The installation requests a value for the Oracle database instance identifier (SID), which is where the OVBPI tables are created.	
User name and password details of the OVBPI database user	The OVBPI database user and password details for accessing the OVBPI database tables. The need to match those used for creating the tables when you installed the OVBPI Server.	

Details of how to re-configure your OVBPI machine after it is installed are provided in the *OpenView Business Process Insight System Administration Guide*.

Information Required for an OVO Adapter Installation

The OVBPI OVO Adapter for HP-UX need only be installed if you plan to use Service Navigator as a source for operational events. The OVO Adapter for HP-UX must be installed on the same machine as Service Navigator.

The OVO Adapter for Windows can be run on the same machine as the OVBPI Server or on a different machine. The adapter is silently installed with the OVBPI Server, so no further installation steps are required. If you want to use the OVO Adapter for Windows on a different machine, you need to install it as described in this section.

Before starting an OVO Adapter installation, make sure that you have the following information available.

Table 26 Information Required for an OVO Adapter Installation

Information	Notes	Values
Name for OVBPI installation directory	A default is offered by the installer that you can override.	
Name of the directory where the J2SE is installed	The installer offers a location, you need to check that it is correct.	

Details of how to configure your OVBPI machine after the adapter is installed are provided in the *OpenView Business Process Insight System Administration Guide*.

Information Required for a SOA Manager Adapter Installation

The SOA Manager adapter need be installed only if you want to use SOA Manager as a source of operational events. The adapter can be installed on any Windows machine and configured to access the machine where SOA Manager is running.

You install the SOA Manager Adapter files from the zip archive provided on the OVBPI distribution media.

You can configure and start only one instance of the SOA Manager adapter for each installation. Starting multiple instances of the adapter from the same installation can have unpredictable results.

If you want to run multiple instances of the adapter on one machine, you can achieve this by installing the adapter multiple times and starting one adapter instance from each installation.

You need the following information available to install and set up the adapter on the SOA Manager machine.

Table 27 Information Required for an SOA Manager Adapter Installation

Information	Notes	Values
The name of the SOA Manager Web Service that contains the catalog of Web Services that it exposes	This is the SOA Manager Web Service that starts with the following string: `WsmfServiceCatalog`... The SOA Manager Web services are listed at: `http://`*`hostname`*`:`*`port`*`/wsmf/services` where: • *`hostname`*, is the host name of the machine where SOA Manager is running. This is described as the next parameter in this table. • *`port`*, is the port number used by SOA Manager to publish its Web Services. This is described more fully later in this table.	

Table 27 Information Required for an SOA Manager Adapter Installation

Information	Notes	Values
Hostname of the machine where SOA Manager is running	If no hostname is specified, a value of `localhost` is assumed.	
Port number used by SOA Manager to publish its Web Services	If no port number is specified, a value of `5002` is used.	
Port Number used to publish the SOA Manager adapter as a Web Service. This is the Axis port number as installed with the adapter.	If no port number is specified, a value of `18097` is used.	

Information Required for an OVIS Custom Probes Installation

The OVBPI Custom Probes for Internet Services need be installed only if you want OVIS to monitor OVBPI metrics relating to your business flows. Refer to the *OpenView Business Process Insight Reference Guide* for details of the function of the probes.

The probes must be installed on the same machine as the OVIS Management Server.

There is a separate installation program on the distribution media for the custom probes installation.

Table 28 Information Required for an OVBPI Custom Probes Installation

Information	Notes	Values
Name of Custom Probes installation directory	A default is offered by the installer that you can override.	
Type of database that OVBPI is configured to use.	This defines the type of database that you have configured for OVBPI, for example, Oracle or Microsoft SQL Server.	

Table 28 Information Required for an OVBPI Custom Probes Installation

Information	Notes	Values
Oracle ODBC Driver Name	This is the name of the Oracle ODBC driver configured for the OVBPI database. The question is asked only where you select Oracle as the database type during the installation; see section OVBPI Custom Probes for Internet Services Database Requirements on page 74.	
Oracle Net Service Name	This is name that you have configured for the Oracle Net Service Name using the Net8 Configuration Assistant. The question is asked only where you select Oracle as the database type during the installation; see section OVBPI Custom Probes for Internet Services Database Requirements on page 74.	
Microsoft SQL Server hostname	This is the name of the machine where SQL Server database that OVBPI is using is installed. This question is asked only where you select `MS SQL Server` as the database type during the installation; see section OVBPI Custom Probes for Internet Services Database Requirements on page 74.	
Microsoft SQL Server database name	This is the name of the database that is configured for the OVBPI data in Microsoft SQL. This question is asked only where you select `MS SQL Server` as the database type during the installation; see section OVBPI Custom Probes for Internet Services Database Requirements on page 74.	

Installation Log Files

The following sections describe the installation log files that are created when the OVBPI components are installed.

OVBPI Installation Log Files

The log file for the OVBPI installation is located in the OVBPI root installation directory as follows:

- *OVBPI-install-dir*\HP_OpenView_Business_Process_Insight_InstallLog.log (Windows)
- *OVBPI-install-dir*/HP_OpenView_Business_Process_Insight_InstallLog.log (HP-UX)

Database Log Files

The installation is also creates a log file created for problems encountered by the OVBPI installer when creating, or migrating, the database, database user and database tables. This file is called:

OVBPI-install-dir\HP_OpenView_Business_Process_Insight_DBSetupLog.log

This file is created when there are errors to report after OVBPI has made a successful connection to the database. This log file contains errors relating to the SQL scripts that the OVBPI installer runs, and not database connection errors.

If there are no problems encountered, this log file is not created.

OVBPI Custom Probes Log File

The log file for the OVBPI custom probes installation is located as follows:

OVIS-install-dir\HP_OpenView_Business_Process_Insight_Custom_Probes_for_Internet_Services_InstallLog.log

SOA Manager Adapter Installation Log

All information related to unpacking the archive zip file and starting the SOA Manager adapter is reported directly to the Window where you are executing the commands.

Installing the OVBPI Components

The following sections describe the installation process for each of the following installation options:

- Server and Modeler Installation on Windows on page 94.
- Server Only Installation on Windows on page 106.
- Modeler Only Installation on page 108.
- Dashboards Only Installation on page 111
- OVBPI Custom Probes for Internet Services Installation on page 121.
- OVBPI OVO Adapter Installation on page 115.

Server and Modeler Installation on Windows

This section describes the steps for installing the all the OVBPI components on a Windows machine. Before starting the installation, make sure that you have:

- shut down all applications that use Autopass License Management on the machine where you intend to install OVBPI. If you do not, you might not be able to use these applications or OVBPI following the OVBPI installation.
- read section Information Required for a Server and Modeler Installation on page 78
- the system environment variable for `JAVA_HOME` is set.

If you intend to use an Oracle Database Server that is installed on an HP-UX machine, you must create a Database User for OVBPI before starting the installation; if you do not, the installation fails. Refer to section OVBPI Server Database Requirements on page 57 for more details.

Complete the steps described in the following sections to install all the OVBPI components for the first time. The steps are subdivided into logical areas so they are easier to follow. You need to complete the steps that are related to the choices that you make during the installation.

Introduction

Starting the installation:

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive\i386\ovbpi-install.exe

   You are presented with an introduction to the installation. Click `Next` to start the installation.

   Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

   If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section J2SE on page 52. If this does not resolve the problem, you need to remove all older versions of the J2SE from your machine.

   When you have corrected the problem, restart the installation.

General OVBPI Settings

Answer the following questions relating to installation directory, installation type and J2SE location:

1. From the `Choose Install Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented. Click `Next` to continue.

   You can install only one OVBPI Server on each machine. You must not install and configure multiple OVBPI Servers on a single machine.

2. From the `Choose Product Features` dialog, select `Server and Modeler` Installation and click `Next`.

   If the installer detects one or more OpenView products that use the OpenView License Manager (Autopass) are installed (including a previous version of OVBPI), it displays a Warning message. Select `Next` to confirm that you have shutdown all other OpenView products, or select `Cancel` to abort the installation.

3. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.

Section OVBPI Database Settings on page 96 describes the questions relating the database that you intend to use to use to store the OVBPI flow data.

OVBPI Database Settings

OVBPI uses a database to store its flow definitions and flow status information. You need to answer questions relating to the configuration of the database as part of the installation.

1. From the `OVBPI Database Type` dialog, select the database type that you intend to configure for OVBPI. This can be either `Microsoft SQL Server` or `Oracle`.

   For Microsoft SQL Server, select `Microsoft SQL Server`, click `Next` and continue at section Microsoft SQL Server Database on page 97.

   For an Oracle Server, select `Oracle`, click `Next` and continue at section Oracle Server Database on page 99.

Microsoft SQL Server Database

The following questions relate to the Microsoft SQL Server database questions for OVBPI. These questions relate to values that you have entered when installing the Microsoft SQL Server. If you do not know the answers to these questions, talk to the person who installed Microsoft SQL Server for the information that you need.

1. From the `Microsoft SQL Server connection details` dialog, enter the details for the Microsoft SQL Server database as follows:

   — MS SQL Server host

   Enter the fully qualified domain name of the machine where the Microsoft SQL Server database is installed. You can used `localhost` to specify the machine name if appropriate.

   — MS SQL Server port

   Enter the port number for the database if the default offered is not correct. The default offered is the standard port number used by Microsoft SQL Server, you do not need to change this unless you have configured Microsoft SQL Server to use an alternative port number.

   — Admin username

   Enter the login username for a database user that has permission to create the OVBPI database, and where appropriate the OVBPI user; for example, the system administrator user (`sa`).

   — Admin password

   Enter the password for the database user specified in the previous step.

   When you have entered all the required information, click `Next`.

2. From the `Microsoft SQL Server user details` dialog, enter the details to create the OVBPI database tables as follows:

   — Database name

     Enter the name that you want to give to the OVBPI database, or accept the default name offered.

   — Username

     Enter the username that OVBPI can use to log into the database to access its tables. A default name is offered for the username, which you can accept.

   — Password

     Enter a password for the user entered in the previous step.

   — Confirm password

     Reenter the password for the user as confirmation.

     Make sure that you remember these user name and password details as you will need them in the future.

   — Database file directory

     Enter the location of the database directory files. The installer offers a directory name based on the location following a default Microsoft SQL Server installation. Check the directory details are correct and either accept the directory offered, or enter new directory details.

   When you have entered all the required information, click `Next`; you are then presented with the pre-installation summary.

   If you are presented with and error dialog labeled `Database Tables Exist`, the installer has detected database tables already defined in the database with the same names as the tables it needs to create for OVBPI. This message is also displayed in the case for other database functions, such as Views, Stored Procedure, Triggers and so on.

   These database functions might be left from a previous installation, where you have uninstalled OVBPI and selected not to remove the OVBPI data; they could be tables from another application that have the same name as the default OVBPI tables; or they could be user-defined.

If you click `Remove Existing Database Contents`, the installer continues with the installation and deletes and recreates the all the database functions that OVBPI requires. Alternatively, you can:

— Enter an alternative database name.

  Click `New Database User` to dismiss the error dialog and the installer returns you to the `Microsoft SQL Server user details` dialog where you can enter a different name for the database.

— Cancel the installation, remove or rename the OVBPI tables that already exist and then restart the installation.

Choose the option that you want to continue with and either restart the installation, or continue at section Pre-Installation Summary on page 101 as appropriate.

If you are presented with an error indicating that the database collation setting is incorrect, you need to exit from the installation and refer to section Database Case Sensitivity on page 63. When you have resolved the problem, you can restart the installation.

Oracle Server Database

The following questions relate to the Oracle Server database that you have configured for OVBPI. These questions relate to values that you have entered when installing the Oracle Server. If you do not know the answers to these questions, talk to the person who installed the Oracle Server for the information that you need.

1. From the `Oracle connection details` dialog, enter the following database details:

   — Oracle host

     Enter the fully qualified domain name of the machine where the Oracle server is installed. You can used `localhost` to specify the machine name if appropriate.

   — Oracle port

     Enter the port number for the database if the default offered is not correct. The default offered is the standard port number used by Oracle, you do not need to change this unless you have configured Oracle to use an alternative port number.

— Oracle SID

  Enter the SID that you want to use for the OVBPI database tables.

— Admin username

  Enter the login username for a database user that has permission to create the OVBPI database, and where appropriate the OVBPI user; for example, the system user (`system`).

— Admin password

  Enter the password for the database user specified in the previous step.

When you have entered all the required information, click `Next`.

2. From the `Oracle user details` dialog, enter the details to create the OVBPI database tables as follows:

— Username

  Enter the username that OVBPI can use to log into the database to access its tables. A default name is offered for the username, which you can accept.

— Password

  Enter a password for the user entered in the previous step.

— Confirm password

  Reenter the password for the user as confirmation.

  Make sure that you remember these user name and password details as you will need them in the future.

— Database file directory

  Enter the location of the database directory files. The installer offers a directory name based on the location following a default Oracle Server installation. Check the directory details are correct and either accept the directory offered, or enter new directory details.

When you have entered all the required information, click `Next`.

If you are presented with and error dialog labeled `Database Tables Exist`, the installer has detected database tables already defined in the database with the same names as the tables it needs to create for OVBPI. This message is also displayed in the case for other database functions, such as Views, Stored Procedure, Triggers and so on.

These database functions might be left from a previous installation, where you have uninstalled OVBPI and selected not to remove the OVBPI data; they could be tables from another application that have the same name as the default OVBPI tables; or they could be user-defined.

If you click `Remove Existing Database Contents`, the installer continues with the installation and deletes and recreates the tables that OVBPI requires. Alternatively, you can:

— Enter an alternative database name.

  Click `New Database User` to dismiss the error dialog. The installer returns you to the `Oracle user details` dialog where you can enter a different name for the database.

— Cancel the installation, remove or rename the OVBPI tables that already exist and then restart the installation.

Choose the option that you want to continue with and either restart the installation, or continue at section Pre-Installation Summary on page 101 as appropriate.

Pre-Installation Summary

From the `Pre-Installation Summary` dialog, check the details on the summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the OVBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Starting OVBPI Server Components on Windows

You can start the OVBPI components in one of two ways:

- Using the OVBPI Administration console:
  a. Start the OVBPI components using the OVBPI Administration Console by selecting:

     `Start|Programs|HP OpenView|Business Process Insight|OVBPI Admin`

  b. Click the `Start All` button to start all the OVBPI server components.
- From the Services option from the Control Panel:
  a. Select:

     `Start|Control Panel|Administrative Tools|Services`

     The OVBPI Server components are listed as the following Windows services:

     – OVBPIAdminServer
     – OVBPIEngine
     – OVBPIEventHandler
     – OVBPIMetricEngine
     – OVBPIModelRepository
     – OVBPINotificationServer
     – OVBPIServiceAdapters
     – OVBPIServletEngine
     – OVBPIWebServicesProvider

  b. Start all the OVBPI Services in the usual way.

     You can also configure further properties for these OVBPI Services, which are specific for your implementation. As an example, you can configure the Windows Service to restart automatically following a failure. As installed, the Services do not restart following a failure.

If you are using an Oracle Server it can take a minute or so for OVBPI components to make a connection (on some systems). There is a retry mechanism for connecting to an Oracle Server when OVBPI is starting, but

this retry interval eventually times out. In this case, you might need to have a second attempt at starting some of the OVBPI components that use the database.

When you have successfully completed the installation and started the OVBPI components, you need to check you license status and enter your permanent license key password as described in section License Key Password Redemption on page 104.

License Key Password Redemption

When initially installed, OVBPI is running under a 60-day `Instant On` license. You need to obtain your permanent password before the 60-day period has expired. To obtain your permanent password, you need to access the Autopass License Management utility, which is available through the OVBPI Administration Console.

OVBPI uses a Nodelocked license based on the fully qualified hostname of the machine where the OVBPI Server is installed. Do not request your permanent password using the IP address of the machine where OVBPI is installed; if you do, OVBPI is not able to start.

When you purchased OVBPI you received one, or more, entitlement certificates. An entitlement certificate is issued for each licensed product that you purchase, for example:

- HP OpenView BPI - 1 Business Process LTU
- HP OpenView SD BPI - Helpdesk Mgmnt LTU

Use the information on your entitlement certificates and the Autopass License Management utility to retrieve and install the software license keys for OVBPI. The following are the instructions for accessing the Autopass License Management utility for OVBPI:

1. Open the OVBPI Administration Console
2. Select the following menu option:

   `Admin | License Manager`

   The Autopass License Management `Retrieve/Install License Key` pane is displayed.

3. Follow the License Management instructions for retrieving and installing your license key. You need to make sure that you have the information from your entitlement certificates when answering the licensing questions.

   For detailed information about using Autopass, refer to the License Management online help.

   If you have any difficulty with Autopass, use the contact details on your License Entitlement Certificate. You can also access the HP Password delivery service at the following URL:

   http://www.webware.hp.com

When you have installed your permanent license, continue and verify your OVBPI installation as described in Chapter 4, Verifying the Installation. You can complete the verification using the 60-day `Instant On` license if you prefer and install the permanent license at a later date.

If you do not want to verify your installation, you have completed the installation.

Server Only Installation on Windows

Complete the following steps to install the OVBPI Server without the OVBPI Modeler component on a Windows machine. You might do this because you want to use the OVBPI Modeler from another machine.

Before starting the installation, make sure that you have read section Information Required for a Server Only Installation on page 83 and that the system environment variable for `JAVA_HOME` is set.

Introduction

This section of the installation introduces the installation process for OVBPI.

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with the introduction for the installation. Click `Next` to start the installation.

   Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

   If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section J2SE on page 52. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

   When you have corrected the problem, restart the installation.

General OVBPI Settings

Answer the following questions relating to installation directory, installation type and J2SE location:

1. From the `Choose Install Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented. Click `Next` to continue.

   You can install only one OVBPI Server on each machine. You must not install and configure multiple OVBPI Servers on a single machine.

   If the installer detects one or more OpenView products that use the OpenView License Manager (Autopass) are installed (including a previous version of OVBPI), it displays a Warning message. Select `Next` to confirm that you have shutdown all other OpenView products, or select `Cancel` to abort the installation.

2. From the `Choose Product Features` dialog, select `Server Only` as the installation option and click `Next`.

   Continue at step 3 in section General OVBPI Settings on page 95 to complete the `Server Only` installation.

When you have completed the `Server Only` installation and started OVBPI, continue at section License Key Password Redemption on page 104.

Modeler Only Installation

Complete the following steps to install the OVBPI Modeler component on a Windows machine. You might do this because you want to use the OVBPI Modeler from a different machine.

The OVBPI Modeler needs to connect to the Model Repository, which is part of the OVBPI Server. You should therefore make sure that the OVBPI Server is installed and started, before starting the OVBPI Modeler following its installation.

Before starting the installation, make sure that you have read section Information Required for a Modeler Only Installation on page 84 and that the system environment variable for `JAVA_HOME` is set.

Introduction

Complete the following steps to install the OVBPI Modeler for the first time.

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an introduction to the installation. Click `Next` to start the installation.

   Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

   If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section J2SE on page 52. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

   When you have corrected the problem, restart the installation.

General OVBPI Settings

Answer the following questions relating to installation type, installation directory and J2SE locations.

1. From the `Choose Installation Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented.
2. From the `Choose Product Features` dialog, select `Modeler Only` as the installation option and click `Next`.
3. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
4. From the `Pre-Installation Summary` dialog, check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI Modeler directories and files. When the installation is complete, you can exit the installation procedure.

You have now completed the `Modeler Only` installation.

Starting the OVBPI Modeler

Start the OVBPI Modeler as follows:

1. Make sure that the Model Repository component is started on the OVBPI Server using the OVBPI Administration Console.
2. Select the following option from the Start menu:

   `Start|Programs|HP OpenView|Business Process Insight|Modeler`

   You are presented with an `OVBPI Modeler` dialog, where you enter details of the location of the Model Repository.

3. Enter details of the username and password to connect to the Model Repository. On a new installation, the username is `admin` and the password is `ovbpi`.

   Details of changing the user name and password for the OVBPI Modeler are provided in the *OpenView Business Process Insight System Administration Guide*.

4. Click `OK`, and the OVBPI Modeler opens.

Dashboards Only Installation

Complete the following steps to install the OVBPI Dashboard component on a Windows machine.

Before starting the installation, make sure that you have read section Information Required for a Dashboards Only Installation on page 84 and that the system environment variable for `JAVA_HOME` is set.

Introduction

Complete the following steps to install the OVBPI Dashboard for the first time.

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an introduction to the installation. Click `Next` to start the installation.

   Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

   If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to make sure that the system environment is set up as described in section J2SE on page 52. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

   When you have corrected the problem, restart the installation.

General OVBPI Settings

Answer the following questions relating to installation type, installation directory and J2SE locations.

1. From the `Choose Installation Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented.
2. From the `Choose Product Features` dialog, select `Dashboards Only` as the installation option and click `Next`.
3. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
4. From the `OVBPI Database Type` dialog, select either Microsoft SQL Server or Oracle as the database you have configured for OVBPI. If you have not yet installed the OVBPI and configured the database, you can still complete a `Dashboards Only` installation and complete the required details.

   The installation procedure does not attempt to verify the data that you enter, and it can be modified following the installation. However, you need to make sure that you select the correct database type, so the correct parameters are available to edit through the Administration Console after the installation.
5. From the Database `Connection Details` dialog, complete the details of the database requested. The details requested vary according to the database type that you select.
6. From the `Pre-Installation Summary` dialog, check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI Dashboard directories and files. When the installation is complete, you can exit the installation procedure.

You have now completed the `Dashboards Only` installation.

Starting the OVBPI Dashboard

Before starting the Business Process Dashboard, you need to make sure that the Servlet Engine is running. You can start the Servlet Engine using one of the following methods:

1. Using the OVBPI Administration Console by selecting:

   `Start|Programs|HP OpenView|Business Process Insight|OVBPI Admin`

   Click the `Start All` button to start all the OVBPI components installed.

2. From the Services option from the Control Panel:

   a. Open the Windows Services dialog as follows:

      `Start|Control Panel|Administrative Tools|Services`

      You need to start the OVBPI Servlet Engine, which is listed as the following Windows service:

      `OVBPIServletEngine`

   b. Start the `OVBPIServletEngine` service in the usual way.

You can now start the Dashboard by typing the following URL into a Web Browser windows:

`http://`*`hostname`*`:44080/ovbpidashboard2.10`

where:

- *`hostname`* is the fully qualified domain name of the machine where the OVBPI Dashboard is installed and running. You can use `localhost` as the hostname, if you are starting the Business Process Dashboard on the same machine as where the Dashboard components are installed and running.
- `44080` is the port number for the Servlet Engine, identified by the `ServletEngine HTTP` port number. Use the port number configured for the machine where the Dashboard is installed.

A browser window opens on the `Business Health Scorecard` page for the OVBPI Dashboard.

Managing a Dashboards Only Installation

When you have completed a `Dashboards Only` installation, you can manage your system using the Administration Console in the same way as you can for any other OVBPI installation type.

The Administration Console presents a subset of the configuration options for the `Dashboards Only` installation; that is, it presents only those options relevant to the Dashboards.

OVBPI OVO Adapter Installation

If you do not intend to use OpenView Operations as a source of operation events, you do not need to install the OVBPI OVO Adapter.

If you do need to install the OVO Adapter, make sure that you have read section Information Required for an OVO Adapter Installation on page 87 and that the system environment variable is set for `JAVA_HOME`.

If you are installing the Adapter on an HP-UX system, complete the steps described in section HP-UX on page 115. If you are installing the Adapter on a Windows system, complete the steps described in section Windows on page 116.

HP-UX

Complete the following steps to install the OVBPI OVO Adapter on HP-UX:

1. Log on to an account with system administration (root) capability.
2. Change directory to where the OVBPI install image is located and run the installation as follows:

   ```
   sh ./hp-ux/ovbpi-ovo-adaptor-install.bin
   ```

   When the installation image has been extracted, the installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

   If you see an error message indicating that you have not installed the correct version of the J2SE, you need to exit from the installation. You then need to make sure that the correct version of Java is defined in the system `PATH` environment variable and restart from step 2, or run the installer from the command line as follows:

   a. Change directory to where the installation image is located.

   b. Type the following command:

      `sh ./hp-ux/ovbpi-ovo-adaptor-install.bin LAX_VM` *Java 1.5 Home Directory*`/bin/java`

      where *`Java 1.5 Home Directory`* is the home directory for the J2SE.

      This forces the installer to use the correct J2SE. You can now continue with the installation.

3. The installation introduction screen is presented, click `Next` to continue.
4. Accept the default OVBPI installation directory offered, or enter a directory of your choice and click `Next`.
5. Select `OVO Adapter` and click `Next`.
6. Accept the default home directory for the Java SDK, if it is correct, and click `Next`. If the default directory offered is incorrect, enter the correct directory and click `Next`.
7. Confirm the installation details on the summary page and complete the installation.
8. Click `Install` to start the installation.
9. Click `Done` when the installation is complete.

The adapter server is now running and ready to accept connections when you start up the OVBPI components on Windows, you can continue at section Starting the OVBPI OVO Adapter On Windows on page 117.

Windows

Before starting the installation, make sure that the Windows .NET Framework is installed on the machine where you intend to install the adapter on Windows.

Complete the following steps to install the OVBPI OVO Adapter on Windows:

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an introduction to the installation. Click `Next` to start the installation.

   Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

   If you see an error message indicating that you have not installed the correct version of the J2SE, you need to stop the installation and make sure that the correct version of the J2SE is installed. You also need to

make sure that the system environment is set up as described in section J2SE on page 52. If this does not resolve the problem, you need to remove all older versions of the J2SE from your system.

When you have corrected the problem, restart the installation.

2. From the `Choose Install Folder` dialog, click `Next` to accept the default installation directory, or select `Choose`, to navigate to a directory of your choice. There might be a short delay before a navigation window is presented. Click `Next` to continue.
3. From the `Choose Product Features` dialog, select `OVO Adapter` and click `Next`.
4. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.
5. From the `Pre-Installation Summary` dialog, check the details on the summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Starting the OVBPI OVO Adapter On Windows

If you are running the OVO Adapter on the same machine as the OVBPI Server, you need to add the adapter to your OVBPI configuration before you can start it:

1. Open the OVBPI Administration Console as follows:

   `Start|Programs|HP OpenView|Business Process Insight|OVBPI Admin`
2. Select the `OVO Adapter` option from the list in the left-hand pane.
3. Select the checkbox `Add OVO Adapter to the Status Page?`

   This has the effect of adding an entry for the OVO Adapter to the OVBPI component Status Page.

4. Click the Apply button to apply your changes.
5. Close and restart the System Administration console.

   You need to close and restart the Administration Console, to refresh the Status pane. If you do not, the OVO Adapter does not appear.

You can now continue and start the adapter in one of two ways:

1. Using the OVBPI Administration console:
   a. If not already started, start the OVBPI components using the OVBPI Administration Console by selecting:

      `Start|Programs|HP OpenView|Business Process Insight|OVBPI Admin`

   b. Click the `Start All` button to start all the OVBPI components installed.
2. From the Services option from the Control Panel:
   a. Open the Windows Services dialog as follows:

      `Start|Control Panel|Administrative Tools|Services`

      The OVBPI OVO Adapter is listed as the following Windows service:

      `OVBPIOVOAdaptor`

   b. Start the `OVBPIOVOAdaptor` service in the usual way.

      You can also configure further properties for the `OVBPIOVOAdaptor` Service, which are specific for your implementation. As an example, you can configure the Windows Service to restart automatically following a failure. As installed, the Service does not restart following a failure.

You also need to configure the adapter as an operational service source for OVBPI. You do this using the Administration Console as described in the *OpenView Business Process Insight Administration Guide*. You are advised to configure the adapter as an operational service as soon as you can as the adapter reports errors in its log file until it is able to communicate with OVO.

Starting the OVBPI OVO Adapter on HP-UX

If you have installed the OVBPI OVO Adapter on an HP-UX machine, you can start the adapter as follows:

1. Using the OVBPI Administration Console:

   a. Add the following OVBPI directory to your system path:

      OVBPI-install-dir`/bin`

      By default *`OVBPI-install-dir`* is `/opt/OV/OVBPI`

   b. Start the OVBPI Administration Console as follows:

      ```
      biaadmin.sh
      ```

      The OVBPI Administration Console is presented.

   c. Click the `Start All` button to start all the OVBPI components installed.

2. Automatically as part of the HP-UX server startup process.

   OVBPI creates the following scripts as part of the OVBPI OVO Adapter installation:

   — `/sbin/init.d/ovbpi`

      This script is used to start and stop all OVBPI components that are installed. These are the OVBPI Administration Console and the OVBPI OVO Adapter.

   — `/sbin/rc2.d/K009ovbpi`

      This is a symbolic link to `/sbin/init.d/ovbpi`

   — `/sbin/rc3.d/S998ovbpi`

      This is a symbolic link to `/sbin/init.d/ovbpi`

   — `/etc/rc.config.d/ovbpi`

      This is a configuration file used during startup and shutdown. As installed the OVBPI components are configured to start automatically when the HP-UX system is started. If you want to change this behavior, you need to modify the parameter settings in this configuration file.

If you want to restart the adapter automatically when it fails, you can modify the following control file:

```
lbin/bia/OVBPIOVOAdaptorControl.sh
```

Locate the following line in the file:

```
RESTART_ON_FAILURE=false
```

To modify the configuration to have the adapter restarted automatically, following a failure, change the line as follows:

```
RESTART_ON_FAILURE=true
```

You can also configure the time between attempts to start the adapter using the following parameter in the same file:

```
RETRY_PERIOD=60
```

The retry period units are specified in terms of seconds.

Be aware that when you reinstall OVBPI the control file is overwritten. You are advised to make a copy of your changes and you must reapply the changes to the file the reinstallation.

You also need to configure the adapter as an operational service source for OVBPI. You do this using the Administration Console as described in the *OpenView Business Process Insight Administration Guide*. You are advised to configure the adapter as an operational service as soon as you can as the adapter reports errors in its log file until it is able to communicate with OVO.

OVBPI Custom Probes for Internet Services Installation

This section describes how to install the OVBPI Custom Probes for Internet Services; install these probes if you want to use OVIS to report on OVBPI-specific metrics. Before starting the installation, make sure that you have read section Information Required for an OVIS Custom Probes Installation on page 89.

The probes installed for OVBPI and the flow metrics that they measure are described in the *OpenView Business Process Insight Reference Guide*.

You must install the OVBPI Custom Probes on the machine where OpenView Internet Services Configuration Manager is installed.

Complete the following steps to install the probes:

1. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive\i386\ovbpi-ovis-probes-install.exe

   You are presented with an introduction to the installation. Click `Next` to start the installation.

   Alternatively, you can follow the link from the `readme` file presented when you insert the CD into the CD drive.

   You are presented with an installation GUI that leads you through the steps to install you OVBPI custom probes. Click `Next` to start the installation.

2. From the `Choose Install Folder` dialog, accept the default installation directory, or select `Choose`, to navigate to a directory of your choice and click `Next`.

3. From the `OVBPI Database Type` dialog, select the database type that you configured for OVBPI to use to store flow data, click `Next`.

   If you selected Microsoft SQL Server, continue at step 6, otherwise, continue at step 4 for Oracle.

4. From the `Oracle ODBC Driver Name` dialog, enter the name for the ODBC driver that you want OVBPI to use when making a connection to the OVIS Oracle database.

5. From the `Net Service Name` dialog, enter the name that you configured for the Oracle Net Service and click `Next`.

   Continue at step 8.

6. From the `OVBPI Database Hostname` dialog, enter the hostname for the machine where the database used by OVBPI is installed and running.

7. From the OVBPI MSSQL Database Schema Name dialog, enter the name of the OVBPI schema as defined within SQL Server, for example OvbpiSchema.

8. From the `Pre-Installation Summary` dialog, check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI custom probes directories and files. When the installation is complete, you can exit the installation procedure.

The OVBPI Custom Probes are now installed and you can use OVIS to configure these probes in the same way as other OVIS probes. When configuring the `Probe Location Info`, make sure that you select Local System as the value for the `Probe Location` parameter.

You also need to configure the OVIS integration as an operational service source for OVBPI. You do this using the Administration Console as described in the *OpenView Business Process Insight Administration Guide*.

Details of the information required by these probes is given in the *OpenView Business Process Insight Reference Guide*.

OVBPI SOA Manager Adapter Installation and Configuration

This section describes how to install, configure and start the OVBPI SOA Manager Adapter. Before starting the installation, make sure that you have read section Information Required for a SOA Manager Adapter Installation on page 87.

Complete the following steps to install the adapter:

1. Locate the zip archive file on the OVBPI distribution media:
   - *cd-root*\i386\soam-adaptor.zip
2. Copy the zip archive file to the machine where you want to install the SOA Manager adapter.
3. Create a new directory for the SOA Manager Adapter zip archive file.
4. Unpack the zip archive file into the directory that you have created in step 3.
5. Set the path for the Java Home directory for the adapter in the environment variable SOAMADAPTER_JAVA_HOME. Open a Command Window and enter:

   ```
   set SOAMADAPTER_JAVA_HOME=java-install-dir
   ```

   where *java-install-dir* is the location of your Java installation, for example:

   ```
   c:\program files\java\jdk1.5.0_08
   ```
6. From a Windows Command Window, locate the following script to configure and start the adapter:

   ```
   runAdapter.bat
   ```

7. From the directory where the script is located, run the following script in a new Command Window to configure and start the adapter as follows:

   `start runAdapter -c` *soa-svs-catalog* `-h` *hostname* `-s` *wsvs-port* `-a` *adport*

   where:

   — `-c` *soa-svs-catalog* (required parameter)

   `-c` takes a parameter *soa-svs-catalog*, which is the name of the SOA Manager Web Services Catalog. This is the catalog name that you identified starting with the string `WsmfServiceCatalog`.

   — `-h` *hostname* (optional parameter)

   `-h` takes a parameter, which is the fully qualified host name of the machine where SOA Manager is running. This parameter is optional and if it is not specified, a value of `localhost` is assumed.

   — `-s` *wsvs-port* (optional parameter)

   `-s` takes a parameter, which is the port number used by SOA Manager to publish its web services. This parameter is optional and if it is not specified a value of `5002` is used.

   — `-a` *adport* (optional parameter)

   `-a` takes a parameter, which is the port number used by Axis to publish the SOA Manager Adapter as a Web Service. This parameter is optional and if it is not specified, a value of `18097` is used.

An instance of the SOA Manager Adapter is now installed, configured and started. Do not close the Command Window where you started the adapter, or you shut down this adapter instance.

You also need to configure the adapter as an operational service source for OVBPI. You do this using the Administration Console as described in the *OpenView Business Process Insight Administration Guide*.

You can check that the adapter is configured and running at any time using the following URL:

http://*hostname*:18097/axis/services/SOAMAdapter?wsdl

where ***hostname*** is the name of the machine where the adapter is installed.

If the browser returns an error page, then the adapter is not running.

Stopping the SOA Manager Adapter

You stop the adapter using `CTRL/C` in the Command Window where you started the adapter.

SOA Manager Adapter Log Files

The SOA Manager Adapter logs errors and warnings in the following log file:

adapter-install-dir`/data/log`

What to do Next

If you are using an Oracle Server for your OVBPI implementation, you are advised to read the section in the *OpenView Business Process Insight Problem Solving Guide* related to Oracle Server performance. The section provides information relating to optimizing Oracle for use with OVBPI.

When you have successfully completed the OVBPI installation, continue at Chapter 4, Verifying the Installation to verify your OVBPI Server installation.

Details of managing your system, including starting and stopping components and their configurations can be found in the *OpenView Business Process Insight System Administration Guide*.

4 Verifying the Installation

This chapter uses an example flow to check that all the OVBPI files are installed correctly, and that your OVBPI machine is operating as it should be. This chapter does not provide any information about verifying that the OVBPI Custom Probe installation is correct.

It is not possible to try all permutations for a business flow; however, this chapter uses one of the contributed flows and the Flow Simulator, which is also a contributed tool, to create a business flow and simulate its progress through the Business Impact Engine.

The chapter describes how you deploy the flow, plus the Data and Event definitions for the flow. You then go on and use the Flow Simulator to send simulated events into the Business Impact Engine and view the results through the OVBPI Business Process Dashboard. This then confirms that the Business Impact Engine is processing events and is therefore successfully installed.

The verification does not check all the aspects of creating and deploying a flow. The *OpenView Business Process Insight Integration Training Guide - Modeling Flows* provides a more detailed example of creating a flow including Data and Events.

Before using the verification flow, make sure that you have installed, and started, the required OVBPI components. These are:

- OVBPI Server on Windows
- OVBPI Modeler on Windows

Importing an Example Flow

This section describes how to import one of the example flows into the OVBPI Modeler.

Before you start, make sure that the OVBPI Server components are started and the OVBPI Modeler is started; see section Starting OVBPI Server Components on Windows on page 102 and section Starting the OVBPI Modeler on page 109.

Complete the following steps to import and deploy the Cell phone Provisioning flow:

1. Locate the OVBPI distribution media.

   The demonstration, or example, flows are located under the following directory:

   CD-drive\contrib\DemoFlowLibrary

2. Copy the entire contents of contrib\DemoFlowLibrary directory to a directory with the same name under your OVBPI installation directory as follows:

   ovbpi-install-dir\contrib\DemoFlowLibrary

   The next step is to import the Cell phone Provisioning flow (MB_Mobile.zip)

3. From the OVBPI Modeler select:

   File|Import Definitions

   You are presented with an Import Definitions dialog.

4. Use the Browse button to locate the example flow, which is contained in a .zip file and located under the MB_Mobile directory as follows:

   ovbpi-install-dir\contrib\DemoFlowLibrary\MB_Mobile\MB_Mobile.zip

   Make sure that you select the file with the .zip extension from this directory and click Open to load the file into the Modeler.

5. Click Next.

   All the definitions relating to the MB_Mobile flow are listed.

6. Click Import, to import the flow into the OVBPI Modeler.

7. When the import is complete, click `Close`.

   The `MB_Mobile` flow is now imported and can be viewed from within the Modeler.

8. Select the `MB_Mobile` flow under `Flows` in the OVBPI Modeler Navigator pane.

9. Deploy the `MB_Mobile` flow using the following menu option in the OVBPI Modeler:

   `File|Deploy`

   A dialog is presented that lists all the definitions that will be deployed.

10. Click `Deploy` to deploy the flow.

11. Click `Close` when the flow has been successfully deployed.

    You can see that the status of the flow has changed in the Summary window within the Modeler and the flow is now confirmed as deployed.

Using the Flow Simulator

The next step is to start the Flow Simulator and run the test case for the `MB_Mobile` flow. The simulator injects business events into the Business Impact Engine and as a result flow instances are created and progressed. This enables you to confirm that the OVBPI installation is successful.

If you have upgraded from OVBPI version 02.0*n* to OVBPI version 02.10, you need to make sure that you are using the correct version of the test script with the correct version of the flow. Do not mix a version 02.0*n* flow with a version 02.10 test script for the Flow Simulator.

To run the Flow Simulator, complete the following steps:

1. Locate the OVBPI distribution media.

   The Flow Simulator is located under the following directory:

   `CD-drive``\contrib\FlowSimulator`

2. Copy the entire contents of `contrib\FlowSimulator` directory to a directory with the same name under your OVBPI installation directory as follows:

   `ovbpi-install-dir``\contrib\FlowSimulator`

3. Open a Command Prompt window.

4. Change directory to where the Flow Simulator files are located.
5. Run `FlowSimulator.bat`.

   The Flow Simulator opens and there are two tabbed windows on the left-hand pane:

   — `Test Case Editor`

   — `Test Suite Runner`

   There is a list of test suites already defined for the `MB_Mobile` flow, which you now need to import into the simulator.
6. From the Flow Simulator, select `File|Open Test Suite`
7. Browse to the following directory:

   ovbpi-install-dir`\contrib\DemoFlowLibrary\MB_Mobile`

   The test suites are located with the contributed flows that they relate to.
8. Select the file `MB_Mobile.test`.
9. Click `Open`

   The `MB_Mobile` test suite is loaded into the Flow Simulator. There are four test cases listed within the Test Case Editor.
10. Move to the `Test Suite Runner` pane and click the `Start Suite` button.

    The simulator is now injecting events for the `MB_Mobile` flow. You can see these events on the Status Bar at the bottom of the Flow Simulator Window.

Viewing the Flow Using the OVBPI Dashboard

To check how the `MB_Mobile` flow is progressing, start the OVBPI Dashboard and view the flow summary for the flow as follows:

1. From the machine where the OVBPI Server is installed, start the OVBPI Dashboard using the following URL:

   `http://localhost:44080/ovbpidashboard2-10`

2. From the Business Health Scorecard page, select the `MB_Mobile` flow from `Business Flow Summary`.

   Scroll to the bottom of the page and you can see a summary of the flow instances and the numbers of flow instances in each state. If there are values other than zero against one or more of the instances, the flow is progressing and the installation is therefore successful. You can continue and navigate around the Dashboard to view the details of the flow instances. When you have completed the verification, continue at section What to do Next on page 132.

   If the values are zero, then the `MB_Mobile` flow is not progressing as it should, and there is a potential problem with the installation. Initially, you can try refreshing the Dashboard Web Browser Window to make sure you are viewing the latest information. If the values are still zero, check that you have completed all the instruction in this chapter. If you have, then contact your support representative for assistance; see section Support on page 4.

What to do Next

You have now completed the OVBPI verification and the OVBPI installation.

You need to shut down the test suite in the Flow Simulator and close the remaining OVBPI components as follows:

1. To stop the test suite for the `MB_Mobile` flow, click the `Stop Suite` button.
2. Close the Flow Simulator.
3. Close the browser Window where the OVBPI Dashboard is running.
4. From the OVBPI Modeler, undeploy the `MB_Mobile` flow, including all the associated Data and Event definitions. You can also delete the definitions related to the `MB_Mobile` flow if you want to.
5. When you are more familiar with OVBPI, you can use the Intervention Client to remove the data for all the active instances for the `MB_Mobile` flow from the database.

When you have finished cleaning up your machine following the verification, you are advised to change the passwords for the OVBPI clients as described in the *OpenView Business Process Insight System Administration Guide*.

5 Re-installing OVBPI Components

You can use the OVBPI reinstallation procedure to re-install existing OVBPI components, to install new components and replace missing or corrupt OVBPI software files. As an example, you might have completed a Server Only installation and you now want to install the OVBPI Modeler on the same machine. You can use the Installation Integrity Checker to determine if there are missing installation files.

If you want to replace OVBPI data files, you should recover these files from a backup. You cannot use the reinstallation program to change details of the database configuration for OVBPI.

If you want to upgrade from an OVBPI version 02.0*n* machine to an OVBPI version 02.10 machine, do not read this chapter, you must refer to Chapter 7, Upgrading to OVBPI Version 02.10.

This chapter covers the following topics:

Options for Re-installing

This section describes the options available to you when re-installing OVBPI components.

If you want to create a new database for OVBPI and remove all the data associated with the current installation, use the uninstall instructions. This involves removing all the installed OVBPI components and deleting the database; see Chapter 6, Uninstalling OVBPI Components. Be aware that by uninstalling OVBPI you are removing all your OVBPI files, including the repository Business Flow definitions.

To reinstall existing components, refer the section for the installation type that you have installed as follows:

- Server and Modeler Installation; see section Server and Modeler Re-installation on page 138.
- Modeler Only Installation; see section Modeler Only Re-installation on page 141.
- Dashboards Only Installation; see section Dashboards Only Re-installation on page 142.
- Server Only Installation; see section Server Only Re-installation on page 143.
- OVO Adapter Installation; see section OVBPI OVO Adapter Re-installation on page 145.
- OVBPI Custom Probe Installation; see section OVBPI Custom Probe Re-Installation on page 148.

You have the option to re-install a different installation type, provided the new install type includes the components that have already been installed; see Table 29 on page 135.

Table 29 Re-Installation Options

Existing Installation Type	Possible New Re-Installation Types
Server and Modeler	Server and Modeler
Server Only	Server Only Server and Modeler
Dashboards Only	Dashboards Only Server Only Server and Modeler
Modeler Only	Modeler Only Server and Modeler
OVO Adapter on HP-UX	OVO Adapter on HP-UX
OVO Adapter onWindows	OVO Adapter on Windows Server Only Server and Modeler
OVBPI Custom Probes	OVBPI Custom Probes

Before Starting the Re-installation Procedure

Before starting the re-installation process make sure that you have taken a full backup of your machine, and make sure that it includes copies of any configuration files that you have modified for your current installation.

The reinstallation procedure either makes copies of configuration files, or preserves relevant configuration changes as follows:

- changes made to configuration parameters through the Administration Console are preserved and are used to present the OVBPI configuration parameter values during the reinstallation.
- the OVBPI Dashboard configuration files. The OVBPI Dashboard can be tailored for specific business requirements by modifying the JSP files. As a result the installation process makes a copy of the console directories to preserve these changes. Files at the following location are copied:

  OVBPI-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\ovbpidashboard2-10

  These files are copied to the following location:

  OVBPI-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\ovbpidashboard2-10.bak.*n*

  where *n* starts at zero (0) and is incremented by one (1) for each reinstallation until it reaches a value of 19, at which point the numbering restarts at zero (0). After the numbering restarts at zero, the installer continues to use zero and does not increment *n*.
- changes made to the following script in the `examples` directory are preserved, by renaming the file.

  OVBPI-install-dir\examples\bia\ServiceDeskAdaptors\SD_Adaptor_Config.properties

  The file is renamed to `SD_Adaptor_Config.properties.bak.`*n*, where *n* starts at zero (0) and is incremented by one (1) for each reinstallation until it reaches a value of 19, at which point the numbering restarts at zero (0). After the numbering restarts at zero, the installer continues to use zero and does not increment *n*.

  Following the reinstallation, you must reapply any changes that you made to the file: `SD_Adaptor_Config.properties`.

For any other changed configuration files, you need make sure the files are copied and any changes are reapplied after the reinstallation is complete. Examples of files that you might have changed are the SQL script for archiving Active and Deleted instances, or the Tomcat configuration file (`server.xml`).

The instructions for re-installing are described in the following sections.

Server and Modeler Re-installation

This section covers the tasks that you need to complete to re-install `Server and Modeler` components.

Stop OVBPI Components and Backup the Machine

Complete the following steps before running the installation script to re-install the `Server and Modeler` components:

1. Make sure that all the OVBPI components on the Windows machine are shut down, for example:
   - Close the OVBPI Modeler.
   - Close the OVBPI Metric definer.
   - Close the browser where you are running the OVBPI Business Process Dashboard.
   - Close the browser for the Notification Server Web Administration.
   - Close the browser for the Intervention Client.
   - Use the OVBPI Administration Console to shutdown all the OVBPI Server components.
   - Close the browser for the Repository Explorer.
   - Close the OVBPI Administration Console.

   Alternatively, you can shut down the OVBPI components by stopping their Windows Services. Stopping the `OVBPIAdminServer` service stops all the OVBPI services running on the machine.

   If the installer detects any of the OVBPI components still running, the installation is aborted until the components are stopped.
2. Make sure that you have shut down all applications that use Autopass License Management on the machine where you intend to reinstall OVBPI. If you do not, you might not be able to use these applications or OVBPI following the OVBPI installation.

3. Complete a full backup the OVBPI installation directory and all the OVBPI database files.

   You can now continue and start the installation.

4. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

   cd-drive\i386\ovbpi-install.exe

   You are presented with an installation GUI that leads you through the steps to install you OVBPI components. Click `Next` to start the installation.

Continue the installation at section General OVBPI Settings on page 139

General OVBPI Settings

Answer the following questions relating to installation directory, installation type and J2SE location:

1. From the `Choose Install Folder` dialog, check that the installation directory is correct and click `Next`.

   You must not choose a different folder for OVBPI, as only one copy of the OVBPI Server can be run on a single machine.

   You are presented with a message informing you that an OVBPI component is already installed. Click `Next` if you want to continue, or click `Cancel` to finish the installation immediately without re-installing.

2. From the `Choose Product Features` dialog, select `Server and Modeler` and click `Next`.

   If the installer detects one or more OpenView products that use the OpenView License Manager (Autopass) are installed (including a previous version of OVBPI), it displays a Warning message. Select `Next` to confirm that you have shutdown all other OpenView products, or select `Cancel` to abort the installation.

3. From the `JDK Home` dialog, accept the home directory where the Java SDK is installed. Click `Next` to continue.

4. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

5. If you have made any changes to configuration files, these changes need to be reapplied to the newly installed files.

   You can now continue and restart the OVBPI components that you stopped using the OVBPI Administration Console.

Modeler Only Re-installation

Complete the following steps to re-install the OVBPI Modeler component on a Windows machine:

1. If the Modeler is installed on the same machine as the Model Repository, make sure that the Model Repository is stopped, on the OVBPI server machine, before re-installing the Modeler.
2. Shut down the OVBPI Modeler.
3. Close the OVBPI Administration Console.
4. From an account with Administrator privileges, run the installation procedure from the distribution media, for example:

   cd-drive\i386\ovbpi-install.exe

   You are presented with an installation GUI that leads you through the steps to install you OVBPI components.
5. Click `Next` to start the installation.
6. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI Modeler is already installed.

   You are presented with a message informing you that an OVBPI component is already installed. Click `Next` if you want to continue, or click `Cancel` to finish the installation immediately without re-installing.
7. From the `Choose Product Features` dialog, select `Modeler Only` and click `Next`.
8. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory and click `Next` to continue.
9. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI Modeler directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Dashboards Only Re-installation

Complete the following steps to re-install the OVBPI Dashboard component on a Windows machine:

1. Close the browser Window where the Dashboard is running.
2. Stop the Servlet Engine component from the Administration Console `Status` page.
3. Close the OVBPI Administration Console.
4. From an account with Administrator privileges, run the installation procedure from the distribution media, for example:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an installation GUI that leads you through the steps to install you OVBPI components.
5. Click `Next` to start the installation.
6. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI Dashboard is already installed.

   You are presented with a message informing you that an OVBPI component is already installed. Click `Next` if you want to continue, or click `Cancel` to finish the installation immediately without re-installing.
7. From the `Choose Product Features` dialog, select `Dashboards Only` and click `Next`.
8. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory and click `Next` to continue.
9. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI Dashboard directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Server Only Re-installation

Complete the following steps to re-install the OVBPI `Server Only` component on a Windows machine:

1. Make sure that all the OVBPI server components are shut down, for example:
   - Close the OVBPI Modeler.
   - Close the OVBPI Metric definer.
   - Close the browser where you are running the OVBPI Business Process Dashboard.
   - Close the browser for the Notification Server Web Administration.
   - Close the browser for the Intervention Client.
   - Use the OVBPI Administration Console to shutdown all the OVBPI Server components.
   - Close the browser for the Repository Explorer.
   - Close the OVBPI Administration Console.

   You can also stop the Windows Services for the OVBPI Server components to shut them down. If the installer detects any of the OVBPI components still running, the installation is aborted until the components are stopped.
2. Make sure that you have shut down all applications that use Autopass License Management on the machine where you intend to reinstall OVBPI. If you do not, you might not be able to use these applications or OVBPI following the OVBPI installation.
3. Complete a full backup the OVBPI installation directory and all the OVBPI database files.

   You can now continue and start the installation.
4. From an account with Administrator privileges, run the installation procedure from the distribution media, for example:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an installation GUI that leads you through the steps to install you OVBPI components. Click `Next` to start the installation.

5. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI server is already installed.

   You must not choose a different folder for OVBPI, as only one copy of the OVBPI Server can be run on a single machine.

   You are presented with a message informing you that OVBPI is already installed. Click `Next` if you want to continue, or click `Cancel` to finish the installation immediately without re-installing.

6. From the `Choose Product Features` dialog, select `Server Only` and click `Next`.

   If the installer detects one or more OpenView products that use the OpenView License Manager (Autopass) are installed (including a previous version of OVBPI), it displays a Warning message. Select `Next` to confirm that you have shutdown all other OpenView products, or select `Cancel` to abort the installation.

7. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory and click `Next` to continue.

8. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI Server directories and files. When the installation is complete, click `Done` to exit the installation procedure.

9. Reapply any changes that you made to the OVBPI configuration files that you saved before starting the reinstallation procedure.

10. Restart the OVBPI components that you stopped using the OVBPI Administration Console.

OVBPI OVO Adapter Re-installation

The steps for re-installing the OVO Adapter vary according to the platform that you are installing on.

For HP-UX, refer to section HP-UX on page 145.

For Windows. refer to section Windows on page 147.

HP-UX

Complete the following steps to re-install the OVBPI OVO Adapter on HP-UX:

1. Stop the OVBPI OVO Adapter using the OVBPI Administration Console.
2. Close the OVBPI Administration Console.
3. Log on with system administration (root) capability.
4. Change directory to where the OVBPI installation image is located.
5. Run the installation as follows:

   ```
   sh ./hp-ux/ovpbi-ovo-adaptor-install.bin
   ```

   When the installation image has been extracted, the installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

   The installer informs you that the OVBPI OVO Adapter is already installed and you are prompted to confirm that this is a re-installation.

If you see an error message indicating that you have not installed the correct version of the J2SE, you need to exit from the installation. You then need to make sure that the correct version of Java is defined in the system `PATH` environment variable and restart from step 2, or run the installer from the command line as follows:

a. Change directory to where the installation image is located.

b. Type the following command:

   `sh ./hp-ux/ovbpi-ovo-adaptor-install.bin LAX_VM` *Java 1.5 Home Directory*`/bin/java`

   where *`Java 1.5 Home Directory`* is the home directory for the J2SE.

   This forces the installer to use the correct J2SE. You can now continue with the installation.

6. Click `OK` and then `Next` to continue with the re-installation. If you want to exit from the installation click `Cancel`.

7. Click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory. Click `Next` to continue.

8. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and re-installs the OVBPI OVO Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Windows

If you want to reinstall the OVO Adapter on a machine where the OVBPI Server is installed, you need to reinstall the OVBPI Server. If you want to re-install the OVO Adapter for Windows on a different machine to the OVBPI Server, complete the following steps:

1. Stop the OVBPI OVO Adapter using the OVBPI Administration Console.
2. Close the OVBPI Administration Console.
3. From an account with Administration privileges, run the installation procedure, which is located on the distribution media at the following location:

   cd-drive\i386\ovbpi-install.exe

   You are presented with an installation GUI that leads you through the steps to install you OVBPI components. Click `Next` to start the installation.
4. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVO Adapter is already installed.

   You must not choose a different folder for OVBPI, as only one copy of the OVBPI Server can be run on a single machine.

   You are presented with a message informing you that OVBPI is already installed. Click `Next` if you want to continue, or click `Cancel` to finish the installation immediately without re-installing.
5. From the `Choose Product Features` dialog, select `OVO Adaptor` and click `Next`.
6. From the `JDK Home` dialog, click `Next` to accept the home directory where the Java SDK is installed, or select `Choose` to navigate to the correct directory and click `Next` to continue.
7. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and re-installs the OVBPI OVO Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

OVBPI Custom Probe Re-Installation

Use the OVBPI Custom Probes installation to reinstall deleted or corrupt files, or to change the configuration of the Custom Probes. The configuration information that can be modified is related to the database details for the OVBPI data. If you change the database type or hostname, you will need to reconfigure the OVBPI Custom Probes in order that they can access the new database.

Complete the following steps to reinstall the OVBPI Custom Probes for OVIS:

1. If you have modified the `OvbpiProbe.cfg` file to configure multiple OVBPI Servers, make a copy of the file before starting the re-installation.
2. Run the installation procedure: `ovbpi-custom-probe-install.exe`

   You are presented with an installation GUI that leads you through the steps to install your OVBPI components. Click `Next` to start the installation.
3. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI Custom Probes are already installed.

   You are presented with a message informing you that the probes are already installed. Click `OK` to dismiss the message and continue with the installation at the `OVBPI Database Type` dialog as follows:

   a. Click Cancel to finish the installation without re-installing.

   b. Select the database type that you have configured for OVBPI and click `Next`.

   If you selected MS SQL Server, continue at step 6, otherwise, continue at step 4.
4. From the `Oracle ODBC Driver Name` dialog, accept the name for the ODBC driver that you want OVBPI to use when making a connection to the OVIS Oracle database.
5. From the `Oracle Net Service Name` dialog, accept the name for the `Net Service Name` that you configured for the Oracle Client connection and click `Next`.

   Continue at step 8.

6. From the `OVBPI Database Hostname` dialog, accept the hostname for the machine where the database used by OVBPI is installed and running.
7. From the OVBPI MSSQL Database Schema Name dialog, accept the name of the OVBPI schema as defined within SQL Server, for example OvbpiSchema.
8. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI Custom Probe directories and files. When the installation is complete, click `Done` to exit the installation procedure.
9. If you made a copy of the `OvbpiProbe.cfg` file in step 1, make sure that the newly installed `OvbpiProbe.cfg` file contains the changes before continuing.

The re-installation is now complete.

SOA Manager Adapter Re-Installation

As the SOA Manager adapter is installed from a zip archive, there are no special re-installation instructions. You can re-install the adapter at any time, by unpacking the zip archive into the same location and overwriting the files.

What to do Next

OVBPIWhen you have re-installed OVBPI for any reason, and reapplied your changes, you have completed the re-installation tasks and you can continue using your OVBPI machine.

6 Uninstalling OVBPI Components

This chapter describes how to remove the OVBPI components from your Windows and HP-UX machines.

The chapter covers the following topics:

- Removing OVBPI Server components from a Windows machine; see section Removing OVBPI Server Components from a Windows Machine on page 153.
- Removing the OVBPI OVO Adapter; see section Removing the OVBPI OVO Adapter on page 156.
- Removing the OVBPI Modeler from a Windows machine where it has been installed using the `Modeler Only` installation option; see section Removing the OVBPI Modeler on page 159.
- Removing the OVBPI Dashboard from a Windows machine where it has been installed using the `Dashboards Only` installation option; see section Removing the OVBPI Dashboard on page 160.
- Removing the OVBPI Custom Probes from the OVIS machine; see section Removing an OVBPI Custom Probes Installation on page 161.
- Removing the SOA Manager adapter from the SOA Manager machine; see section Removing a SOA Manager Adapter Installation on page 162.

You can choose to remove all the OVBPI database tables, or you can preserve them. You might want to preserve them if they contain data that you want to use for other applications.

If you select to remove all the database tables, the uninstall procedure deletes the table, but it does not delete:

- the tablespace (Oracle Server)
- Database (SQL Server)
- Database user, where the user is created as part of the installation process

If you want to keep your data for reporting purposes, ensure that `Delete Data` is not selected when you run the uninstall program. Keep the data and then move it to a suitable location when the uninstaller completes. When you have moved the data, you must delete the OVBPI database tables and database User using your database management tools. You also need to delete the OVBPI files under the installation directory when you have made a copy of the data that you need from them.

Removing OVBPI Server Components from a Windows Machine

You remove the OVBPI components from your machine using the `Add/Remove Programs` option from the `Control Panel`.

To remove the OVBPI components complete the following steps:

1. Make sure that all the OVBPI components on the Windows machine are shut down, for example:
   a. Close the OVBPI Modeler.
   b. Close the OVBPI Metric definer.
   c. Close the browser where you are running the OVBPI Business Process Dashboard, or the Web Business Console.
   d. Close the browser for the Notification Server Web Administration.
   e. Close the browser for the Intervention Client.
   f. Use the OVBPI Administration Console to shutdown all the OVBPI Server components.
   g. Close the OVBPI Administration Console.
2. Make sure that all the OVBPI Windows Services are stopped.
3. When all the OVBPI components are shut down and OVBPI Windows Services are stopped, you can continue and remove the OVBPI software as follows:

   Select `Start | Settings | Control Panel | Add/Remove Programs`
4. Select `HP OpenView Business Process Insight` from the currently installed programs.
5. Click `Change/Remove` to start the uninstall program.

   You are presented with an introduction screen labeled `Uninstall HP OpenView Business Process Insight`.
6. Click `Next` to continue.
7. You are asked to confirm that all the OVBPI components are shut down. Click `Next` to continue, when the OVBPI components are shut down.

8. You are presented with the `Delete Data` dialog where you are asked if you want to delete the contents of the OVBPI database. (This question is not presented if this is an OVO Adapter only uninstallation.)

   Select the option to `Delete OVBPI data`, if you want to delete all the data from the database; otherwise, select the option to `Keep OVBPI data`.

   If you choose to keep the OVBPI data, be aware that if you want to install another copy of OVBPI in the future, the new installation will not progress if it detects the existence of an existing OVBPI database. To reinstall in the future, you need to remove any existing OVBPI database tables, or copy them to another location in the database.

   Select the option that you want and click `Uninstall` to continue with the uninstallation procedure.

   If you have chosen to keep the OVBPI data, continue at step 10; otherwise continue at the next step.

9. If you have chosen to delete the OVBPI data, you are presented with the database user password dialog, where you are asked to enter the password for the specified OVBPI database user. Enter the password and click `Uninstall` to complete the uninstall procedure.

10. The Uninstaller continues and removes the OVBPI components.

    The uninstaller reports any files that it cannot delete as part of the uninstallation process and recommends that you restart your Windows machine to complete the installation.

    Click `Done` to complete the uninstallation procedure.

    If you have chosen to keep the OVBPI data, continue at step 13.

11. Restart your Windows machine.

    After the machine is restarted, you need to make sure that all the OVBPI files and directories have been removed.

12. Delete any remaining OVBPI files from the following directory, including the directory `OVBPI`:

    ```
    C:\Program Files\HP OpenView\OVBPI
    ```

13. Delete the following personal configuration files for the OVBPI Modeler and the OVBPI Administration Console:

    ```
    C:\Documents and Settings\profile\.hp_ovbpi\modeler.cfg
    C:\Documents and Settings\profile\.hp_ovbpi\adminconsole.cfg
    ```

    where *profile* is the name of the user account where the installation was executed. Delete the directory .hp_ovbpi where the files are located.

14. Delete any unwanted entries on the Start|Programs menu.

    If you are uninstalling, following an upgrade from OVBPI version 1.1, HP Business Process Insight and the Dashboard options are left on the Start|Programs menu. You need to delete these manually following the uninstallation.

You have now completed the tasks to remove the OVBPI components from your Windows machine.

If you have chosen to keep the OVBPI data, you can make a copy of the data that you want to keep and then delete the OVBPI files and directories, OVBPI database files and the OVBPI database User.

If you are using Oracle 10g, you can also purge the OVBPI Database User's Recycle Bin using the Oracle PURGE RECYCLEBIN command. This Oracle database command purges all the database tables, and their dependent objects, for the specified user, plus any other indexes owned by the user.

Removing the OVBPI OVO Adapter

How you remove the OVO Adapter depends on whether it is installed on HP-UX or Windows.

If it is installed on HP-UX, refer to section HP-UX on page 156.

If it is installed on Windows, refer to section Windows on page 157.

HP-UX

To remove the OVBPI OVO Adapter from your HP-UX machine, complete the following steps:

1. Stop the OVBPI OVO Adapter using the OVBPI Administration Console.
2. Close the OVBPI Administration Console.
3. Change to the directory where the OVBPI uninstall files are installed:

   `cd` *`OVBPI-install-dir`*`/UninstallerData/bia`
4. Type the following command:

   `sh ./Uninstall_ovbpi`

   The installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.
5. Click the `Next` button.

   You are asked to confirm that all the OVBPI components are shut down. Click `Uninstall` to continue. The Uninstaller continues and removes all the OVBPI OVO Adapter files and directories.
6. Click `Done` to complete the Uninstall procedure.
7. Check that the OVBPI files and directories have been removed. By default these files are located at:

   `/opt/OV/OVBPI`
8. Check that the startup and shutdown scripts installed for OVBPI are also deleted. The location of these files is described in section Starting the OVBPI OVO Adapter on HP-UX on page 119.

You have now completed the task of removing the OVBPI OVO adapter from your HP-UX machine.

Windows

If you are using the OVO Adapter on a machine where the OVBPI Server is installed, the Adapter is removed when the OVBPI Server is removed.

To remove the OVBPI OVO Adapter from other Windows machines, complete the following steps:

1. Stop the OVBPI OVO Adapter using the OVBPI Administration Console.
2. Close the OVBPI Administration Console.
3. When all the OVBPI components are shut down and OVBPI Windows Services are stopped, you can continue and remove the OVBPI software as follows:

   Select `Start | Settings | Control Panel | Add/Remove Programs`
4. Select `HP OpenView Business Process Insight` from the currently installed programs.
5. Click `Change/Remove` to start the uninstall program.

   You are presented with an introduction screen labeled `Uninstall HP OpenView Business Process Insight`.
6. Click `Next` to continue.
7. You are asked to confirm that all the OVBPI components are shut down. Click `Next` to continue, when the OVBPI components are shut down.
8. The Uninstaller continues and removes the OVBPI components.

   The uninstaller reports any files that it cannot delete as part of the uninstallation process and recommends that you restart your Windows machine to complete the installation.

   Click `Done` to complete the uninstallation procedure.

9. Restart your Windows machine.

   After the machine is restarted, you need to make sure that all the OVBPI files and directories have been removed.

10. Delete any remaining OVBPI files from the following directory, including the directory `OVBPI`:

    ```
    C:\Program Files\HP OpenView\OVBPI
    ```

You have now completed the tasks to remove the OVBPI components from your Windows machine.

Removing the OVBPI Modeler

To remove the OVBPI Modeler from a machine where it has been installed using the `Modeler Only` installation option, complete the following steps:

1. Make sure that the Modeler is shut down.
2. Select `Start | Settings | Control Panel | Add/Remove Programs`
3. Select `HP OpenView Business Process Insight` from the currently installed programs.
4. Click `Change/Remove` to start the uninstall program.

   You are presented with an introduction screen labeled `Uninstall HP OpenView Business Process Insight`.
5. Click `Next` to continue.
6. You are asked to confirm that all the OVBPI components are shut down. Click `Uninstall` to continue, when the OVBPI components are shut down.
7. Check that the OVBPI files and directories have been removed. By default these files are located at:

   `C:\Program Files\HP OpenView\OVBPI`
8. Remove the following Modeler configuration file:

   `C:\Documents and Settings\`*`profile`*`\.hp_ovbpi\modeler.cfg`

   where *`profile`* is the name of the user account where the installation was executed.
9. Reboot your Windows machine.

You have now completed the tasks to remove the OVBPI Modeler from your Windows machine.

Removing the OVBPI Dashboard

To remove the OVBPI Dashboard from a machine where it has been installed using the `Dashboards Only` installation option, complete the following steps:

1. Close the browser Window where the Dashboard is running.
2. Make sure the Servlet Engine is stopped on the machine where the OVBPI Dashboard is running.
3. Close the OVBPI Administration Console.
4. Select `Start | Settings | Control Panel | Add/Remove Programs`
5. Select `HP OpenView Business Process Insight` from the currently installed programs.
6. Click `Change/Remove` to start the uninstall program labeled `Unistall HP OpenView Business Process Insight`.

   You are presented with an introduction screen.
7. Click `Next` to continue.
8. You are asked to confirm that all the OVBPI components are shut down. Click `Uninstall` to continue, when the OVBPI components are shut down.
9. Check that the OVBPI files and directories have been removed. By default these files are located at:

   `C:\Program Files\HP OpenView\OVBPI`
10. Reboot your Windows machine.

You have now completed the tasks to remove the OVBPI Dashboard from your Windows machine.

Removing an OVBPI Custom Probes Installation

To remove the OpenView Business Process Insight Custom Probes For Internet Services from a machine where it has been installed, complete the following steps:

1. Select `Start | Settings | Control Panel | Add/Remove Programs`
2. Select `HP OpenView Business Process Insight Custom Probes for Internet Services` from the currently installed programs.
3. Click `Change/Remove` to start the uninstall program.

   You are presented with a screen that explains the uninstall process.
4. Click the `Uninstall` button to continue removing the OpenView Business Process Insight Custom Probes for Internet Services.

   You are presented with an `InstallAnywhere Uninstall` dialog. that introduces the uninstall program. Click `Uninstall` to continue.
5. Click `Quit` on the `Uninstall Complete` dialog.
6. Reboot your Windows machine.

Uninstalling the OVBPI Custom Probes does not remove existing probe instances, it removes the ability to create new probe instances; however, the existing probe instances can no longer be used and therefore should be manually deleted.

You have now completed the tasks to remove the Custom Probes from your Windows machine.

Removing a SOA Manager Adapter Installation

There are no special instructions for removing the SOA Manager adapter. The SOA Manager adapter was installed from a zip archive on the machine where SOA Manager is installed.

To delete the adapter, delete the files and the directories that were created when you unpacked the zip archive.

7 Upgrading to OVBPI Version 02.10

This chapter describes how to upgrade from an existing OVBPI version 02.0*n* machine to OVBPI version 02.10. If you are installing OVBPI for the first time, you do not need to read this chapter.

This chapter covers the following topics:

Note that you cannot upgrade from OVBPI version 01.01 directly to OVBPI version 02.10. You must upgrade from OVBPI version 01.01 to OVBPI 02.0n and then from OVBPI version 02.0n to OVBPI version 02.10.

Upgrading from OVBPI Version 01.01

You cannot upgrade from OVBPI version 01.01 directly to OVBPI version 02.10. To move from OVBPI version 01.01 to OVBPI version 02.10, complete the following steps:

1. Shut down OVBPI version 01.01 as described in the OVBPI version 01.01 documentation. Make sure that you also shut down all the OVBPI clients, including the Administration Console.
2. Follow the instructions for upgrading to OVBPI version 02.00 in the *OpenView Business Process Insight Installation Guide* for OVBPI version 02.00.

   You do not need to start any of the OVBPI components, you need only complete the upgrade.
3. Follow the instructions for upgrading to OVBPI version 02.10 as described in this chapter.

   Make sure that you:

   — upgrade to the correct version of the JDK before starting the OVBPI version 02.10 installation.

   — redeploy all your Business Flows when you have completed the upgrade process.

   See also section Upgrade Information on page 171.

If you are currently using OVBPI with a version of Oracle that is not supported by OVBPI version 02.10, you must upgrade Oracle before upgrading to the new version of OVBPI. As an example, if you are using Oracle 8.1.7 you must upgrade to a supported version of Oracle 9i or Oracle 10g before upgrading OVBPI. There is a Technical Note (*Upgrading Your Oracle Database*) provided on the distribution media, which describes the OVBPI-related tasks that you must complete when upgrading Oracle.

New and Changed Features

OVBPI version 02.10 includes the following new and modified features:

- New version of the J2SE.

  OVBPI version 02.10 supports the JDK version 1.5, update 8 (jdk1.5.0_08). You must make sure that you install this version of the JDK before installing the new version of OVBPI. You also need to make sure that you select the correct version of the JDK during the installation.

- New installation option

  There is a new installation option offered, which is:

  `Dashboards Only`

  Use this option to install the Business Process Dashboard on a machine that is remote from the OVBPI Server components. You might want to do this in scenarios where the Dashboard is using a significant amount of the machine's resources to complete searches and display flow instance data. By installing the Dashboard on a different machine, you can increase the system resources that are available to the OVBPI Server components.

- Database schema changes

  There are two minor changes to existing database tables as follows:

  In table `Resources` and `Nodes2Resources`, the length of the `Resource_ID` column has been increased from 260 to 296 characters. This is to take account of the new Service Sources that can be defined and allows up to 40 characters for the name of the Service Source. The tables are described in the *OpenView Business Process Insight Reference Guide*.

- New and revised pages in the Administration Console:

  Changes have been made to the following Administration Console pages:

  — Status

  There are new entries on the Status page to take account of the new components added for OVBPI version 2.10, and the order of the components on the Status page has been modified.

  — Metric Engine

  There are new settings for Java Virtual machine and Threshold Alert Notification parameters.

— OVO Interoperability

  This entry has been moved to appear as one of the new Operational Service Sources.

— OVIS Interoperability

  This entry has been moved to appear as one of the new Operational Service Sources.

— Port Numbers

  There are new entries on the Port Numbers page to take account of the new components added for OVBPI version 2.10.

— Logging

  There are new entries on the Logging page to take account of:

  – the new components added for OVBPI version 2.10.

  – a new parameter to control the time allowed for starting components before they are considered to have failed.

The following pages are new for OVBPI version 2.10:

— Operational Service Source

  This is new for OVBPI version 2.10, and is where you configure all the sources of operational events for OVBPI; for example, OVO, OVIS and SOA Manager.

— OVO Adaptor

  Use this option when you want to run the OVO Adapter on the same machine as the OVBPI Server.

— Security

  This is new for OVBPI version 2.10 and is where you configure the security options, both Select Access and Servlet Engine, for your OVBPI clients.

The parameters available through the OVBPI Administration Console are all described in the *OpenView Business Process Insight Administration Guide*.

- Select Access integration

  You can secure access to the OVBPI interfaces using HP OpenView Select Access. HP Select Access is part of the HP Identity Management suite of products; it provides policy-based authentication and authorization for your applications; for example, OVBPI Repository Explorer. Using HP Select Access is described in the *OpenView Business Process Insight Administration Guide*.

- SOA Manager integration

  HP OpenView SOA Manager enables you to manage your service oriented architecture (SOA) resources. OVBPI version 2.10 provides new adapters to enable you to integrate with OpenView SOA Manager as follows:

  — using the SOA Manager service model to provide the status of SOA Manager business services to OVBPI. This is described in the *OpenView Business Process Insight Reference Guide.*

  — enabling OVBPI to receive business events from SOA Manager for the OVBPI business flows that it is monitoring. This is described in the *OpenView Business Process Insight Integration Training Guide - Business Events*.

- OV Dashboard integration

  The OpenView (OV) Dashboard is an OpenView-wide Dashboard and should not be confused with the OVBPI Business Process Dashboard, which is a Dashboard for use only with OVBPI.

  OVBPI version 02.10 enables you to link the OVBPI service impact information into the OpenView Dashboard. Refer to the OpenView Dashboard documentation for more details of the features and functions offered and how to add links to the OVBPI Business Process Dashboard. The *OpenView Business Process Insight Reference Guide* also provides information on how OVBPI integrates with OV Dashboard.

- New administration parameters for Metric Engine
  - Java Virtual Machine settings

    These parameters enable you to modify the amount of memory heap available to the JVM for the Metric Engine.
  - Threshold Alert Notification settings

    These parameters enable you to control how often the Metric Engine polls its data, and the maximum number of alert notifications delivered within a particular polling interval.

  These new parameters are fully described in the *OpenView Business Process Insight Administration Guide*.
- New and revised methods for Notification Server templates

  The following methods are new for OVBPI version 2.10:
  - getThresholdAlertNotificationPeriodDurationHours()
  - getThresholdAlertNotificationPeriodDurationMinutes()
  - getThresholdAlertNotificationPeriodDurationSeconds()
  - getThresholdAlertNotificationPeriodStart()
  - getThresholdNumberNotificationsInPeriod()
  - getThresholdAlertNotificationPeriodEnd()
  - getThresholdNumberAlertsInPeriod()
  - getThresholdNumberNormalAlertsInPeriod()
  - getThresholdNumberWarningAlertsInPeriod()
  - getThresholdNumberMinorAlertsInPeriod()
  - getThresholdNumberMajorAlertsInPeriod()
  - getThresholdNumberCriticalAlertsInPeriod()
  - getThresholdAlertStatusChangeTime()
  - getThresholdAlertRaisedTime()

  The following methods have been revised for OVBPI version 2.10. They replace the methods of the same name. They differ only in that the new methods return a double number in String format for localization. The old methods are still supported for backwards compatibility:

- getOvisObjectiveValue()
- getOvisObjectiveThreshold()
- getOvisAgreementConformanceThreshold()
- getOvisAgreementConformance()

These new and revised methods are described in the *OpenView Business Process Insight Administration Guide*.

- You can configure and run OVO Adapter on same machine as the OVBPI Server.

  You can now run the OVO Adapter on the same machine as the OVBPI Server. In previous versions of OVBPI this configuration set up was not supported. You add the OVO Adapter to your OVBPI configuration using the new OVO Adapter option in the Administration Console.

- OVBPI Modeler and BPEL import

  OVBPI version 02.10 enables you to import Business Process Execution Language (BPEL) definitions into the Modeler and use these BPEL definitions as the start point of your Flow definition. Refer to the *OpenView Business Process Insight Integration Training Guide - Importing BPEL*, for more information on the options for importing BPEL definitions.

- Support for Microsoft Server Clusters to provide high availability capabilities.

  You can install and set up OVBPI version 02.10 to operate in a Microsoft Server Cluster environment (in an Active/Passive mode). This is described in the *OpenView Business Process Insight System Administration Guide*.

- Introduction of Junction Nodes in OVBPI Modeler

  OVBPI 02.10 has introduced a new type of node in the OVBPI Modeler, the Junction Node. This new node is used to visually define the structure of a business flow.

  In particular, when you import a BPEL process, the OVBPI Modeler creates a Junction Node for the start and end of each BPEL structural element.

  As this is a new type of node, you might see some anomalies when using a Business Process Dashboard that is pre OVBPI version 02.10 with Business Flows that are created using OVBPI version 02.10 and that include Junction Nodes.

  When displayed in pre OVBPI version 02.01 Business Process Dashboards, a Junction Node is displayed as a red square. This does not have an effect on the behavior of the Business Process Dashboard, it is a presentation anomaly only and can be ignored.

- Support of Self-Healing service

  HP Self-Healing Services, as used by OVBPI version 02.10, automates some of the steps involved in collecting information about a problem and then packaging the information to send it to HP.

  OVBPI version 02.10's use of the Self-Healing services is described in the *OpenView Business Process Insight Reference Guide*.

- New documents in the OVBPI documentation set:

  — *OpenView Business Process Insight Reference Guide*

  — *OpenView Business Process Insight Integration Training Guide - Importing BPEL*

  — *OpenView Business Process Insight Metric Definer Online Help*

Now read section Upgrade Information on page 171 for details of the what you need to consider before starting the upgrade from OVBPI version 02.0*n* to OVBPI version 02.10.

Upgrade Information

This section provides information that you need to be aware of before starting the upgrade to OVBPI version 02.10.

Section Tasks to Complete Before Starting the Upgrade on page 171 describes tasks that you might need to complete before starting the upgrade.

Section Information to be Aware of Before Starting the Upgrade on page 172 describes information that you might find helpful to know about the behavior of your OVBPI machine following an upgrade to OVBPI version 02.10.

Tasks to Complete Before Starting the Upgrade

The following are tasks that you are advised to complete before starting the upgrade:

1. Check database table use

   If you have created a Microsoft SQL Server Database Name or Oracle Server User name for use by multiple applications, you need to check the list of table names that are created for OVBPI version 02.10 before starting the upgrade process. If you have user-defined, or application, tables that have the same name as the OVBPI tables defined for version 02.10, you need to remove them from the OVBPI schema, or database, before starting the upgrade. If you do not, the upgrade process is likely to fail.

   You are strongly advised to have a Database or Database User specifically for OVBPI to prevent any possibility of table name clashes.

   The full list of table names created by OVBPI version 02.10 is listed in the *HP OpenView Business Process Insight Administration Guide*.

If you are using OVBPI with a version of Oracle that is not supported by OVBPI version 02.10, you must upgrade Oracle before upgrading to the new version of OVBPI. As an example, if you are using Oracle 8.1.7.4 you must upgrade to a supported version of Oracle 9i or Oracle 10g before upgrading OVBPI. There is a Technical Note (*Upgrading Your Oracle Database*) provided on the distribution media, which describes the OVBPI-related tasks that you must complete when upgrading Oracle.

Information to be Aware of Before Starting the Upgrade

This section describes information that you need to be aware of in order to understand the OVBPI machine behavior following the upgrade to OVBPI version 02.10.

- Following the upgrade to OVBPI version 02.10, any flows that were being monitored in the Business Impact Engine continue to be monitored. The upgrade to OVBPI version 02.10 does not impact your operational system.
- Following the upgrade to OVBPI version 02.10, all flows in the Modeler remain in the same state (deployed and undeployed) as they were before the upgrade.
- Following the upgrade to OVBPI version 02.10, the Business Process Dashboard continues to operate as before, the upgrade makes no changes to the existing Business Process Dashboard.

  OVBPI version 02.10 does include changes to the Business Process Dashboard, and a new set of Dashboard files with these changes is installed with OVBPI version 02.10.

  If you have not made any changes to the Business Process Dashboard for OVBPI version 02.0*n*, you can move to the new Dashboard with no impact to your operation. If you have customized the OVBPI version 02.0*n* Business Process Dashboard, you need to make the equivalent changes to the OVBPI version 02.10 Dashboard files; section Post Upgrade Tasks on page 187 describes the tasks that you need to complete, following the upgrade, including moving to the new Dashboard.
- Following the upgrade, changes made to the following script in the `examples` directory are preserved, by renaming the file.

  `OVBPI-install-dir``\examples\bia\ServiceDeskAdaptors\SD_Adaptor_Config.properties`

  The file is renamed to `SD_Adaptor_Config.properties.bak.`*`n`*, where *`n`* starts at zero (0) and is incremented by one (1) for each reinstallation until it reaches a value of 19, at which point the numbering restarts at zero (0). After the numbering restarts at zero, the installer continues to use zero and does not increment *`n`*.

  Following the upgrade, you must reapply any changes that you made to the file: `SD_Adaptor_Config.properties`.

The following script is affected in the same way. The version of the script that you have installed depends on the version of Service Desk you are using with Service Desk Process Insight:

OVBPI-install-dir\examples\bia\ServiceDeskAdaptors\SD5.0_Adaptor_Config.properties

- If you have deployed any of the contributed flows; for example, the RFID_SupplyChain flow, you can continue to use these flows with OVBPI version 02.10. However, if you are using a version 02.0*n* flow, you must use the correct version of the test script for the flow. You cannot use any of the OVBPI version 02.10 test scripts with version 02.0*n* business flows and you cannot use version 02.0*n* test scripts with version 02.10 business flows.
- If you intend to use any of the contributed component programs; for example, the Flow Simulator, you must use the version 02.10 programs with OVBPI version 02.10, you cannot use the 02.0*n* versions of the contributes programs with OVBPI version 02.10.

Supported Upgrade Options

The following are the supported ways that you can upgrade from OVBPI version 02.0*n* to OVBPI version 02.10. In all cases, you must shut down and upgrade all OVBPI components together. OVBPI version 02.0*n* components do not interwork with OVBPI version 02.10 components.

- Server and Modeler installation

  You can upgrade from a `Server and Modeler` installation; however, you must keep the same database, including database version.

- Server Only installation

  You can upgrade from a `Server Only` installation in the same way as a `Server and Modeler` installation. You can also upgrade a `Server Only` installation to a `Server and Modeler` installation.

- Modeler installation

  You must upgrade a `Modeler Only` installation in order that it is compatible with the `Server Only` installation for OVBPI version 02.10.

  You can also upgrade from a `Modeler Only` installation to a `Server and Modeler` installation.

- OVO Adapter

  You must upgrade an `OVO Adaptor` installation to be compatible with the OVBPI version 02.10 Server installation; either a `Server and Modeler` installation or a `Server Only` installation.

  Refer to section Information Required for an OVO Adapter Installation on page 87 for details of the information required for this installation.

- OVBPI OVIS Custom Probes installation

  You must upgrade an `OVBPI OVIS Custom Probes` installation to be compatible with the OVBPI version 02.10 Server installation; this can be in the form of a `Server and Modeler` installation or a `Server Only` installation.

  Refer to section Information Required for an OVIS Custom Probes Installation on page 89 for details of the information required for this installation.

Overview of Upgrade

There is no specific upgrade process for OVBPI version 02.10. You complete the upgrade by over installing OVBPI version 02.0*n* with OVBPI version 02.10. However, there are some details that you need to consider before completing the upgrade; these are described in the following sections.

Revised Version of J2SE Required

OVBPI version 02.10 supports a new version of the J2SE. This new version must be installed before you start the OVBPI version 2.10 upgrade process; see Chapter 2, Before Starting the Installation.

Business Process Dashboard

The upgrade process does not make any changes to the Business Process Dashboard files; these are left in place and are accessible using the same URL as used for OVBPI version 02.0*n*.

Section Moving to the OVBPI Version 02.10 Business Process Dashboard and Service Desk Process Insight Dashboard on page 189 describes how you can move to using the new Dashboard when you have upgraded from OVBPI version 02.0*n* to OVBPI version 02.10.

Installation Question Defaults

All existing settings for your OVBPI configuration are offered as a default for answers to the installation questions. You therefore need to make sure that you modify the directory where the J2SE is installed when you are answering the installation questions, as the installation procedure defaults to the version installed for OVBPI version 02.00.

You must not choose a different folder for OVBPI when answering questions related to the name and location of the directory where the OVBPI files are installed. You can install and run only one copy of the OVBPI Server on a single machine.

Copying Changed Component Configuration Files

Before starting the upgrade process make sure that you have taken a copy of any files that you have modified whilst using OVBPI version 02.0*n* before starting the procedure. You can then reapply the changes to the files after the upgrade is complete.

Examples of files that you might have changed are configuration files and the SQL script for archiving Active and Deleted instances.

The OVBPI master configuration file, which is manager through the Administration Console, is updated as part of the upgrade process.

Backing Up Your System

Before starting the upgrade, you are strongly advised to back up your machine and database. Make sure that you shut down all the OVBPI components, using the Administration console, before backing up your machine and starting the upgrade process.

Upgrading a Server and Modeler Installation

This section covers the steps that you need to complete to upgrade the OVBPI components using the Server and Modeler Installation option.

1. Make sure that all the OVBPI components are stopped on all machines where they are running. This includes any remote OVBPI Modeler installation and OVBPI OVO Adapter installation.

   If the installer detects any of the OVBPI components still running, the installation is aborted until the components are stopped.

2. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an installation GUI that leads you through the steps to install your OVBPI components. Click `Next` to start the installation.

Continue the installation at section General OVBPI Settings on page 177

General OVBPI Settings

Answer the installation questions as follows:

1. From the `Choose Install Folder` dialog, check that the directory presented matches where OVBPI is installed and click `Next` to accept the installation directory when it is correct.

   You must not choose a different folder for OVBPI, as only one copy of the OVBPI Server can be run on a single machine. If you do select a different folder, the installer assumes a new installation as no existing OVBPI files are detected and your existing OVBPI version 02.0*n* machine is not migrated.

   A message is displayed, stating that OVBPI components are already installed and reminding you to ensure that all the OVBPI components have been stopped before continuing.

2. Click `Next` to confirm and continue.

3. From the `Choose Product Features` dialog, select `Server and Modeler` Installation and click `Next`.
4. From the `JDK Home` dialog select `Choose` to navigate to the directory where the new version of J2SE is installed and click next to continue.

   Make sure that you select the directory where the updated version of the J2SE is installed.

From the `Pre-Installation Summary` dialog, check the details on the summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the OVBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Continue and upgrade any remaining OVBPI components as appropriate and then complete any relevant post upgrade tasks described in section Post Upgrade Tasks on page 187.

Upgrading a Server Only Installation

Complete the following steps to upgrade the OVBPI Server Only components on a Windows machine:

1. Make sure that all the OVBPI components are stopped. Use the `Stop All` option on the OVBPI Administration Console to do this. Also stop any remote components, for example, OVBPI Modeler.
2. From an account with Administrator privileges, run the version 02.10 installation procedure from the distribution media as follows:

   cd-drive`\i386\ovbpi-install.exe`

   You are presented with an installation GUI that leads you through the steps to install your OVBPI components. Click `Next` to start the installation.
3. From the `Choose Install Folder` dialog, check that the directory presented matches where OVBPI is installed and click `Next` to accept the installation directory when it is correct.

   You must not choose a different folder for OVBPI, as only one copy of the OVBPI Server can be run on a single machine. If you do select a different folder, the installer assumes a new installation as no existing OVBPI files are detected and your existing OVBPI version 02.0*n* system is not migrated.

   A message is displayed, stating that OVBPI components are already installed and reminding you to ensure that all the OVBPI components have been stopped before continuing.
4. Click Next to confirm and continue.
5. From the `Choose Product Features` dialog, select the `Server Only` Installation and click `Next`.

   You also have the option to select `Server and Modeler` as an option for upgrading.
6. From the `JDK Home` dialog select `Choose` to navigate to the directory where the new version of J2SE is installed and click next to continue.

   Make sure that you select the directory where the updated version of the J2SE is installed.

From the `Pre-Installation Summary` dialog, check the details on the summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the OVBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Continue and upgrade any remaining OVBPI components as appropriate and then complete any relevant post upgrade tasks described in section Post Upgrade Tasks on page 187.

Upgrading a Modeler Only Installation

Complete the following steps to upgrade the OVBPI Modeler component on a Windows machine:

1. Make sure that the Model Repository is stopped, on the OVBPI server machine, before re-installing the Modeler.
2. Shut down the OVBPI Modeler.
3. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

   cd-drive\i386\ovbpi-install.exe

   You are presented with an installation GUI that leads you through the steps to install your OVBPI components. Click `Next` to start the installation.
4. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI Modeler is already installed.

   If you do not select the directory where the Modeler is already installed, the installer continues and installs a second OVBPI Modeler on your machine.

   You are presented with a message informing you that OVBPI is already installed. Click `OK` and then `Next` if you want to continue, or click `OK` and `Cancel` to finish the installation immediately without upgrading.
5. Select `Modeler Only` and click `Next`.
6. Select the `Choose` option to navigate to the directory where the new version of J2SE is installed and click next to continue.

   Make sure that you select the directory where the updated version of the J2SE is installed.
7. Check the details on the `Pre-Installation Summary` dialog. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the OVBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Continue and upgrade the remaining OVBPI components as appropriate and then complete any relevant post upgrade tasks described in section Post Upgrade Tasks on page 187.

Upgrading an OVBPI OVO Adapter Installation

The following sections describe how to update the OVBPI OVO adapter on HP-UX and Windows.

Windows

Complete the following steps to upgrade the OVBPI OVO Adapter component on a Windows machine:

1. Shut down any OVBPI components that are running on the machine where the OVBPI OVO adapter is running.
2. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

   cd-drive\i386\ovbpi-install.exe

   You are presented with an installation GUI that leads you through the steps to install your OVBPI components. Click `Next` to start the installation.
3. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI OVO Adapter is already installed.

   If you do not select the directory where the adapter is already installed, the installer continues and installs a second OVBPI adapter on your machine.

   You are presented with a message informing you that OVBPI is already installed. Click `OK` and then `Next` if you want to continue, or click `OK` and `Cancel` to finish the installation immediately without upgrading.
4. Select `OVO Adaptor` and click `Next`.

5. From the `JDK Home` dialog select `Choose` to navigate to the directory where the new version of J2SE is installed and click next to continue.

   Make sure that you select the directory where the updated version of the J2SE is installed.

6. Check the details on the `Pre-Installation Summary` dialog. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the OVBPI directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Continue and upgrade the remaining OVBPI components as appropriate and then complete any relevant post upgrade tasks described in section Post Upgrade Tasks on page 187.

HP-UX

You can upgrade you OVBPI OVO Adapter installation on HP-UX by following the instructions in this section.

1. Make sure that any OVBPI components are stopped on the machine where the adapter is installed. Use the `Stop All` option on the OVBPI Administration Console to do this and then close the OVBPI Administration Console.
2. Log on with system administration (root) capability.
3. Change directory to where the OVBPI installation image is located.
4. Run the installation program as follows:

   ```
   .sh /hp-ux/ovpbi-ovo-adaptor-install.bin
   ```

   When the installation image has been extracted, the installer GUI starts on the machine where the `DISPLAY` environment variable is configured to display.

   Click `Next` until you are presented with the `Choose Install Folder` dialog.

5. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI OVO Adapter is already installed.

   If you do not select the directory where the Adapter is already installed, the installer continues and installs a second Adapter on your machine.

   You are presented with a message informing you that OVBPI is already installed. Click `OK` and then `Next` if you want to continue, or click `OK` and `Cancel` to finish the installation immediately without upgrading.

6. Click `OK` and then `Next` to continue with the upgrade. If you want to exit from the installation click `Cancel`.

7. From the `JDK Home` dialog select `Choose` to navigate to the directory where the new version of J2SE is installed and click next to continue.

   Make sure that you select the directory where the updated version of the J2SE is installed.

8. Check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

The installation procedure continues and installs the OVBPI OVO Adapter directories and files. When the installation is complete, click `Done` to exit the installation procedure.

Continue and upgrade the remaining OVBPI components as appropriate and then complete any relevant post upgrade tasks described in section Post Upgrade Tasks on page 187.

Upgrading an OVBPI Custom Probe Installation

Complete the following steps to upgrade the OVBPI Custom Probes for OVIS:

1. If you have modified the `OvbpiProbe.cfg` file to configure multiple OVBPI Servers, make a copy of the file before starting the upgrade.
2. From an account with Administrator privileges, run the installation procedure from the distribution media as follows:

   cd-drive`\i386\ovbpi-custom-probe-install.exe`

   You are presented with an installation GUI that leads you through the steps to install you OVBPI components. Click `Next` to start the installation.
3. From the `Choose Install Folder` dialog, make sure that you have selected the directory where the OVBPI Custom Probes are already installed.

   If you do not select the same directory, the installer continues and installs a second set of probes in a new directory on your machine.

   You are presented with a message informing you that the probes are already installed. Click `OK` to dismiss the message and continue with the installation at the `OVBPI Database Type` dialog as follows:
4. From the `OVBPI Database Type` dialog, select the database type that you configured for OVBPI to use to store flow data, click `Next`.

   If you selected Microsoft SQL Server, continue at step 7, otherwise, continue at step 5 for Oracle.
5. From the `Oracle ODBC Driver Name` dialog, enter, or accept, the name for the ODBC driver that you want OVBPI to use when making a connection to the OVIS Oracle database.
6. From the `Net Service Name` dialog, enter, or accept, the name that you configured for the Oracle Net Service and click `Next`.

   Continue at step 9.
7. From the `OVBPI Database Hostname` dialog, enter the hostname for the machine where the database used by OVBPI is installed and running.
8. From the `OVBPI MSSQL Database Schema Name` dialog, enter the name of the OVBPI schema as defined within SQL Server, for example `OvbpiSchema`.

9. From the `Pre-Installation Summary` dialog, check the details on the installation summary. If they are correct, click `Install`, if they are not, click `Previous` to correct them.

   The installation procedure continues and installs the OVBPI custom probes directories and files. When the installation is complete, you can exit the installation procedure.

10. If you made a copy of the `OvbpiProbe.cfg` file in step 1, make sure that the newly installed `OvbpiProbe.cfg` file contains the changes before continuing.

Continue and upgrade the remaining OVBPI components as appropriate and then complete the post upgrade tasks described in section Post Upgrade Tasks on page 187.

Post Upgrade Tasks

The following sections describe tasks that you might need to complete following the OVBPI upgrade.

If you do not take the actions described in these sections, you might not have a fully operational OVBPI system.

Licensing

OVBPI version 02.10 is a fully licensed product; refer to section License Key Password Redemption on page 104 for details of how to obtain and install your license key.

Reinstating Changes to Configuration Files

If you have made any changes to configuration files not listed earlier in this chapter, these changes need to be reapplied to the newly installed files.

When you have completed these changes, and completed any other applicable post upgrade tasks described in this section, you can continue and restart the OVBPI components that you stopped; see section Restarting Your OVBPI Systems on page 193.

Servlet Engine Configuration File

Following an OVBPI upgrade, a new version of the Servlet Engine configuration file (`tomcat-users.xml`) is installed. In previous versions of OVBPI, this file was overwritten. In OVBPI version 02.10, a new version of the file is installed in the same location as `tomcat-users.xml`, but with a different file name. The original file is left in place and is not modified.

The location of the Servlet Engine configuration file is:

ovbpi-install-dir`\nonOV\jakarta-tomcat-5.0.19\conf`

The name of the file is the same as the original file, and appended to the file name is a string, which indicates the version of OVBPI that the file is associated with for example:

```
tomcat-users.xml.A.02.10.000
```

You need to compare the new file with your existing configuration file and copy the changes for OVBPI version 02.10 into the existing file.

For OVBPI version 02.10, the changes that you need to be aware of are:

1. A change in structure of the OVBPI related entries to make it easier to locate differences.
2. New entries in the file for the OVBPI Business Process Dashboard (`ovbpi-dashboard`) and the Service Desk Process Insight Dashboard (`ovbpi-sdpi-dashboard`). You need to:
   - copy the `<role rolename ...>` information for the Dashboards
   - append the new entries for the Dashboards to the `<user username...>` entry that already exists for the `admin` user.
   - copy the new `<user username...>` entry for the `dashboard` user.

The newly installed Servlet Engine configuration file is as follows and the new entries that you need to extract and copy into the existing `tomcat-users.xml` file are shown emphasized in bold text:

```
<?xml version='1.0' encoding='utf-8'?>
<tomcat-users>
  <role rolename="ovbpi-event-injector"/>
  <role rolename="ovbpi-int-client"/>
  <role rolename="ovbpi-notify-admin"/>
  <role rolename="ovbpi-metric-definer"/>
  <role rolename="ovbpi-model-repository"/>
  <role rolename="ovbpi-dashboard"/>
  <role rolename="ovbpi-sdpi-dashboard"/>

  <user username="admin" password="ovbpi"
roles="ovbpi-notify-admin,ovbpi-int-client,ovbpi-event-injector,
ovbpi-metric-definer,ovbpi-model-repository,ovbpi-dashboard,ov
bpi-sdpi-dashboard"/>
  <user username="dashboard" password="console"
roles="ovbpi-dashboard,ovbpi-sdpi-dashboard"/>
</tomcat-users>
```

The reason that the OVBPI installation procedure does not replace the file, as it did in previous versions, is because you might have made your own changes to the file, which are then overwritten by the OVBPI installation procedure.

Redeploy Existing Business Flows

You need only complete the actions described in this section if you are:

1. upgrading from OVBPI version 01.01
2. you are using OVBPI version 02.00 and you have Business Flows that were created in OVBPI version 01.01 and that have not been redeployed in OVBPI version 02.00.

If you want to take advantage of the performance enhancements introduced in OVBPI version 02.00, you need to undeploy and then redeploy any existing business flows from within the OVBPI Modeler.

If you redeploy your flows, the existing flows are then superseded; however, any Business process metrics defined for existing flows are automatically transferred to the new versions of the flows.In this case, the statistics collected for the metric definition on the newly deployed flow are reset to zero. You therefore lose all the historical data relating to the business process metric definition. The superseded flow has the historical statistical information.

Moving to the OVBPI Version 02.10 Business Process Dashboard and Service Desk Process Insight Dashboard

This section describes post-upgrade tasks relating to the Business Process Dashboard and to the Service Desk Process Insight Dashboard as follows:

- Using Earlier Versions of the Business Process Dashboard and Service Desk Process Insight Dashboard on page 189
- New URLs for Dashboard on page 190
- Removing Files for Unwanted Versions of Dashboard Files on page 192

Using Earlier Versions of the Business Process Dashboard and Service Desk Process Insight Dashboard

In some cases, following the upgrade to OVBPI version 02.10, you are unable to start older versions of the OVBPI Dashboards; you receive an `HTTP Status 500 error`.

The versions of the Dashboards that are affected are those versions that you have created (making copies using the installed version) and that are based on versions of OVBPI before and including OVBPI version 02.01. Versions of the Dashboard created by the OVBPI installer are not affected.

This is because OVBPI now uses a different version of the J2SE (jdk1.5.0_08) and this new version of the J2SE has introduced a keyword that clashes with a variable name used in earlier versions of the Dashboards. The upgrade procedure automatically updates known versions of the Dashboards; however, versions that you have created must be corrected manually.

In order to use your customized versions of the Dashboards, you need to edit the method `getUserLocale()` in the following file in the directory where you created the new copy of the Dashboard:

`common.jsp`

Locate the following variable name in the file:

`enum`

Replace enum with the following:

`eattr`

You can check your changes with the new Dashboard installed for OVBPI version 02.10.

If you have used the variable `enum` in other `.jsp` files, you need to make the same changes to these files.

New URLs for Dashboard

When you have completed your upgrade there are two entries for the Business Process Dashboard on the `Start` menu, for example:

- Dashboard 2.0*n*

  This is the link to the OVBPI version 02.0*n* Business Process Dashboard

- Dashboard 2.10

  This is the link to the OVBPI version 02.10 Business Process Dashboard

If you have customized version 02.0*n* of the Business Process Dashboard, it is possible that the new Dashboard does not display all your data as you expect as a result of these customizations. If this is the case, you might want to keep using the version 02.0*n* Dashboard until you have made the appropriate changes to the new Dashboard.

If you have minor customization to the Business Process Dashboard, you can make the same changes to the newly installed version of the Dashboard. If you made extensive changes to the Business Process Dashboard, you have the choice of making the same changes to the newly installed Dashboard, or choose not to move to the new Dashboard and stay using the Dashboard that you have customized.

The URL for the OVBPI version 02.0*n* Dashboard remains unchanged, so all existing links to the version 02.0*n* Dashboard continue to work. There is a new URL for the OVBPI version 02.10 Dashboard as follows:

`http://`*`hostname`*`:44080/ovbpidashboard2-10`

When you have completed the updates to the new Dashboard, you can provide the new URL to your users.

There is an additional URL for the Business Process Dashboard. This URL redirects users to the latest installed version of the Business Process Dashboard, and will remain constant in future versions of OVBPI. The new URL is as follows:

`http://`*`hostname`*`:44080/ovbpi-bpd`

In the case of OVBPI version 02.10, this URL redirects the user to:

`http://`*`hostname`*`:44080/ovbpidashboard2-10`

Removing Files for Unwanted Versions of Dashboard Files

Each time you reinstall the Business Process Dashboard or the Service Desk Process Insight Dashboard, a new version of the Dashboard files are created at the following location:

ovbpi-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps

For each installation, a Dashboard .war file is created for OVBPI and for Service Desk Process Insight and named as follows:

- ovbpidashboard.war (Business Process Dashboard)
- ovbpi_sd_dashboard.war (Service Desk Process Insight Dashboard)

  The actual file name varies according to the version of OVBPI or whether this is a new installation, an over-installation or an upgrade. The files accumulate because they are renamed each time you reinstall OVBPI, in order to preserve changes; see also section Before Starting the Re-installation Procedure on page 136 for more information on the file renaming. You can delete those files that are no longer required, but make sure that you keep the current version of the Dashboards and the version that is currently in use; these versions are the same, unless you have created customized Dashboards.

  Each .war file has an associated directory structure, which is created when you start the Servlet Engine. The directory name is based on the name of the .war file. There are also .bak directories created when you reinstall OVBPI; these can also be deleted if they are no longer required.

Keeping multiple copies of these .war files and their associated directories can have an impact on the performance of your machine. This is because each time you make a change to a configuration parameter using the Administration Console, the change needs to be propagated to all the files.

You are advised to delete the copies of these unwanted .war files and their associated directories following an OVBPI upgrade.

Restarting Your OVBPI Systems

When you have completed the upgrade of all the OVBPI components, you can restart the OVBPI components using the Administration Console, or you can use the newly installed Windows Services for starting the OVBPI Server components.

You can also verify the installation using the example business flow described in Chapter 4, Verifying the Installation.

What to do Next

When you have upgraded OVBPI and reapplied your changes, you have completed the upgrade tasks and you can continue using your OVBPI machine.

8 Reporting Problems to Hewlett-Packard

Before reporting problems to Hewlett-Packard, make sure that you have the following information available.

If the problem is with the OVBPI Server:

- The hostname and host ID of the machine where the OVBPI component is running.
- The operating system, and its version, plus patches on all the systems where the OVBPI components are running, including the OVBPI OVO Adapter and OVBPI Custom Probes, where appropriate.
- A copy of the log files for all the OVBPI components.
- A copy of any relevant trace files.
- A note of any error messages reported with the problem.
- A copy of your installation log files, which are located at:
  - *OVBPI-install-dir*\HP_OpenView_Business_Process_Insight_InstallLog.log (Windows)
  - *OVBPI-install-dir*/HP_OpenView_Business_Process_Insight_InstallLog.log (HP-UX)
  - *OVBPI-install-dir*\HP_OpenView_Business_Process_Insight_DBSetupLog.log (if present)
- A copy of the latest InstallAnywhere installation log files, which are located at the root directory of the drive where you installed OVBPI; for example C:\. The InstallAnywhere installation log files for OVBPI components all start with the string `hpovpbi...`

  There are log files for the OVBPI installation procedure, the OVBPI uninstallation procedure and the OVBPI custom probes for OVIS installation and uninstallation.

- All OVBPI install and uninstall files in the root directory where you have installed OVBPI.
- A copy of the database log file.
- A copy of the OVBPI database tables at the time of the problem; see the *OpenView Business Process Insight Reference Guide* for a complete list of the relevant database tables.
- If appropriate, a copy of log file for the OVBPI custom probes for OVIS installation, which is located at:

  `*OVIS-install-dir*\newconfig\HP_OpenView_Business_Process_Insight_Custom_Probes_for_Internet_Services_InstallLog.log`
- Screen captures of any error dialog boxes.
- The output from the following command on the machine where the OVBPI OVO Adapter for HP-UX is running:

  `/usr/sbin/sysdef`

  This command analyses the currently running system and reports on the tunable kernel parameters.
- The output from the following command on HP-UX:

  `/usr/sbin/swapinfo`

  This command prints device and file system paging space.
- A copy of the output from running the Integrity Checker. Using the Integrity Checker is described in the *OpenView Business Process Insight System Administration Guide*.

If the problem is with the OVBPI Business Process Dashboard, use the `View|Source` option in the Web browser to view the source of the Web page where the problem is and copy the source to a file. If you were presented with an error report from the Dashboard, take a screen capture of the error report. You can then make these available to HP.

If the problem is with the OVBPI Modeler, supply the following information to HP:

- A copy of `modelclasses.cfg`, which is located in the `*ovbpi-install-dir*\data\conf\bia` directory.
- A copy of any Flow, Data and Event definitions from the Modeler. These can be exported from the Modeler as described in the *OpenView Business Process Insight System Administration Guide*.

Self-Healing Services

OVBPI supports the HP OpenView Self- Healing services, which enables OVBPI to automate some of the steps involved in collecting information about a problem and package the information so you can send it to HP.

Self-Healing Services are available all HP OpenView customers who have a support contract. HP OpenView Self-Healing Services will dramatically simplify how you resolve OpenView application issues and speed up the support troubleshooting process.

Self-Healing Services (SHS) is a free service for HP support customers that automates many of the steps involved in troubleshooting, searching for solutions, and submitting support cases for HP OpenView applications.

You can save even more time by using the quick and easy case submission link that you initiate when needed. HP support will already have the data they would normally ask you for when you submit a support case. Self healing is enabled by downloading and installing the Self-Healing Services client and the Instant Support Enterprise Edition (ISEE) client.

OVBPI's integration with the OpenView Self-Healing incident reporting is able to:

- Create system-specific incident reports with detailed analysis
- Present documented solutions from HP's support knowledge base
- Provide comprehensive HP OpenView patch analysis
- Capture the state of the system and OVBPI when a problem occurs

You can utilize this service to gather information about a problem and send this information to HP using a secure Web access mechanism. The type of information that OVBPI collects includes:

- OVBPI installation log files
- Version numbers of the OVBPI components
- Database version number
- Installation status of all OVBPI components
- Output of the Integrity Checker

- Content of all the most recent OVBPI component log files in the following directory:

  ovbpi-install-dir\data\conf\bia\logs

  Where the size of the log file is significantly large, only the first and last 1000 lines of the file are collected.
- Operating system environment variables
- Servlet Engine log file
- content of the OVBPI `version.properties` file
- all the configuration files in the following directory:

  ovbpi-install-dir\data\conf\bia

Details of how to set up your system and download the software that you need to run in order to use the Self-Healing Service can be found at the following URL:

http://support.openview.hp.com/self_healing_downloads.jsp

There is a `download software` option under the `Self-Healing Services Downloads` heading on this Web page.

Data Collector Details

The Data Collector used by OVBPI has the following characteristics:

- A long name (or description), which is `business process insight`
- A source name, which is `bpi`
- A set of components as follows:
  - bia-af
  - bia-admin
  - bia-bce
  - bia-common
  - bia-event
  - bia-metric
  - bia-modeler

- bia-model-repository
- bia-notify
- bia-views
- bia-webservices
- database

Running the Data Collector as a Standalone Tool

In addition to using the Self-Healing Services, you can run the Data Collector to collect the data for the Self-Healing Services independently. This enables you to gather information relating to the OVBPI machine. You might need to do this at the request of your support representative as part of the diagnosis of a problem, or you might want to collect data for your own troubleshooting purposes.

There are two scripts for running the OVBPI Data Collector, the only difference between the two is that one of the scrips packages all the files generated by the OVBPI Data Collector into a zip archive file. You can then send this file to HP if required.

The scripts are named and located as follows:

- *ovbpi-install-dir*\lbin\bia\archiveovbpicollector.bat
- *ovbpi-install-dir*\lbin\bia\ovbpicollector.bat

The script prefixed archive, is the script that also creates the zip archive file.

When you execute these scripts the data collected is written to the following directory:

ovbpi-install-dir\data\log\selfhealing

If the directory does not already exist, it is created when the script is executed.

Index

E

F

H

I

J

K

L

M

N

O

P

Q

R

S

T

U

V

W