

HP OpenView Business Process Insight

For the Windows® Operating System

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Problem Solving Guide

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1 Introduction

This chapter introduces the topics covered in this guide and provides information about how to contact HP if you are unable to resolve the problem. The chapter also describes the tools that are available to you to help identify and resolve problems, which are described in this guide.

The following topics are covered in this chapter:

- How to contact HP; see section [Contacting HP](#) on page 10.
- The OVBPI problem solving tools that are available to you; see section [Tools for Problem Solving](#) on page 11.

Specific problem areas are described in the following chapters of this guide:

- [Chapter 2, Problems Installing and Removing OVBPI Components.](#)
- [Chapter 3, Problems Starting and Stopping Your OVBPI Components](#)
- [Chapter 4, Problems with Performance](#)
- [Chapter 5, Problems Using the OVBPI Clients](#)
- [Chapter 6, Problems Using the Administration Console](#)
- [Chapter 8, Problems with OVBPI, OVIS, OVSD and OVD Integration](#)
- [Chapter 7, Problems with Flows and Business Events](#)
- [Chapter 10, Files and System Problems](#)
- [Chapter 9, Problems When Creating Data in the OVBPI Database](#)
- [Chapter 11, openadaptor Problems](#)

Using the log files and trace files to identify problems with the OVBPI system is described in [Chapter 12, Logging and Tracing Problems.](#)

Contacting HP

If you cannot find a solution to your problem, contact your local support representative, or visit the HP OpenView Website at:

<http://www.managementsoftware.hp.com/>

From this site you can find contact information and details about the products, services, and support that HP OpenView offers.

You can also go directly to the support web site at:

<http://www.hp.com/managementsoftware/support>

Make sure that you have read the OVBPI Release Notes, which are located on your distribution media. The Release Notes contain information about any restrictions that might impact your OVBPI system, and also related products where these have an impact on OVBPI.

Tools for Problem Solving

The following OVBPI components can be used for identifying problems, and in some cases can be used to resolve problems:

- OVBPI Administration Console

The OVBPI Administration Console presents the parameters that you can modify to change some of the configuration for your OVBPI system. The *OpenView Business Process Insight System Administration Guide* describes these parameters; however, you should change the parameter values only when requested to do so, or as the result of a change in your configuration.

Using the OVBPI Administration Console, you can view OVBPI component log files and temporarily change the level of detail logged by one or all OVBPI components. Changing the level of detail enables you to obtain more information about the problem; however, you should set the level of detail on a temporary basis only, as the log files consume a large amount of disk space.

- Intervention Client

Use the Intervention Client to delete instances and definitions within your OVBPI system and can also be used to make modifications to instances. The *OpenView Business Process Insight System Administration Guide* describes the Intervention Client in more detail.

- Engine Instance Cleaner parameters

Use these parameters to manage the amount of completed and active flow data that is stored in the database. You also have the option to archive this data to another location if you want to preserve it. The *OpenView Business Process Insight System Administration Guide* provides details of how to do this.

- Integrity Checker

Use the Integrity Checker to check that your OVBPI system is installed correctly, for example, that the J2SE version is correct. Section [Using the Integrity Checker for Problem Solving](#) on page 13 of this chapter provides details about how to use the Integrity Checker.

- Business Process Dashboard

The Business Process Dashboard is the interface used to view the progress of the flows defined within your OVBPI system. However, you can also use the Business Process Dashboard to identify problems with flows, data and how your flow is progressing. You can then use other tools to solve the problems that you have identified through the Business Process Dashboard; see section [Using the Business Process Dashboard for Problem Solving](#) on page 16.

- Repository Explorer

The Repository Explorer is a Web interface that you can use to view the contents of the Model Repository. It enables you to view all elements of your definitions on one page.; you can also print your business Flow definitions. This overview of your business flow definitions, including progression rules, is very helpful when trying to identify problems with your Business Flows.

- Log Files

Errors and warnings related to the OVBPI system are written to the log files. These log files can then be viewed through the OVBPI Administration Console. [Chapter 12, Logging and Tracing Problems](#) describes the format of the log files.

- Trace files

OVBPI uses the OpenView XPL tracing mechanism; this is described in [Chapter 12, Logging and Tracing Problems](#). You can use the information provided in the Trace files to further isolate a problem with your system. Be aware that you might be asked to provide trace files by the HP support organization.

- Database tools

You can use the database tools provided with your database server to view the OVBPI database tables and their content. This is useful if the Business Process Dashboard is not displaying the information that you are expecting. The database tables used by OVBPI are listed and described in the *OpenView Business Process Insight Reference Guide*.

The following contributed tool can also be used for isolating and identifying problems. Contributed tools are not part of the supported product, but they have been included as you might find them useful for some troubleshooting activities:

- Adaptor Console for monitoring your Event adaptors from a central location.

openadaptor provides the ability for an adaptor to be controlled remotely using the Adaptor Console. There is a contributed component called the JSP Adaptor Console to help monitor and control your adaptors.

The Adaptor Console is located on the distribution media under the following directory:

```
cd-drive\contrib\openadaptorConsole
```

Refer to the `readme` file in the same directory for instructions on using the Adaptor Console, and refer to the disclaimer text in the `contrib` directory for details of the terms of use for contributed components.

Using the Integrity Checker for Problem Solving

All the OVBPI components produce logging and tracing files that you can use to identify problems within your OVBPI system; however, these log and trace files do not detect changes to the characteristics and file permissions of the OVBPI files and directories, nor do they inform you of missing files. The Integrity Checker utility is designed to check for problems that cannot be detected by the logging and tracing mechanisms.

The Integrity Checker:

- Generates the files required as the benchmark for a future integrity check.

These files are created as part of the installation process and are tailored to each installation type. These files enable the Integrity Checker to be used to validate that all the installation files exist, are in the correct location, have the correct file permissions set and are complete.

- Uses the OVBPI configuration files to detail the current OVBPI configuration, when required. For example, the Integrity Checker can:
 - Confirm port numbers that are currently configured for use
 - Validate that the OpenView Operations host is available

- Validate the OVIS Management Server host name
- Validate that the OVIS host is available
- Validate that the OVSD host is available
- Validate that all the database tables required by OVBPI have been created successfully; for example, functions, indexes and tables.
- Makes available the version numbers of all the OVBPI component JAR files (from the implementation version field from within the file). This does not include the third-party JAR files.
- Checks that OVBPI can connect to its database, and that all the database tables exist.
- Determines the version of J2SE (Java Virtual Machine) installed on the machine where OVBPI is running.

Running the Integrity Checker

If the log and tracing files seem to be providing misleading information, or you want to check the status of your OVBPI system for other reasons, you can run the Integrity Checker as follows:

1. On the machine where you have installed the OVBPI Server, change directory to:

```
OVBPi-install-dir\lbin\bia
```

2. Execute the following file:

```
integritychecker.bat (Windows)
```

```
./integritychecker.sh (HP-UX)
```

3. Examine the contents of the report file generated by the Integrity Checker. This file is located as follows:

```
OVBPi-install-dir/data/log
```

The file name is in the form `integrity_report_systemtime` and has a `.TXT` file extension. `systemtime` is the system time, which makes the file name unique.

Errors generated by the Integrity Checker, if it fails to run, are written to `stderr`.

Check the errors in the log file generated by the Integrity Checker and then find the problem statement in this chapter and follow the instructions to recover from the error.

The Integrity Checker is also run as part of the Self-Healing Services, which are described in more detail in the *OpenView Business Process Insight Installation Guide*.

Integrity Report

The Integrity Checker creates a log file, which reports on information about the status of the OVBPI system and configuration. The Integrity Checker reports on:

- files that have incorrect checksums

Following a new installation, the Integrity Checker calculates a checksum value for all the files installed. When you run the Integrity Checker, it re-evaluates these checksums and reports the files where the checksums are different.

There might be valid reasons why the checksums have changed, in which case you can ignore the problem, for example, you might have modified the content of one or more files. However, if you do not know why the checksum is different, refer to [Chapter 10, Files and System Problems](#).

- Java environment

The Integrity Checker checks the version numbers for the J2SE installed on your system to ensure that it is compatible with the OVBPI requirements.

If the Integrity Checker reports an error with the Java environment, you should correct the error before using OVBPI. Refer to the *OpenView Business Process Insight Installation Guide* for details of the correct version of J2SE required for OVBPI.

- OVO and OVIS integration details

The Integrity Checker confirms that it is possible to connect to the OpenView Operations and the OpenView Internet Services hosts that are currently configured for the OVBPI Server. If it is not possible to connect to either of them, OVBPI is unable to receive operational events from the OpenView Operations system.

The Integrity Checker is not able to confirm that the OVO configuration is valid, it can check only that OVBPI can communicate with the OVO through the adapter.

- master configuration properties

The configuration options presented through the OVBPI Administration Console are held in a file called `masterconfig.properties`. The property values in this file are the properties currently being used by the OVBPI system. The Integrity Checker reports on the current values being used by OVBPI, so you can confirm that the values are as you expect.

If the values are not as you expect, you need to modify them using the OVBPI Administration Console.

If `masterconfig.properties` has been deleted, the Integrity Checker returns an error on the command line.

- installed jar files

OVBPI has a number of jar files and the Integrity Checker reports on the implementation version of these files. This implementation version shows whether or not patches have been applied to OVBPI.

- port numbers

All OVBPI port numbers need to be within the range of a number greater than zero (0) or a number less than 65535. The Integrity Checker reports on the port numbers and informs you if any are out of this range.

If the Integrity Checker reports that the port numbers are not valid, you need to change them as described in the *OpenView Business Process Insight System Administration Guide*.

Using the Business Process Dashboard for Problem Solving

If you have developed a customized copy of the Business Process Dashboard, you can use the installed Dashboard to validate unexpected results from the customized Dashboard.

You can also use the installed Business Process Dashboard to check your OVBPI instances and their status. You can use it to see if the flow is progressing as expected, in particular to identify if Events are being received out of sequence.

2 Problems Installing and Removing OVBPI Components

This chapter describes problems that you might encounter when installing OVBPI components. The chapter covers the following topics:

- [OVBPI Server and Modeler, or Server Only Installation Problems](#) on page 18.
- [Removing OVBPI Windows Services](#) on page 22
- [OVO Adapter for Windows Installation Problems](#) on page 23
- [Licensing Problems](#) on page 24
- [Error Creating Database for Microsoft SQL Server](#) on page 26

If the problem you are experiencing is not covered in this chapter, use the Integrity Checker to analyze your system. It might be that you have the incorrect version of a prerequisite component, for example, the J2SE. The Integrity Checker also reports on missing files, which can cause an installation failure. Using the Integrity Checker is described in section [Using the Integrity Checker for Problem Solving](#) on page 13.

OVBPI Server and Modeler, or Server Only Installation Problems

The following sections describe problems that can occur during the OVBPI Server installation and provide recovery scenarios where possible.

- Error creating SQL Server Database during installation; see section [Error Creating Microsoft SQL Server Database on Installation](#) on page 19.
- Installation fails during database creation; see section [Recovering a Failed Installation During Database Creation Phase](#) on page 20.
- Database connection problems as follows:
 - Port number inconsistencies
Check that the port number that you quoted for the database during the installation process is correct. If it is not, re-run the installation with the correct port number.
 - Database not started
It is possible that the database server has been shut down for some reason. Check with your database administrator, and if the database is not running, ask them to restart it.
 - OVBPI database user permission problems, which mean the OVBPI database tables cannot be created at installation; see section [Database User Permission and Quota Errors](#) on page 21.
 - OVBPI database user quota problems when using an Oracle Server. Quota problems prevent database tables being created at installation; see section [Database User Permission and Quota Errors](#) on page 21.
 - Database login problems, where you have entered incorrect credentials for an OVBPI database user or the user that has privileges to create other users.
 - Network problems, in cases where the OVBPI Server is connecting to a database that is installed on a different machine.

- Database setup problems as follows:
 - Problems creating the OVBPI database tables.

This could be due to database user permission or quota problems; see section [Database User Permission and Quota Errors](#) on page 21.
 - Database tables from a previous installation not deleted cleanly; see section [Error Creating Microsoft SQL Server Database on Installation](#) on page 19.

You can also find information about database problems that you can experience in [Chapter 9, Problems When Creating Data in the OVBPI Database](#).
- Unexpected behavior when installing on machines where the language settings are not English; see [Regional Settings for Windows](#) on page 103.

Error Creating Microsoft SQL Server Database on Installation

If you receive an error message indicating that the installation is unable to create the database because *OvbpiSchema.mdf* files are still present, it might be due to SQL Server having an inconsistent view of OVBPI database files.

If this is the first time you have installed OVBPI, this is not the problem with your installation. You see this problem only if you have previously installed, and subsequently removed OVBPI from the machine where you are attempting to reinstall.

If you have removed OVBPI and selected to delete the database tables, there might be OVBPI-related database files still present on your machine that need to be removed before you can continue.

If the OVBPI installation reports that .mdf files are still present check the following:

1. Use SQL Server Enterprise Manager to check if the OVBPI database exists.

If the database exists within Enterprise Manager, you do not have a problem with inconsistencies.

If the database does not exist within Enterprise Manager, you might have a problem with spurious .mdf files.

2. Check whether the *OvbpiSchema.mdf* and the *OvbpiSchema_log.LDF* files are present. *OvbpiSchema* is the default name given to the OVBPI database during installation. By default, these files are located at:

```
sql-server-install\MSSQL\Data
```

where *sql-server-install* is the installation directory for Microsoft SQL Server.

If the files exist, and the database file is not present within Enterprise Manager, your SQL Server installation has an inconsistent view of whether the OVBPI database is present or not, which needs to be corrected.

3. Delete the .mdf files relating to OVBPI and restart the installation.



You need to stop and restart the Microsoft SQL Server database services in order to delete these files as SQL Server locks the files, and therefore prevents you from deleting them.

If this does not solve your problem, there could be database files left from a previous installation of OVBPI. These database files cannot be used and need to be moved or deleted and the installation can then be restarted; see also section [Recovering a Failed Installation During Database Creation Phase](#) on page 20.

Recovering a Failed Installation During Database Creation Phase

If your OVBPI installation fails during the database creation phase, you need to resolve the problem that caused the failure and then restart the installation. An example of why the database creation phase of the installation might fail is because there is insufficient disk space for the installation.

If you are installing OVBPI for the first time, when you have resolved the problem, you can restart the installation. The installer asks whether you want to delete and recreate all the database functions (tables, stored procedures and so on) and then completes the installation.

If you are upgrading from a previous version of OVBPI, when you have resolved the problem, you can restart the upgrade. The upgrade procedure works out how much of the database migration process is still to be completed and continues with the migration from the point where the failure occurred.

Database User Permission and Quota Errors

If you have created the database user manually, rather than through the OVBPI installation procedure, it is possible that the user has not been created with sufficient privileges or quota to create the OVBPI database tables.

Check the following log file to make sure that the 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 reinstall OVBPI and the installer continues as described in section [Recovering a Failed Installation During Database Creation Phase](#) on page 20.

The *OpenView Business Process Insight Installation Guide* describes the permissions required for the database user for both Microsoft SQL Server and for Oracle Server, and the quotas required for the database user for the Oracle Server.

Removing OVBPI Windows Services

The OVBPI uninstall program should delete all OVBPI Windows Services as part of the uninstall process. However, if you do not shut down all the OVBPI Server components before starting the uninstall process, some OVBPI Windows Services might not be deleted. If this is the case, any attempt to reinstall OVBPI fails.

To solve this problem, you need to delete the Windows Services manually, using the Windows `sc` (Service Control) command.

For Windows XP and Windows 2003, the `sc` command is available as part of your operating system. For Windows 2000, you need to obtain the Windows 2000 Resource Kit to obtain the Service Control utility.

To delete the unwanted OVBPI Windows Services, complete the following steps:

1. Make sure all the OVBPI Windows Services are stopped.

All the OVBPI Windows Services have `OVBP` at the start of their name, and a complete list can be found in the *OpenView Business Process Insight Installation Guide*. Use the Control Panel, or the `net stop` command to stop these Windows Services.

2. When all the OVBPI Windows Services are stopped, open a Command Window on the machine where the OVBPI Windows Services are defined.
3. Enter the following command:

```
sc delete ServiceName
```

where *ServiceName* is the name of the OVBPI Windows Service that you want to delete.

This command deletes the specified service subkey from the Windows Registry. If the service is running or if another process has an open handle to the service, then the service is marked for deletion until the handle is released, when the service can then be deleted.

OVO Adapter for Windows Installation Problems

The following section describes a problem that you might encounter when installing the OVBPI OVO Adapter on Windows.

OVO Adapter Error When Starting the Adapter Following a New Installation

If you receive the following error message when you attempt to start the OVO Adapter following a new installation, it is because the .NET Framework is not installed:

```
OVOWOpvcsvterm.exe:  
The application failed to initialize properly.
```

You can dismiss the error dialog and the OVO Adapter appears to start; however, the OVO Adapter cannot operate unless the .NET Framework is installed.

Note that you do not receive an error message in the OVSN Adapter log file indicating this failure.

To recover from this error, complete the following steps:

1. Stop the OVO Adapter.
2. Install the .NET Framework.

Check the *OpenView Business Process Insight Installation Guide* for the version of the .NET Framework and any other prerequisite software required by the OVO Adapter.

3. Restart the OVO Adapter.

Licensing Problems

The following are licensing problems that you might experience with OVBPI:

- [Failed to Update License Registry Settings](#) on page 24
- [License Errors Reported From OVBPI](#) on page 24

Failed to Update License Registry Settings

If the OVBPI installation is unable to proceed, or fails, with an error similar to the following, it is due to a problem with the License Manager (HP Autopass):

Licensing Install Failure - Failed to update Licensing Registry Settings

The License Manager software is installed with OpenView products, including OVBPI.

This error could be due to an incomplete, or a corrupt, installation. The problem with the Licensing Manager must be resolved before the OVBPI installation can continue.

Contact your support organization as described in section [Support](#) on page 4 to identify the problems with the License Manager installation.

License Errors Reported From OVBPI

If you are receiving errors such as the following, it could be because you have not used the correct information when requesting your license key:

- From the Administration Console, you receive an error stating that your temporary license for HP OpenView Business Process Insight has expired.
- From the Dashboard you receive an error stating that the OVBPI Server is invalid.

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
```

If you have not supplied a short node name when requesting your license key, you need to contact the support organization in order to request a revised license key.

Error Creating Database for Microsoft SQL Server

If you are using a Microsoft SQL Server database and you receive the following error during the OVBPI installation, it is because the database instance that you are attempting to use is configured to be case sensitive.

```
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.
```

It is possible to create instances of the SQL Server database that are case insensitive or case sensitive; however, OVBPI does not operate with a database that is case sensitive. If you attempt to install OVBPI using a case sensitive database instance, the installation fails and reports an error.

If OVBPI creates the database instance as part of the installation process, it creates it with the Server Collation set to Case Insensitive. If you are creating the database instance for OVBPI data, you must also create the instance with the Server Collation set to Case Insensitive.

If you receive this error, you need to:

- Create an instance of the database that has the Server Collation set to be case insensitive.
- Allow the OVBPI installer to create an instance of the database, in which case, the installer creates the database with the correct settings.

3 Problems Starting and Stopping Your OVBPI Components

This chapter covers the problems that you might find when starting and stopping your OVBPI components. The chapter covers the following topics:

- [OVBPI Administration Console Startup](#) on page 28
- [Engine Startup](#) on page 29.
- [Modeler Startup](#) on page 32.
- [OVBPI Web Client Startup Problems](#) on page 37.
- [Problems Stopping the Business Event Handler](#) on page 43

OVBPI Administration Console Startup

There are a number of reasons why the OVBPI Administration Console fails to start, for example, where any of the following files are missing:

- masterconfig.properties
- bia-common.jar
- bia-admin.jar

Use the Installation Integrity Checker to check the status of your OVBPI Server system. The Installation Integrity Checker is described in [Using the Integrity Checker for Problem Solving](#) on page 13.

When you have identified which files are missing, or possibly corrupt, you can recover the files from a backup copy if you have one. If you do not have a backup copy of the file, or if there are a significant number of files missing, you are advised to reinstall the OVBPI Server as described in the *OpenView Business Process Insight Installation Guide*. Do not make any changes to the OVBPI configuration as part of this reinstallation; you are reinstalling only to update the installed files.



If you have made changes to any component configuration files directly, not using the OVBPI Administration Console, these changes are overwritten by the reinstallation process. If you want to preserve these changes, copy the modified files to another location before starting the installation and reapply the changes when the installation is complete. Database data files can be recovered from a backup copy. Refer to the *OpenView Business Process Insight System Administration Guide* for more information about backup and recovery.

If you have made any changes to the Business Process Dashboard, these changes are preserved in the following directory:

```
OVBPI-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\  
ovbpidashboard.bak.n
```

You need to reinstate any changes that you have made back to the Business Process Dashboard directory from the backup.

Engine Startup

There are a number of reasons why the Business Impact Engine can fail to start:

- J2SE not installed, or not on the system path.
- Port number clash.
- Corrupt or missing files.
- Cannot connect to database.

J2SE Not Installed

If you are unable to start the Business Impact Engine and there is no information in the Engine log file that helps determine what the problem is, check that you have the correct version of the J2SE installed on the system where the Engine is running. You also need to check that you have added the location of the J2SE to the system Path environment variable.

Refer to the *OpenView Business Process Insight Installation Guide* for details of the correct version of the J2SE.

Port Number Clash

It is possible that the RMI port number that the Business Impact Engine is requesting for startup is already allocated. In this case, the OVBPI Server port number clash prevents the components starting up. All OVBPI port numbers need to be within the range of a number greater than zero (0) or a number less than 65535. The OVBPI Administration Console checks that the port numbers entered are within this range. You can also use the Installation Integrity Checker to report on the port numbers that are being used by your OVBPI system (see section [Using the Integrity Checker for Problem Solving](#) on page 13).

In addition, the port numbers must be unique on the system where OVBPI is running. It is possible that the port numbers assigned to one or more of the OVBPI components has already been taken by another component running on the system. You can check if the port numbers are already in use using the following command from a Command Prompt dialog:

```
netstat -a
```

When changing the port number you need to make sure that you stop all the OVBPI components, exit from the OVBPI Administration Console and then restart the Administration Console and the OVBPI components, otherwise, the new port number is not used when making new connections.

If you continue to see a problem with port numbers, try setting them to a high number for example, above 10,000.

Corrupt or Missing Files

It is possible that your OVBPI files are corrupt or have been inadvertently deleted. You can run the Integrity Checker to check the status of your system; see [Using the Integrity Checker for Problem Solving](#) on page 13 for details of using the Integrity Checker. However, if a number of files are corrupt or have been deleted, then the Integrity Checker might also be impacted and therefore unable to run.

If you suspect that this could be a problem, following the instructions to reinstall the OVBPI components as described in the *OpenView Business Process Insight Installation Guide*.



If you have made changes to any component configuration files directly and not using the OVBPI Administration Console, these changes are overwritten by the reinstallation process. If you want to preserve these changes, copy the modified files to another location before starting the installation and reapply the changes when the installation is complete.

If you have made any changes to the Business Process Dashboard, these changes are preserved in the following directory:

```
OVBPi-install-dir\nonOV\jakarta-tomcat-5.0.19\webapps\  
ovbpidashboard.bak.n
```

You need to reinstate any changes that you have made back to the Business Process Dashboard directory from the backup.

Cannot Connect to Database

If the Business Impact Engine cannot connect to the database, it does not start. Check the Business Impact Engine log file for errors indicating a possible connection failure. The error should provide more information about the reason for the failure.

In the case of a failure to connect to the database, you can also:

- check that the database services are running and restart them if necessary.
- check that the database password has not been changed. If it has, you can re-synchronize the database login password used by OVBPI through the OVBPI Administration Console.

Modeler Startup

The OVBPI Modeler needs to connect to the Model Repository when it starts, in order to access the Flow, Data, Event and Service definitions. It also requests login credentials, which are controlled using either Select Access or the Servlet Engine.

Unable to Login to Modeler

When you start the Modeler, you are asked for login credentials. If you are unable to login, it might be because the login credentials have changed, or are incorrectly configured.

Details of how to configure the security settings for all of the OVBPI components is described in the *OpenView Business Process Insight System Administration Guide*.

There are two security mechanisms that you can be using:

- Select Access

You need to check that you have configured Select Access correctly. Configuring Select Access is described in the *OpenView Business Process Insight System Administration Guide*.

- Servlet Engine

In the case of the Servlet Engine, check that you are using the correct User Name and Password for the Modeler (or Model Repository). The names and passwords are held in the following Servlet Engine XML configuration file:

```
OVBPI-install-dir/nonOV/jakarta-tomcat-5.0.19/conf/  
tomcat-users.xml
```

This file defines the credentials for the roles, or users, for OVBPI; refer to the *OpenView Business Process Insight System Administration Guide* for more information about this file.

Access Denied Errors from Select Access

The following are examples of the errors that you might encounter when using Select Access and possible reasons for them being displayed.

Example 1

```
Access Denied to Model Repository
Unable to authorize user credentials.
Ensure that Select Access components are properly configured and
currently running
```

This error is shown when OVBPI is unable to access Select Access for information, possibly because one or more of the Select Access components is not available. In particular, check whether the Select Access Validator is configured and running.

Example 2

```
Access Denied
```

There are a number of reasons why you might encounter an Access Denied error:

1. The hostname and port number information added to the Select Access Resource Server for OVBPI components are incorrect. Check the Select Access Resource Server configuration and correct the details if necessary; see also the *OpenView Business Process Insight Administration Guide* for information about the information needed to configure the Resource Server.
2. The entry for the Model Repository resource in the Select Access Policy Builder is missing, or is incorrect. In particular, check the spelling of the `OVBPIModelRepository` resource entry.
3. The User Identity that identifies the person that you have configured to have access to the Modeler does not have the appropriate authorization set within Select Access. Check that there is a tick at the intersection of the Identity and the appropriate Model Repository resource.
4. The Select Access Validator has been upgraded, or reinstalled. In this case, you need to start the Select Access Setup Tool and rerun the Servlet Enforcer setup to ensure that the Servlet Enforcer is synchronized with the Validator.

Login Error When Using Servlet Engine

The following is an error that you might receive from the Servlet Engine authentication and why you might receive it.

```
Unable to contact the Model Repository using the login details
provided
The username or password are incorrect
```

This error is shown when OVBPI is unable to authenticate with the Servlet Engine using the username and password supplied. Check that the username and password are correct in the Servlet Engine configuration file (`tomcat-users.xml`).

Modeler Cannot Access Model Repository

If the Modeler startup fails with an error message similar to the following, there are a number of possible reasons for the failure:

```
The modeler cannot access the Model Repository Server on host
hostname at port port-no
```

This failure could be due to one of the following:

- [Model Repository Not Started](#) on page 34.
- [Invalid Hostname for OVBPI Server](#) on page 35.
- [Invalid Port Number for OVBPI Server](#) on page 35.
- [Network or Security Software Blocking Connection](#) on page 35.
- [Windows Hosts File Does Not Have System Static IP Address Defined](#) on page 36.

Model Repository Not Started

Use the OVBPI Administration Console to check that the Model Repository is started. If you have recently started all the OVBPI components, you might need to check the Model Repository log file for the following message to confirm that it has started, and is not still in the process of starting up:

```
INFO: Repository Started
```

If the Model Repository is started, this error could be due to one of the other listed problems for Modeler startup problems.

Invalid Port Number for OVBPI Server

There are two port numbers that you can enter for your OVBPI Modeler connection to the OVBPI Server:

- Server Port Number

Use the OVBPI Administration Console to check the Port Number defined for the RMI Registry. This is the port number that needs to be specified on the OVBPI Modeler dialog.

- Client Port Number

This number needs to be valid within your organization and might need to fit into your organization's firewall policy.

Invalid Hostname for OVBPI Server

You need to specify the fully qualified hostname for the system where the OVBPI Server is installed on the OVBPI Modeler dialog. If the Modeler is installed on the same system as the OVBPI Server, you can specify `localhost` as the Hostname.

Network or Security Software Blocking Connection

It is possible that you have installed network or security software that is blocking the attempts by the Modeler to connect to the OVBPI Server using the specified port number.

Check whether you have personal firewall software or other similar software that prevents communication using specified port numbers; see also [Chapter 10, Files and System Problems](#).

Windows Hosts File Does Not Have System Static IP Address Defined

If you want to run OVBPI on a machine that is not connected to a network, you need to make sure that the Windows `hosts` file contains the appropriate information.

The `hosts` file needs to have `localhost` defined with the IP address of `127.0.0.1`. Additionally, if your machine has a static IP address, this IP address and the machine host name need to be defined in the `hosts` file.

Refer to the `hosts` file for details of how to define the entries in the `hosts` file. The host file is located in different locations on different systems, for example:

- `C:\WINNT\system32\drivers\etc\` (Windows 2000)
- `C:\WINDOWS\system32\drivers\etc\` (Windows XP)

OVBPI Web Client Startup Problems

OVBPI has the following Web Clients:

- Metric Definer
- Business Process Dashboard
- Repository Explorer
- Notification Server Administration Console
- Intervention Client

Following your first installation of OVBPI, all the Web clients, with the exception of the Business Process Dashboard, require username and password authentication in order to run. You can configure the Security settings for OVBPI and modify the settings for username and password for all components, including the Business Process Dashboard.

In order to link to one of the Web clients from a Web browser window, make sure that the Servlet Engine component has been started through the OVBPI Administration Console.

Web Client Login Failures

When you start the Web clients, you are asked for login credentials to connect to the OVBPI Server.

If you are unable to login, it might be because the login credentials have changed. Details of how to configure the security settings for the OVBPI components is described in the *OpenView Business Process Insight System Administration Guide*.

There are two security mechanisms that you can be using:

- Select Access

You need to check that you have configured Select Access correctly. Configuring Select Access is described in the *OpenView Business Process Insight System Administration Guide*.

- Servlet Engine

In the case of the Servlet Engine, check that you are using the correct User Name and Password for the OVBPI Web application that you are attempting to start. The names and passwords are held in the following Servlet Engine XML configuration file:

```
OVBPI-install-dir/nonOV/jakarta-tomcat-5.0.19/conf/  
tomcat-users.xml
```

This file defines the credentials for the roles, or users, for OVBPI; refer to the *OpenView Business Process Insight System Administration Guide* for more information about this file.

If you are using an alternative Tomcat authentication implementation method to ensure the security of your Web applications, you need to check that it allows the correct level of security for your Web client login account.

Access Denied Errors

The following are examples of the access denied errors that you might encounter and possible reasons for them being displayed.

Example 1:

```
Access Denied to OVBPI component  
Unable to authorize user credentials.  
Ensure that Select Access components are properly configured and  
currently running
```

where *OVBPI component* is the identifier for the Web client that you are attempting to log on to.

This error is shown when OVBPI is unable to access Select Access for information, possibly because one or more of the Select Access components is not available. In particular, check whether the Select Access Validator is configured and running.

Example 2:

Access Denied

There are a number of reasons why you might encounter this error:

1. The hostname and port number information added to the Select Access Resource Server for OVBPI components are incorrect.

Check the Select Access Resource Server configuration and correct the details if necessary; see also the *OpenView Business Process Insight Administration Guide* for information about the information needed to configure the Resource Server. If you are using HTTPS, you also need to make sure that there are entries the HTTPS protocols in addition to the HTTP protocols within the Select Access Resource Tree.

2. The entry for the Web client resource in the Select Access Policy Builder is missing, or is incorrect.

Check the spelling of the resource entry. The OVBPI resources and how they should be referenced in Select Access is provided in the *OpenView Business Process Insight Administration Guide*.

3. The User Identity that identifies the person that you want to have access to the Web client does not have the appropriate authorization set within Select Access.

Check that there is a tick at the intersection of the Identity and the appropriate Web client resource.

4. The Select Access Validator has been upgraded, or reinstalled.

In this case, you need to run the Select Access Setup Tool and rerun the Servlet Enforcer setup to ensure that the Servlet Enforcer is synchronized with the Validator.

Example 3

HTTP Status 403 - Access to the requested resource has been denied

If you are using Servlet Engine authentication, you can encounter this error if the entries in the Servlet Engine configuration file are incorrect. Check that the `tomcat-users.xml` file contains the correct information, in particular:

1. check that the `tomcat-users.xml` file exists. This file is installed at the following location:

```
ovbpi-install-dir\nonOV\jakarta-tomcat-5.0.19\conf
```

2. check the content of the file and that it contains the credentials for all the OVBPI components. In particular, check for the Business Process Dashboard entries as these were new for OVBPI version 2.10. There is a post-migration task that explains how to update the Servlet Engine configuration file to add the new settings; see the *OpenView Business Process Insight Installation Guide* for more details.

Example 4

The page cannot be displayed

You receive this error when the Servlet Engine is not running or is not accessible on the machine where OVBPI is running:

- Check that the Servlet Engine is started on the machine where the OVBPI Server is running.
- If you have installed using the Dashboard Only option, check that the Servlet Engine is running on the machine where the Business Process Dashboard is installed.
- If you have installed OVBPI in a Microsoft Server Cluster, check that you are using the virtual host name for the Cluster and not the actual node names.

Select Access Single-Signon Registration Service Not Working

If the single-signon service for multiple domains that you have configured does not appear to work, it could be because you have not correctly configured the Servlet Enforcer Plugin.

Check that you have entered the correct domain name in the Cookie domain field on the Generic Enforcer Plugin Setup - Single DNS domain SSO dialog. This dialog is accessible when you run the Setup tool for the Enforcer Plugin.

Servlet Engine Login Credentials Ignored

If your login credentials are rejected and the empty login dialog is presented again, OVBPI is unable to authenticate with the Servlet Engine using the username and password supplied. Check that the username and password are correct in the Servlet Engine configuration file (`tomcat-users.xml`).

Certificate Errors on Login

If you are receiving Certificate errors when trying to start one of the OVBPI Web Clients, or you are not being prompted for a Certificate when you expect to be, it could be a problem with how you have set up HTTPS on the Servlet Engine or within Select Access.

Check the following are configured correctly:

- Certificate-based client authentication is enabled in the Administration Console. This parameter is available from the Security option.
- The appropriate Web clients are enabled for HTTP over SSL in the Administration Console. These parameters are available from the Security option.
- The Servlet Engine is configured for Server to client and client to Server HTTPS access. Refer to the *OpenView Business Process Insight Administration Guide* for details of configuring the Servlet Engine to send and receive HTTPS requests.
- If you are using Select Access to further refine your HTTPS access, make sure:
 - the Certificates have been entered in the LDAP server using DER encoding.
 - the LDAP identity entries in the LDAP server match the common name (cn), organization unit (ou), organization (o) and country (c) attributes supplied when the Certificate was requested and created.

Warning about Basic Authentication Without Secure Connection

If you are using Internet Explorer version 7.0 or later, and you receive the following warning, you need to consider setting HTTPS as the authentication method for your password-protected OVBPI Web applications:

Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).

This warning occurs as a result of the tighter security checking within Internet Explorer version 7.0, or later.

You can prevent this warning being displayed by configuring your password-protected OVBPI Web clients to use HTTPS instead of HTTP for their connections. Refer to the *OpenView Business Process Insight Administration Guide* (chapter on security) for details of how to configure your Web clients to use HTTPS.

Integrity Checker Fails to Run

It is possible that the configuration files for the Integrity Checker have been removed or are corrupt. In this case, the Integrity Checker fails to run.

The following are error messages that might indicate that the Integrity Checker validation files are missing or corrupt:

- System cannot locate file
`OVBPI-install-dir\misc\bia\ovbpi_install_type.xml` to use for validation

where `ovbpi_install_type` is the type of installation that you have completed on the system; for example, `bia_full_install_windows`, is the file name when you have completed a full installation on the system.
- Error parsing validation file ...

If this is the case, it is likely that other files in your OVBPI system have been removed or are also corrupt. Follow the instructions in the *OpenView Business Process Insight Installation Guide* to reinstall the OVBPI Server, including the Integrity Checker. Do not make any changes to the OVBPI configuration as part of the reinstallation. You are reinstalling only to update the installed files.



If you have made changes to any component configuration files directly and not using the OVBPI Administration Console, these changes are overwritten by the reinstallation process. If you want to preserve these changes, copy the files that you have modified to another location before starting the installation and reapply the changes when the installation is complete.

Problems Stopping the Business Event Handler

If you use the OVBPI Administration Console to stop all the OVBPI Server components, using the `Stop All` button, you might see the Business Event Handler takes some time to stop.

This occurs in situations where the Business Event Handler is sending events into the Business Impact Engine at the point where the Engine shuts down. As a result the Business Event Handler retries its connection, according to its configuration settings. This means the Business Event Handler can take some time to shut down and is expected behavior.

Problems Stopping the Engine

Occasionally the Business Impact Engine does not completely shut down when you use the `Stop` command in the OVBPI Administration Console.

If this is the case, select the `Stop` command for the Business Impact Engine again, and the Engine shuts down.

4 Problems with Performance

This chapter describes specific problems with performance that you might experience using your OVBPI system. The chapter covers the following topics:

- [OVBPI Server Performance](#) on page 46
- [Modeler Performance](#) on page 50
- [Administration Console Delays when Applying Changes](#) on page 51

OVBPI Server Performance

The following sections describe possible reasons why your OVBPI system is not responding as expected:

- [Incorrectly Configured Database Parameters](#) on page 46
- [Optimizing Use of Your Oracle Database Server](#) on page 47
- [Build Up of Completed Flow Instances](#) on page 48
- [Excessive Numbers of Notifications Generated](#) on page 48

Incorrectly Configured Database Parameters

If your OVBPI system is not responding as you would expect, it could be due to incorrectly configured database parameters.

To determine whether there are any specific errors in the database configuration, check the following log file:

```
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.

Other possible reasons why your database configuration might have an effect on performance are:

- Incorrect quotas for the *username_TS* and *INDX* tables in the database. The *OpenView Business Process Insight Installation Guide* provides details of the quotas required for these tables.
- There are insufficient cursors available for the database; see section [Oracle Cursor Setting](#) on page 77.
- The Oracle or Microsoft SQL Server database data files are configured to grow automatically, which can have a detrimental effect on database performance if your database size is constantly growing. Refer to the *OpenView Business Process Insight Installation Guide* for details of how to set up the Oracle and Microsoft SQL Server user accounts.

If you need more advice on improving performance, contact your local support representative, or visit the HP OpenView Web site for additional information.

Optimizing Use of Your Oracle Database Server

The following are possible reasons why your Oracle Server might not be optimally configured for OVBPI:

- The Oracle Server Redo log file size is set too low.
- The Oracle Server is not using the right optimizer for its queries.

Redo Logs

The Oracle Redo log files should be set to at least 50MB to reduce the frequency at which new Redo logs are switched, which results in costly database `CHECKPOINT` activities. Refer to your Oracle Server documentation for details of how to increase the size of the Redo log file.

Query Optimizer

You might be experiencing performance problems with your OVBPI system because your Oracle Server is not correctly optimized for OVBPI-specific queries.

To help the Oracle Server choose the correct plan for the OVBPI queries, you are strongly advised to enable the Cost-based Optimizer (CBO) by gathering OVBPI table statistics. Use the Oracle tools to analyze your system as described in your Oracle Server documentation.

You must ensure that the OVBPI statistics that you gather are representative of the current data in the OVBPI database tables. To do this, you must gather the statistics when OVBPI has been operational for a period and the data in the database tables is representative of normal operations. You should gather statistics at regular, and frequent, intervals following this point.

Build Up of Completed Flow Instances

If you find that the performance of your OVBPI Server system deteriorates over time, this could be due to the build up of completed flow instance data or metric instance data in the database. Business metric statistics data can also build up in your database, particularly if you have set a low `Collection Interval`.

The *OpenView Business Process Insight System Administration Guide* describes how you can use the Instance Cleaner parameters to delete and archive flow and metric data from the database at different intervals according to your implementation requirements.



If you select the option to delete completed flow as soon as the instance has completed, you do not have completed instance data to view through the Business Process Dashboard. In this case, you might be experiencing the problem described in section [Chapter 5, Problems Using the OVBPI Clients](#). This might also result in Active instances that have no parent. In this case you can use the Engine Instance Cleaner to remove these Active instances.

Out of Memory Errors in Metric Definer Log File

If see messages related to shortage of memory in the Metric Definer log files when the Metric Definer is started, it could be due to the fact that large numbers of metric statistics are being generated on your Business Flows. In particular, check for metric statistics that are generated on Business Flows that have been superseded. This is because when you delete Business Metrics for a flow, it does not automatically delete the Business Metrics for the superseded versions of the same Business Flow. The metric statistics for the superseded flows are still being generated and accumulating in the database.

You need to separately delete the Business Metrics for superseded flows.

Excessive Numbers of Notifications Generated

If you have a significant failure in your business, for example, an application becomes unavailable, you can end up in the situation where thousands of thresholds are violated. This can result in large numbers (or a storm) of notifications being generated.

If you receive excessively large numbers of notifications relating to threshold violations, you can modify the Metric Engine configuration parameters to provide summary information in order to reduce the number of individual messages that are delivered.

These Metric Engine Threshold settings enable you to control the number of, and frequency at which, notifications are sent out when metric threshold violations occur.

Refer to the *OpenView Business Process Insight Administration Guide* for details of the Metric Engine Threshold Alert Notification Settings that you can modify.

Modeler Performance

If you notice that the OVBPI Modeler starts to respond more slowly when you are using it, it could be because you have a large number of editors open for your Flow definitions. You can see how many Flow editors that you have open from the `Window` menu option and the Status Bar. If there are more than 10 Flow editors open, try closing those editors that you are not using. This should improve the Modeler's performance.

Administration Console Delays when Applying Changes

If the Administration Console is taking a significant amount of time to respond when you are making changes to configuration parameters, it could be because you have too many copies of the Dashboard.

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 whether this is a new installation, an over-installation or an upgrade. This is because the files are renamed each time you reinstall OVBPI in order to preserve changes. You need to identify the current `.war` files and any versions of the files that you have customized and then delete those that are no longer required.

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.

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.

Deleting these files also has an impact on the length of time the re-installation procedure takes to run.

5 Problems Using the OVBPI Clients

This chapter describes problems encountered through the following OVBPI clients:

- [Modeler](#)
- [Business Process Dashboard](#)
- [Notification Server Administration Console](#)

The chapter covers the following topics:

- [Problems Deploying a Flow on page 54](#)
- [Problems Importing a Definition in the Modeler on page 56](#)
- [Problems Using the Business Process Dashboard on page 57](#)
- [Problems With the Notification Server on page 62](#)

Problems Deploying a Flow

The following sections cover problems that you might encounter when attempting to deploy a flow:

- [Code Too Large](#) on page 54
- [Compilation Errors for Data Definition](#) on page 54

Code Too Large

If you are trying to deploy a Flow, the deployment is failing and you see the following error message in the Model Repository log file, it could be because you are attempting to deploy a Data definition that has a Subscription with too many assignments:

```
code too large for try statement  
catch (Expression.ExpressionException e)
```

Do not exceed 350 assignments in all the subscriptions for a particular Data definition, or the definition cannot deploy successfully. For example, if the Data definition subscribes to one event, do not exceed 350 assignments. If the Data definition subscribes to ten events, do not exceed 350 assignments across the ten event subscriptions.

Compilation Errors for Data Definition

If the OVBPI Modeler returns a compilation error for the Data definition you are attempting to deploy, it could be because you are using reserved words as property names.

Your database has a number of reserved words. In the case of Oracle, these include: ALTER, CREATE and ORDER. The full list of reserved words can be found in your database documentation.

If you use a reserved word, OVBPI modifies the name by adding an underscore (`_`) to the end of the name when processing it. OVBPI does not modify the user presentation of the name. If you subsequently create a property with the same name that also ends in an underscore (`_`), there is an internal name clash and the deployment fails with compilation errors.

As an example, if you create a property with the name ORDER, OVBPI adds an underscore the name as follows: ORDER_. If you then create a property with the name ORDER_, OVBPI reports a compilation error when you try and deploy the definition as it clashes with an existing definition.

To avoid this problem, do not use words that are reserved for use by your database.

Problems Importing a Definition in the Modeler

The following sections describe problems that you might encounter when attempting to import a definition into the OVBPI Modeler:

- [Import Option within the OVBPI Modeler Does not Display Characters Correctly](#) on page 56
- [Metric Ignored by Modeler](#) on page 56

Import Option within the OVBPI Modeler Does not Display Characters Correctly

If you are experiencing problems importing definitions into the OVBPI Modeler, it could be due to the regional and language settings on your system. [Regional Settings for Windows](#) on page 103 describes how to set the regional and language settings for your implementation.

Metric Ignored by Modeler

For OVBPI versions 02.00 and later, the Modeler no longer manages metrics. As a result, if you try to import a previously exported flow, which includes a metric, the Modeler ignores it.

Specifically, if you export a business flow using the Modeler provided with OVBPI version 01.01, and the definition includes one or more metric definitions, you cannot then import the business process metric (or metrics) into your OVBPI version 02.10 Modeler.

This is because the metric definitions have been moved from the OVBPI Modeler into the Metric definer, and the Modeler has no knowledge of them.

When you upgrade your OVBPI system, from OVBPI versions prior to version 02.00 to version 02.00, or later, all your business flows and business process metrics are migrated and your business process metrics are then configurable through the Metric definer.



Business flows that have been exported, cannot be migrated when they are imported into your OVBPI 02.10 system; in this case, all your business process metrics have to be redefined using the OVBPI 02.10 Metric definer. The remainder of the business flow is imported without a problem.

Problems Using the Business Process Dashboard

The following are problems that can occur when using the Business Process Dashboard:

- the Business Process Dashboard does not display the flows that you have configured it to display; see section [Flows Accessible Through Dashboard are Not as Expected](#) on page 58.
- unable to login to the Business Process Dashboard; see section [Web Client Login Failures](#) on page 37.
- no data is available for reporting through the Business Process Dashboard
This could be because the database had been stopped for some reason. Check why the database has been stopped and request that it is restarted. Section [No Data Available for Reporting](#) on page 58 describes other reasons why the Dashboard might not have data available for reporting.
- there are a large number of completed instances in the database, which can have a severe impact on Business Process Dashboard performance; see [Chapter 7, Problems with Flows and Business Events](#).
- OVSD incident report and service call information is not available through the Dashboard.

This could be because there are problems with the configuration between OVBPI and OVSD; refer to section [OVSD Data Not Presented Through Dashboard](#) on page 59.

- OVIS and OVO data is not available through the Dashboard.
This could be because there are problems with the configuration between OVBPI and OVIS or OVO. Check that the configuration is correct. The configuration parameters for OVIS and OVO interoperability are described in the *OpenView Business Process Insight Reference Guide*.
- Dashboard stops responding and appears to be inactive; see section [Dashboard Stops Responding](#) on page 60.
- You are presented with a login dialog and do not know the credentials for logging into the Business Process Dashboard; see section [Unable to Logon to the Business Process Dashboard](#) on page 60.

Flows Accessible Through Dashboard are Not as Expected

If you are using Select Access to control the access to individual flows and whether or not they are accessible through the Business Process Dashboard, you need to check that you have configured Select Access and OVBPI correctly.

You create a `Flow` resource in the Select Access Resources Tree to manage the flows that are shown through the Business Process Dashboard.

If you deny a user access to the `Flow` resource, the Business Process Dashboard does not present any Business Flows, unless you explicitly add the flows (by name) to the Resources Tree under the `Flows` resource and then enable access to each flow for each user.

If you give full access to the `Flows` resource, all Business Flows are presented through the Business Process Dashboard, unless you explicitly add the flows (by name) to the Resources Tree under the `Flows` resource and then deny the user access to each flow.

You also need to make sure that the Business Process Dashboard is configured for Select Access security within the Administration Console and that the OVBPI components have been stopped and restarted following any configuration change.

Refer to the *OpenView Business Process Insight Administration Guide* for details of configuring Select Access for your implementation.

No Data Available for Reporting

If you start the Business Process Dashboard and there is no data to view, it is possible that you have set the Engine Instance Cleaner parameters to delete completed flow instances as soon as they have completed. In this case, there is no (or minimal) historical information available to view through the Business Process Dashboard.

If this is the case, you should modify the values that you have set for the Engine Instance Cleaner parameters as described in the *OpenView Business Process Insight System Administration Guide*.

OVSD Data Not Presented Through Dashboard

If you have configured OVBPI to access OVSD, but you are not seeing OVSD incident reports through the Dashboard for either OVO services or OVIS services, check the following:

- that the OVBPI and OVSD configuration is correctly set up.
- that there are no network problems between the system where OVBPI is installed and the system where OVSD is installed.
- that the OVSD application server is running.

Integration Type - Automatic

If you have configured OVBPI integration type to be `Automatic` when inter-operating with OVSD, you need to make sure that:

- OVO services are imported from OVO into OVSD
- OVIS SLAs are exported from OVIS into OVSD

If one or both of these is not the case, the incident reports associated with these services cannot be shown through OVBPI. This is because OVBPI expects the name of the service to be defined in a specific way within OVSD when obtaining information from OVSD. Specifically, OVBPI expects OVIS services to be defined in the `SN Name` field on the `Service` option from the `New` menu as follows:

`CustomerName/ServiceItemName_ProbeType`

where:

- `CustomerName` is one of the `Receiver Organizations` defined for a `Service Desk SLA`.
- `ServiceItemName` is the name of the `Service Item` that contains the `SLA`.
- `ProbeType` is the `probe type` of the `OVIS metric`.

This is the naming scheme used when an OVIS service is created within OVSD and subsequently exported to OVBPI.

In the case of OVO services, the OVO Service Name must be configured within OVSD. Be aware that it is the OVO Service Label that is displayed within the OVBPI Modeler and not the Service Name. However, the Service Name can be identified from the Description field for the Service within the OVBPI Modeler, or through OVO.

The Description field of the Modeler has the following format:

```
OVO: ServiceLabelName;ServiceDescription
```

The ServiceLabelName portion of the Description field needs to be specified within OVSD in the SN Name field on the Service option from the New menu.

This is the naming scheme used when an OVO service is imported from OVO.

Integration Type - Custom Only

If you have configured OVBPI integration type to be Custom Only when interoperating with OVSD, you need to check that the custom fields have been set up correctly within OVSD. Refer to the *OpenView Business Process Insight Reference Guide* for details of how to set up custom fields within OVSD.

Dashboard Stops Responding

If the Dashboard appears to be inactive and has stopped responding, it could be a problem with the number of connections that have been opened in order to access data in the database. This problem occurs only if you have customized the Dashboard and are using DBConnection.

You can experience this problem when you use DBConnection to connect to the database and do not release the database connection on the same page as the connection is opened. Refer to the *OpenView Business Process Insight Integration Training Guide - Customizing the Business Process Dashboard* for details of using the DBConnection bean.

Unable to Logon to the Business Process Dashboard

If the Dashboard unexpectedly requires you to login, it could be because it has been configured to request authorization. Contact the person responsible for managing your OVBPI system and find out the user name and password

requirements for the Business Process Dashboard. For other problems relating to logging on to the Business Process Dashboard see also section [Problems Using the Business Process Dashboard](#) on page 57.

The Business Process Dashboard authorization can be configured to use the Servlet Engine authentication, or HP OpenView Select Access authorization.

Problems With the Notification Server

The following section describes the problems that you might encounter when using the Notification Server:

- [Velocity Template Not Recognized by OVBPI](#) on page 62
- [Problems with Email Notifications](#) on page 62

Velocity Template Not Recognized by OVBPI

If you have created or modified a Velocity template for use within the Notification Server, and the template fails to parse, it could be due to how it is encoded.

If you have saved the Velocity template using a UTF8 encoding, you must make sure that the file is saved without the UTF8 byte order mark (BOM).

A byte order mark (BOM) is a character code at the beginning of a file and can be used to define the byte order and encoding form for the file. BOMs are primarily used for text files, which have been created using applications such as Notepad or Wordpad (on Windows). Some protocols, such as XML, do not allow the use of a BOM. As XML is the protocol used for the Velocity templates, this can cause problems. If you have included the BOM within the template file, the XML parser fails to parse the file as it does not recognize the content as being XML.

Make sure that you create and modify your Velocity templates using an editor that does not add a BOM to the file.

Problems with Email Notifications

If you have configured OVBPI to send email notifications for alerts, and you are seeing `Access Denied` errors in the Notification Server log file, it could be because the SMTP Server has been configured to require authentication.

When you set up the configuration for the Notification Server and its connection to the SMTP Server using the Administration Console, the assumption is that there is no authentication required for the SMTP Server.

If the SMTP Server requires authentication to be configured for users, there is some additional OVBPI configuration required. There is an authentication file for the SMTP Server (`SMTPSetup.properties`), which is located in the following directory:

```
ovbpi-install-dir\misc\bia\
```

This file contains the following three parameters, which, on an initial installation are disabled. These parameters are applicable to the authentication settings.

```
#mail.smtp.auth=true  
#mail.smtp.user=myuser  
#password=
```

You need to enter the appropriate values for these parameters and remove the comment character (#) to add SMTP authentication to your OVBPI implementation.

You need to add the SMTP username, and a password for the username specified, to the file. These are the username and password that relate to the SMTP Sender address (Sender email address:). You configured the Sender email address: on the Notification Server Configuration page of the Administration Console.

The value of the password must be encoded within the `SMTPSetup.properties` file; you can encode the password using the following script:

```
java -classpath ovbpi-install-dir\java\bia-event.jar  
org.openadaptor.adaptor.util.Encoder password-value
```

You need to stop and restart the Notification Server for the new parameter values to take effect.



This script file is overwritten when you reinstall OVBPI. The installation procedure makes a copy of the file and renames it as follows:

```
ovbpi-install-dir\misc\bia\SMTPSetup.properties.bak.n
```

where *n* is a number.

If you complete multiple installations *n* is incremented with each reinstallation. The most recent copy of the file is named as follows:

```
SMTPSetup.properties.bak.0
```

6 Problems Using the Administration Console

This chapter describes problems that you might see when using the OVBPI Administration Console. The chapter covers the following topics:

- [OVBPI Administration Console Fails to Open on page 66](#)
- [Administration Console Start and Stop Commands Do not Appear to Be Working on page 67](#)
- [Changes Made to Configurations Not Having Expected Effect on page 68](#)
- [Administration Console Fails When Trying to Start or Stop Components on page 69](#)
- [Server Components Fail to Start and Do Not Write Log File Entries on page 70](#)

OVBPI Administration Console Fails to Open

There are a number of reasons why the Administration Console can fail to open. If you see any of the following error messages it could be due to missing files:

- Unable to apply configuration
This is due to a missing `masterconfig.properties` file.
- Could not find the main class. Program will exit
This is due to a missing `bia-admin.jar` file.
- `ApplicationConfiguration.getInstallDir:OV_INSTALL_DIR` not defined
This is due to a missing `OV_INSTALL_DIR` from `setenv.bat`

The Administration Console also fails if the `bia-common.jar` file is missing.

To determine if one or more of these files is missing, run the Integrity Checker to obtain a report on your system; see [Chapter 1, Introduction](#).

If this is the case, it is likely that other files in your OVBPI system have been removed or are corrupt. Follow the instructions in the *OpenView Business Process Insight Installation Guide* to reinstall the OVBPI Server, including the Integrity Checker. Do not make any changes to the OVBPI configuration as part of the reinstallation. You are reinstalling only to update the installed files.



If you have made changes to any component configuration files directly and not using the OVBPI Administration Console, these changes are overwritten by the reinstallation process. If you want to preserve these changes, copy the modified files to another location before starting the installation and reapply the changes when the installation is complete.

Administration Console Start and Stop Commands Do not Appear to Be Working

If you use the OVBPI Administration Console to stop OVBPI components very quickly after starting them, you can find that the component shutdown might fail.

The command to stop a component is not executed until after the component has successfully started; for some components startup can take a few minutes. If the stop command is issued before the start command has completed, it is ignored.

Make sure that the component that you want to stop has successfully started before you attempt to shut it down.

This behavior is the same when you are attempting to start a component very quickly after stopping it.

Changes Made to Configurations Not Having Expected Effect

If you make changes to configuration parameters using the OVBPI Administration Console and these changes are not applied to your running system, make sure that you have followed the instructions in the *OpenView Business Process Insight System Administration Guide* for the parameter that you are modifying.

The most likely reason for the changes not being accepted is that you have not stopped and restarted the OVBPI components after making the change. Configuration changes are not applied dynamically to the OVBPI system. You typically need to stop and restart the OVBPI Server components for the changes to take effect.

Read the section relating to the configuration parameter that you want to change in the *OpenView Business Process Insight System Administration Guide*.

Administration Console Fails When Trying to Start or Stop Components

If your system is running slowly for any reason, the Administration Console can erroneously report that a component has failed to start or stop. The Administration Console waits for 30 seconds before assuming that a component has failed to start and it waits for 10 seconds before assuming that a component has failed to stop.

The error message reported when a component fails to start is:

```
Failed to connect to the Administration Console Server on {hostname} due to a remote exception. Possibly due to an RMI port number conflict or a slow starting Administration Console Server.
```

The error message reported when a component fails to stop is:

```
Failed to stop component Engine. Possibly due to a slow stopping component.
```

This example shows a problem with the Engine component.

If this is happening regularly, check that you are using a recommended system configuration. If you have the recommended configuration, but have a large number of applications running on the system where OVBPI is installed you might need to move some applications to other systems.

Server Components Fail to Start and Do Not Write Log File Entries

If you are attempting to start the OVBPI Server components using the Administration Console and these components both fail to start and do not generate any log file entries, it could be a problem with the Windows Services Wrappers.

If there is a problem that causes the Windows Services to fail before any of the OVBPI components have started, information regarding the problem can be written to the Service Wrapper log file for the service that is failing to start.

There are configuration files for each of the OVBPI components that also has a Windows Service. In most circumstances, you do not need to modify these configuration files; however, in this case you can alter the setting for logging errors in order to collect logging data relevant to the problem. By default, logging is disabled as the amount of logging information generated can grow excessively. You are therefore advised to enable logging only when you need to collect data for a specific problem scenario.

To enable logging for one, or more, of the Windows Services (for OVBPI Server components), complete the following steps:

1. Locate the appropriate component configuration file for the Windows Service Wrapper configuration.

These configuration files are located in two places; there is an active file and a template file. Each time you make a configuration change using the OVBPI Administration Console, the active files are regenerated based on the content of the template files. For this reason, you need to modify the template file, to ensure that your modifications are preserved following future configuration changes.

Do not modify any of the remaining content of the file, unless otherwise requested to by the support organization, or elsewhere in the OVBPI documentation.

The template configuration files are located at:

```
ovbpi-install-dir\newConfig\DataDir\conf\bia
```

The configuration files have the following naming convention:

```
OVBPIcomponent-nameWrapper.cfg
```

where *component-name* is the name of the OVBPI Server component; for example: MetricEngine.

2. Locate the following section in the configuration file:

```
# Log file to use for wrapper output logging.
# Make sure that one of the following wrapper.logfile settings is enabled.
# A wrapper.logfile setting with no value disables logging. A
# wrapper.logfile value specifying a valid directory and file name
# causes logging information to be written to the specified file. If
# both lines are disabled, logging information is written to the
# wrapper.log file in the same directory as the wrapper executable.
#wrapper.logfile={{ESC_BIAROOT}}{{ESC_FILE_SEPARATOR}}data{{ESC_FILE_SEPARATOR}}log{{ESC_FILE_SEPARATOR}}OVBPIAdminServerWrapper.log
wrapper.logfile=
```

3. As indicated in the comments, you need to remove the comment character (#) from the start of the line that defines an output log file for the Service Wrappers and add a comment character to the following line:

```
wrapper.logfile=
```

Make the change for each of the Service Wrapper configuration files that you want to log errors for.

Do not add a comment character to both lines. If you do, logging information is written to a log file in the same directory as the service wrapper executable file (.exe). This is because a default filename and directory specification are used when no logging parameters are provided.

4. You now need to run the following file to make the changes to the configuration file, or files, active on your OVBPI system:

```
ovbpi-install-dir\bin\biaadmin.bat applyconfig
```

Running this command causes all template configuration files to replace the active configuration files with any new or revised settings. There is also a significant number of messages written to the Command Window. Some of these messages are Warning messages, which can be ignored.

When you next attempt to start the OVBPI Service and the Service fails, logging information is written to the following file:

```
ovbpi-install-dir\data\log\OVBPIcomponent-nameWrapper.log
```

where *component-name* is the name of the OVBPI Server component; for example: *MetricEngine*.

5. Make sure that when you have collected the required logging information that you reset the configuration files and disable the logging that you have enabled.



Note that if you reinstall OVBPI for any reason, the template logging property files are overwritten and you therefore need to reapply your changes.

7 Problems with Flows and Business Events

This chapter provides information on some of the most common problems that you can encounter when developing flows.

When developing flows and configuring events, make sure that you use the following training documents. These documents contain information about how to use the OVBPI Modeler to develop business flows and how to make sure that the correct business events are received by the OVBPI system:

- *OpenView Business Process Insight Integration Training Guide - Modeling Flows*
- *OpenView Business Process Insight Integration Training Guide - Business Events*

You are advised to read these documents as they contain information that helps minimize the number of problems that you can encounter when developing business flows. They contain several examples and tips on best practice. The documents also contain information about the tools that you can use to debug your flows.

The chapter covers the following topics:

- [Flows Completing with One or More Nodes Still Active](#) on page 74
- [Flows Not Progressing](#) on page 75
- [Data Instance Deleted](#) on page 76
- [Business Events Not Processed as Expected](#) on page 77
- [Event Adaptor Property Files](#) on page 78
- [Events Not Received by Engine](#) on page 79
- [Business Events Not Progressing Flow](#) on page 81
- [Errors Reporting that Flow and Data Instances Do Not Exist](#) on page 82

Flows Completing with One or More Nodes Still Active

If you have a business flow that is completed, but that has nodes within the flow that are still showing as active, this could be for a number of reasons:

- The events required to complete the nodes have not been received by the Business Impact Engine; see section [Business Events Not Processed as Expected](#) on page 77.

- Events are received out of sequence, or have an incorrect Generated Date.

Check the date on the event and make sure that the system time settings for all your systems are synchronized.

- The progression rules for the complete conditions are not correct.
Use the Repository Explorer to check the progression rules for the flow.
- Multiple, or duplicate, events are received.

Flows Not Progressing

There are a number of reasons why your flows might not progress:

- You have deleted the data instance for the flow instance; see section [Data Instance Deleted](#) on page 76.
- Progression rules are not correct.

Use the OVBPI Modeler, or the Repository Explorer to check the progression rules for the flow.

- Events are not being received; see section [Events Not Received by Engine](#) on page 79.
- Data in the Event does not have a corresponding Data definition within the OVBPI Modeler.

Check that the data in the Event is correctly represented as a Data definition within the OVBPI Modeler. If it is not, the business flow does not have the data to satisfy the start and complete conditions defined for the nodes.

- Events received for data instances with no parent flow instance.

If you have the scenario where a Flow instance is completed and subsequently deleted, but the associated data instances are not set to be terminated, you might see this problem, particularly during development, or if your system receives out-of-sequence events.

This occurs specifically if you have configured the flow instance to be created when the data instance is created. In this case, the data instance already exists, so the flow instance can not be created and progressed.

Make sure that all data instances associated with a particular flow instance are deleted when the flow instance is deleted.

Data Instance Deleted

If you have deleted a data instance, or a flow instance, including all its data using the Intervention Client, it is possible that you have deleted a data instance used by more than one flow instance. In this case, the flow no longer has a reference to its data, and none of its instances can progress.

If you suspect that this is the case, and you have removed a data instance that has other dependencies, there is no way of reinstating the data instance for the flow.

To solve this problem, you need to remove the flow instance from the system using the Intervention Client.

Business Events Not Processed as Expected

If your flows are not progressing as expected, it could be because your business events are not being received by your OVBPI system.

There are a number of reasons why this might be the case:

- Cursor errors

If you see an error containing the following text in the Business Impact Engine log file, it is likely that you need to increase the value assigned to the number of cursors that are available to OVBPI.

```
ORA - 01000 maximum open cursors exceeded
```

If this is the case, refer to section [Oracle Cursor Setting](#) on page 77.

- Event adaptor property files have incorrect settings; see section [Event Adaptor Property Files](#) on page 78.
- Events are not being received by the Business Impact Engine; see section [Events Not Received by Engine](#) on page 79.
- Events are received by Business Impact Engine but not progressing the flow; see section [Business Events Not Progressing Flow](#) on page 81.

Oracle Cursor Setting

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.

The number of Prepared Statements defined for Business Impact Engine is set through the value of `Maximum number of active JDBC Prepared Statements`. This value is set through the Business Impact Engine configuration settings in the OVBPI Administration Consoles; see section the *OpenView Business Process Insight System Administration Guide*.

Prior to Oracle version 9.2.0.5.0, the maximum number of cursors that could be cached for fast lookup by PL/SQL was bounded by the value of the parameter `open_cursors`. 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`.

After installing OVBPI for the first time, the value of Maximum number of active JDBC Prepared Statements is set to 10,000.

You need to modify the value of `session_open_cursors`; typically, this parameter is set within the `spfile` (Server Parameter file). To modify the value, use a command similar to the following:

```
ALTER SYSTEM session_open_cursors=10000 SCOPE=BOTH
```

The value of `session_open_cursors` needs to be the same as the value set for Maximum number of active JDBC Prepared Statements.

This sets the value of `session_open_cursors` for the running database instance and also sets it in the `spfile`.

Event Adaptor Property Files

You typically create a property file (or configuration file) for each event adaptor that you need for your implementation. The *OpenView Business Process Insight Training Guide - Business Events* describes event adaptors and their property files in detail.

Make sure that the values in the property files are correct for your implementation, for example, check database (or tablespace name) and database user name. If any of the properties in the file is incorrect, the adaptor might not be able to communicate with the Business Event Handler and send business events into the Business Impact Engine.

You can also set the log levels for the Business Event Handler to the `Trace` level to find out whether or not it is receiving business events from the adaptor.

Events Not Received by Engine

If you suspect that the Business Impact Engine is not receiving business events, you can check by setting the Business Impact Engine log level to `FINER` and checking the log files. Make sure that you reset the log level when you have completed the test.

The Business Impact Engine might not be receiving business events for the following reasons:

- Event adaptor is incorrectly configured; see section [Event Adaptor Property Files](#) on page 78.
- Incorrect SQL commands.

If you have configured database adaptors to take data from an SQL table, it is possible that the SQL commands for the Event adaptors are incorrect.

If possible test the SQL commands manually to make sure that they return the information that you expect. You can then incorporate them into your OVBPI implementation when they have been tested.

You can also consider running the adaptor such that it does not delete records from the data tables immediately after processing them. This enables you to work out which events have been processed.

- Incorrectly configured adaptor source
Check that the source information for your adaptors is correct and returning the data that the adaptors are expecting. Try running the adaptors manually to determine whether or not they are returning the correct information.
- The Business Impact Engine is shut down, or failed, while the adaptor is running.

If the Business Impact Engine component is shutdown and unable to receive events, the Business Event Handler component manages the queued events and attempts to send them at a later time.

- The Event names are incorrect, or contain data that is not valid. In this case, check to see if the Event has been copied to the Event Hospital.
- The Business Impact Engine has rejected the business event for a particular reason, for example, the flow has been received out of sequence and there is no flow instance to progress at the point when the event is received. In this case, the Business Impact Engine sends the business

event to the event Hospital and marks it to be automatically discharged. This allows time for the relevant flow instance to be started before the business event is sent back to the Business Impact Engine for processing.

- Business Event Handler not started.

It is possible that the Business Event Handler has been stopped for some reason. Check the status of the Business Event Handler using the OVBPI Administration Console, and restart it if necessary.

The OpenView Business Process Insight Training Guide - Business Events provides information on developing and debugging Event adaptors, plus information on Event Hospitals.

Business Events Not Progressing Flow

If you know that the Business Impact Engine is receiving business events, but the flow is not progressing, or not progressing as you expect, check the following:

- that your progression rules and subscription rules are correct. You can use the Repository Explorer to show details of your business flows, including all the progression rules defined for the flow.
- whether the events are being received out of sequence and therefore not updating the business flow as anticipated.

Where possible, you should write your progression rules to be independent of Event order. Refer to the following training guide for guidelines on developing flows:

OpenView Business Process Insight Integration Training Guide - Modeling Flows

- whether Events are showing the correct data and time.

It is possible that you are not operating with consistent times across the machines in your OVBPI implementation. Check the system times for all the machines and make sure that they are synchronized.

- whether all the required events have been defined.

It is possible that the Events that you have defined do not provide all the data required by the flow. Check that all the Data definitions are being populated from your Event definitions.

- that the Event name being received by the Business Impact Engine matches the Event definition within the OVBPI Modeler.

If the Event name does not match the Event definition, the Flow cannot progress. Make sure that the Event name is used consistently across your implementation. Event names are not case sensitive.

Errors Reporting that Flow and Data Instances Do Not Exist

If you are receiving regular error messages indicating Flow or Data instances do not exist, you need to check how you have configured your Flow definitions, Data definitions and Engine Instance Cleaner.

These error messages are reported in the Business Impact Engine log file when an event is received for a flow or data instance that does not exist, and the system is configured such that the flow or data instance is not created if it does not already exist.

The following are the errors that the Business Impact Engine reports when a flow or data instance does not exist:

```
Nov 19, 2004 1:09:13 PM
com.hp.ov.bia.bce.model.AbstractFlowObject doNodeEntryCriteria
WARNING: Entering a flow instance at node "NodeID" when the
instance did not already exist.
```

```
Nov 19, 2004 1:09:17 PM
com.hp.ov.bia.bce.model.AbstractDataModel onEvent WARNING: Data
object with name: DataInstanceName and identifier:
DataInstanceID, identified by event EventName, does not exist.
Filter is Property."PropertyName" == Event."EventPropertyName"
```

The reasons why these errors might be occurring are:

- The instance has completed and has been deleted. Subsequently, an out-of-sequence event has been received for the instance.

If this occurs frequently, consider extending the time period that you have set before completed instances are deleted.

- The Engine Instance Cleaner is set too aggressively and is deleting active instances prematurely.

If this occurs frequently, consider extending the time period that you have set before active instances are deleted.

- The instance has not yet been created and an out-of-sequence event has been received that updates it.

In the case of a flow instance, make sure that all nodes close to the start point for a flow are configured to enable a flow instance to be created if it does not already exist.

In the case of a data instance, make sure that the data instance can be created for all likely scenarios of event arrivals.

Events received under these circumstances are sent to the event Hospital and marked to be discharged automatically. This allows time for the flow or data instance to be created before the event is sent back to the Business Impact Engine.

- The instance has been deleted through the intervention client.

8 Problems with OVBPI, OVIS, OVSD and OVD Integration

This chapter describes problems that you might see when integrating OVBPI with either OVIS or OVSD. The chapter covers the following topics:

- [OVIS Integration Is Not Working](#) on page 86
- [OVIS Custom Probes Not Obtaining Data from OVBPI](#) on page 86
- [OVIS Custom Probes Return Unexpected Results](#) on page 88
- [Business Process Dashboard Reports Conflicting Results for OVIS Probes](#) on page 89
- [OVSD Client Errors Following OVSD Process Insight Configuration and SQL Server](#) on page 90
- [Error When Generating OV Dashboard for OVBPI](#) on page 92

OVIS Integration Is Not Working

If you have enabled *OVIS* interoperability from within the *OVBPI* Administration Console and the integration is not working, it could be because *OVIS* is not entering alarm data into its database. Refer to the *OpenView Business Process Insight Reference Guide* to make sure that the *OVBPI* connection to *OVIS* is correctly configured.

OVIS Custom Probes Not Obtaining Data from OVBPI

If the *OVBPI* custom probes are not obtaining *OVIS* metric information from the *OVBPI* system, it could be for one of the following reasons:

- The probes are installed on a system that is remote from the *OVBPI* Server, which is configured to use an Oracle database.

If you are using the *OVBPI* Custom Probes on a system remote from the system where the *OVBPI* Server is installed, you need to make sure that the Oracle Client software for Windows is installed on the *OVIS* system. The Oracle Client software provides the Net Configuration Assistant, which you use to configure a Net Service Name. See the *OpenView Business Process Insight Installation Guide* for details of the Oracle requirements for the *OVBPI* Custom Probes.

- The probes are installed on a system that is remote from the *OVBPI* Server, which is configured to use an Oracle database, and the Oracle Client software is installed.

If your *OVBPI* custom probes are failing and showing the following Oracle error message in their log file, it could be due to problems connecting to a remote Oracle database:

```
ORA-12514: TNS:listener could not resolve SERVICE_NAME given  
in connect descriptor
```

The OVBPI custom probe log file is located as follows:

```
ovis-install-dir\var\log\error.log
```

The reasons for this error could be related to the configuration of your Naming Methods Configuration in the Oracle Client software. To check your Naming Methods configuration, complete the following steps:

a. Select:

```
Programs|Oracle - ORAnn|Configuration and Migration  
Tools|Net Configuration Assistant
```

where *nn* represents the version of Oracle that you are using.

You are presented with a menu of configuration options.

b. Select the Naming Methods Configuration.

You are presented with a dialog to select the Naming Methods for your connection to a remote Oracle database.

c. Make sure that the Local Naming Method is selected and that it appears above Host Names in the list of Selected Naming Methods.

If after making these changes, the connection still fails, check the connection settings for the Local Net Service Name that is used by the probes. These are held in the file:

```
%ORACLE_HOME%\network\ADMIN\tnsnames.ora (Oracle 9i)  
%ORACLE_HOME%\product\10.1.0\network\ADMIN\tnsnames.ora  
(Oracle 10g)
```

- There is a problem with the custom probes being unable to connect to an Oracle Server database.

If you see the following Oracle error in the OVIS Probe log file, you are likely to be experiencing a known problem with Oracle:

```
ORA-12640: Authentication adapter initialization failed
```

To resolve this problem, you need to modify the following line in the file `sqlnet.ora`:

```
SQLNET.AUTHENTICATION_SERVICES= (NTS)
```

Change the line to be as follows:

```
SQLNET.AUTHENTICATION_SERVICES= (NONE)
```

Now stop and restart the Oracle Services.

- The ODBC driver name is incorrect.

If you see the following error in the OVIS Custom Probes log file, it could be because the ODBC driver name is not correctly defined.

Check that the ODBC driver name configured in the following file is correct:

```
ovis-install-dir\probes\OvbpiProbe.cfg
```

To find out the correct value for the ODBC driver, complete the following steps:

- a. Open the ODBC Data Source Administrator utility from the Control Panel on the system where the OVIS Custom Probes are installed. This utility can be accessed from the Control Panel | Administrative Tools | Data Sources (ODBC).
- b. Select the Drivers tab and find the name of the Oracle ODBC driver.
- c. This name should match the setting in the `OvbpiProbe.cfg` file.

If the names do not match, modify the parameter in the `OvbpiProbe.cfg` file and save the probe within the OVIS Configuration Manager.

OVIS Custom Probes Return Unexpected Results

If you are seeing unexpected results being returned from your custom probes, check that the systems that are being probed are all set to have a common system time. Some of the probe check intervals can be very small, and therefore any discrepancy in system time can give unexpected and incorrect results.

OVIS Custom Probes Return Create Process Error

If you are using OVIS version 6.0, and you see an error similar to the following in the OVIS log file, it could be that there are incorrect user name and password credentials entered in the Run as User section on the Service Target dialog for the OVBPI custom probes:


```
2005-11-21 15:15:00 WARNING Scheduler(21336)
[CScheduler.cpp:911]: IOPS 2-14: Unable to create process
probeBIZ_FLOW, CreateProcess error 1036320. (Logon failure:
unknown user name or bad password.
```

OVBPi does not use the information entered in these fields; however, OVIS does require them to have null values, or values that are valid for the system where you are using the custom probes. Make sure that the values for the user name and password credentials are correct for your implementation.

The OVIS log file is located at:

```
ovis-install-dir\data\log\probe\error.log
```

Business Process Dashboard Reports Conflicting Results for OVIS Probes

Occasionally, you can see conflicting results from the Business Process Dashboard when receiving flow impact alerts from OVIS.

This is because OVIS writes alarms to its database at specified intervals, and OVBPI is configured to read these alarms at specified intervals. It is therefore possible for the Business Process Dashboard to be reporting different results for an OVIS probe, during this period; for example, the Dashboard might report that the overall OVIS Service status is *Healthy*, but when you link to the OVIS Dashboard from the OVBPI Dashboard, the equivalent OVIS Service might be marked as impacted.

OVSD Client Errors Following OVSD Process Insight Configuration and SQL Server

An error similar to the following can be reported by an OVSD client following the configuration of HP OpenView Service Desk Process Insight when using Microsoft SQL Server:

```
JDBC error 547: [SHS05] INSERT statement conflicted with COLUMN FOREIGN KEY constraint ...
```

The message details vary depending on the type of OVSD item being updated in the OVSD client; for example, Service Calls, Incidents, Problems, Changes or Work Orders. The message shown above is a portion of the reported message.

The error is reported because OVSD fails to create a row in OVBPI buffer table as a result of a database trigger that you have created for OVSD Process Insight. The most likely reason for this message is that the OVSD Process Insight staging area, or buffer table, is created with an incorrect database owner. This staging area is called OVBPI_ITEM_CHANGE_HIST.

There is a property called DB_OWNER_USER_NAME in the following OVBPI file:

```
ovbpi-install-dir\examples\bia\ServiceDeskAdaptors\  
SD_Adaptor_Config.properties
```

DB_OWNER_USER_NAME is the name of the owner of the OVSD database tables. If the OVSD database tables were created from the sa account, this is dbo. The property file specifies dbo as the database user, unless you change it to another value. If this value is incorrect, the OVSD Process Insight database staging area is created with an incorrect owner, the database triggers fail to run and OVSD cannot create a new item (Service Calls, Incidents, Problems, Changes or Work Orders).

DB_OWNER_USER_NAME must be set to the database user name appropriate to the account from which the OVSD database tables were created.

Refer to the *HP OpenView Business Process Insight Integration Training Guide - Monitoring Service Desk* for more details of this property file and setting the DB_OWNER_USER_NAME parameter.

OVSD Incident Information Not Available Through Dashboard

If the OVSD Incident or Service Call details are not listed on the Service Health page of the Business Process Dashboard when the Incidents and Service Calls are shown as open in the Service Desk client, it could be because you have not correctly configured the integration with Service Desk.

When configuring the Incidents and Service Calls in the Service Desk client, make sure that you map the Incident or Service Call to your newly-created OVSD service by completing the SN Name field details in the Service dialog box.

The Service dialog has a box called Service Navigator. This box contains a text box labeled SN Name, which must match the OVO service name as imported into OVBPI.

1. Obtain the OVO Service name (not the OVO Service label) for the particular OVO Service you want monitor through OVSD.

This Service name, is listed on the Service Description tab for the Service within the OVBPI Modeler. The format of the name is `OVO: svc-name`; for example, if you have a Service Description of `OVO: service1`, the Service name that you need to enter into the SN Name field within OVSD is `service1`.

2. Create a new Service for OVSD as usual and name the Service using the Service Name obtained from the Modeler Service Description in the previous. This name is entered into the SN Name field on the dialog.

Error When Generating OV Dashboard for OVBPI

If you receive errors when generating an HP OpenView Dashboard console for OVBPI, it is likely to be because you have not configured, or incorrectly configured, the connection between OVBPI and OV Dashboard.

When configuring the HP OpenView Dashboard to integrate with OVBPI, you need to supply the following information:

1. The fully qualified host name of the machine where the OVBPI Server is installed.
2. The port number for the OVBPI Web Services Provider.
3. The port number for the OVBPI Servlet Engine component.
4. The string `OVBPI`, which is required by OpenView Dashboard to identify the connection as an OVBPI connection.

You can find the relevant port numbers using the Administration Console on the Port Numbers page. The OV Dashboard uses this information to build a URL to access the OVBPI Web services and the OVBPI Business Process Dashboard pages.

If you omit any of this information, or if you enter incorrect information, you receive errors when you attempt to generate the OV Dashboard console that you are creating for OVBPI.

In particular, you must make sure that you enter the string `OVBPI` to identify the connect as an OVBPI connection.

9 Problems When Creating Data in the OVBPI Database

This chapter describes database problems where they are directly related to OVBPI. For more general information on database problems, refer to the documentation relating to the database that you have installed.

This chapter covers the following topic:

- [Tablespace Error - Out of Space](#) on page 94
- [Connection Refused from Microsoft SQL Server 2000](#) on page 95

See also [Chapter 2, Problems Installing and Removing OVBPI Components](#), which also contains information about installation failures relating to the database.

Tablespace Error - Out of Space

If you see errors in the log files indicating that the data files or tablespace is out of space and OVBPI is unable to write new records to it, it could be because the data file, or tablespace, is too small.

To solve this problem, you should use your database management tools to increase the size of the data files (MS SQL Server), or Tablespace (Oracle).

At installation, the tablespace size is set initially to 50MB and to automatically increase in size in steps of 100MBs. The initial 50MB is sufficient for approximately 1,000 instances of a five-node business flow.

As the database file size is set to automatically increase it is possible that there is no more disk space available to increase the file size. Alternatively, you might have modified the database parameters and set a defined database size, which has been exceeded.

You need to investigate increasing the amount of space available to your implementation. Refer to the *OpenView Business Process Insight Installation Guide* for information relating to space requirements for the database data, specifically for OVBPI.

Use the following tools to modify the size of your data file or Tablespace, according to the database software that you are using:

- Enterprise Manager, for Microsoft SQL Server
- Enterprise Manager for Oracle

Connection Refused from Microsoft SQL Server 2000

If you install the OVBPI Server and you are presented with an error message indicating that the connection to the database is refused, it could be because you have not installed the Microsoft SQL Server SP3a.

SP3a is a prerequisite for the SQL Server 2000 installation (see the *HP OpenView Business Process Insight Installation Guide*), and must be applied before installing the OVBPI Server.

If you do not install SP3a, Microsoft SQL Server refuses the connection request when the OVBPI installer attempts to create the database.

10 Files and System Problems

This chapter describes problems that you might encounter with the system where OVBPI is installed and with the OVBPI files. These system problems might be the cause of other issues you are experiencing with your OVBPI system.

The chapter covers the following topics:

- [Excessive Disk Space Usage](#) on page 98
- [Missing Files and Directories](#) on page 100
- [Checksum Errors in Integrity Checker](#) on page 101
- [Firewalls and OVBPI](#) on page 102
- [Regional Settings for Windows](#) on page 103

Excessive Disk Space Usage

If your OVBPI is consuming a significant amount of disk space, check the following:

- the correct logging levels are set for the OVBPI components.
It is possible that someone has reset the logging level for one or more OVBPI components. If this is the case, the log files can get very large and consume large amounts of disk space. Refer to section [OVBPI Server Log Files](#) on page 110 for more information about the log levels.
- the number of image files in the OVBPI Business Process Dashboard images directory; see section [Servlet Engine Log File Error: Too many old generated images to clean up](#) on page 98.

Servlet Engine Log File Error: Too many old generated images to clean up

If you find an error similar to the following in the Servlet Engine log file, you need to delete unwanted generated image files from the Business Process Dashboard images directory:

```
22-Nov-2006 15:56:12 org.apache.catalina.startup.Catalina load
INFO: Initialization processed in 1094 ms
22-Nov-2006 15:56:12 org.apache.catalina.core.StandardService
start
INFO: Starting service Catalina
22-Nov-2006 15:56:17 org.apache.catalina.startup.Catalina start
INFO: Server startup in 4750 ms
22-Nov-2006 15:57:23
com.hp.ov.bia.views.admin.GeneratedImageCleaner
ERROR: Too many old generated images to clean up: C:\Program
Files\HP
OpenView\OVBPI\nonOV\jakarta-tomcat-5.0.19\webapps\ovbpidashboar
d2-10\images\generated
```

The Servlet Engine log file is located at:

```
ovbpi-install-dir\nonOV\jakarta-tomcat-5.0.19\logs
```

If you see an error indicating too many old generated images, you need to delete the unwanted generated image directories from your Business Process Dashboard images directory, or directories, if you have more than one Dashboard. You specifically need to check previous versions of the Business Process Dashboard, which are not deleted when you reinstall OVBPI.

Deleting the generated image files does not impact your system as these files should be removed by the Servlet Engine automatically when you close the Business Process Dashboard session.

The location of the image files is shown in the error message. In the case of the example this is:

```
OpenView\OVBPI\nonOV\jakarta-tomcat-5.0.19\webapps\  
ovbpidashboard2-10\images\generated
```

Missing Files and Directories

You might be alerted to the fact that you have missing files and directories if you have run the Integrity Checker and it has reported that one or more files is missing or corrupt.

If the number of missing files is small and contained, you can recover the files from a backup copy. However, if the number of missing files is significant, you are advised to reinstall the OVBPI components to reinstate all files as described in the *OpenView Business Process Insight Installation Guide*.

Do not make any changes to the OVBPI configuration as part of the reinstallation. You are reinstalling only to update the installed files.



If you have made changes to any component configuration files directly and not using the OVBPI Administration Console, these changes are overwritten by the reinstallation process. If you want to preserve these changes, copy the modified files to another location before starting the installation and reapply the changes when the installation is complete.

Checksum Errors in Integrity Checker

There are a number of reasons why you might see checksum errors, some of which can be ignored. Examples of reasons for these errors are:

- modified files

If you have modified files, for example, configuration files, you will see checksum errors for these files. These errors can be ignored.

- replaced files

You might have been asked to replace files by your support representative, in which case these files will report checksum errors. These errors can be ignored.

- corrupt files

If a file has not been modified or replaced, you could be seeing checksum errors because the file is corrupt. In this case, follow the instructions for missing files and directories; see section [Missing Files and Directories](#) on page 100.

Firewalls and OVBPI

Be aware that some firewall software can block RMI socket ports and therefore interfere and potentially stop OVBPI operating. This is because some firewall software does not successfully track temporary RMI ports that are created as a result of spawned RMI connections.

If you are using firewall software on the system where OVBPI is installed and OVBPI is not operating correctly, it could be because the RMI communication port is being blocked by the firewall software. If this is the case, you might need to reconfigure the firewall software to ensure that the OVBPI components can successfully communicate with each other.

Regional Settings for Windows

If you are experiencing problems such as the following, it could be because the regional settings are not set correctly on your Windows system:

- You cannot install OVBPI successfully
- Log files do not display correctly
- The Import option within the OVBPI Modeler does not display characters correctly.

When setting the Regional and Language options through the Control Panel, you need to make sure that the language that you choose is mapped such that it can execute non-unicode programs. If you do not, you might see unpredictable results, particularly with Asia Pacific languages.

The following are examples of how to set the regional settings for Windows 2000 and Windows XP:

- On Windows 2000
 - a. Open the Regional Options dialog from the Control Panel.
 - b. Make sure that the language selected for the Set Default option for Your Locale matches the language selected in the General tab.
- On Windows XP
 - a. Open the Regional and Language Options dialog from the Control Panel
 - b. Make sure that the language selected in the Advanced tab matches the language selected in the Regional Options tab. The Advanced tab is where you are matching the language version of the non-unicode programs that you want to use.

Displaying Asia Pacific Characters

Some properties of your OVBPI definitions can include Asia Pacific characters; for example, definition names and descriptions. If you display these properties on a system that does not have an Asia Pacific locale configured, these properties are not displayed correctly, if at all.

In order to view these Asia Pacific characters on a system that is not configured with an Asia Pacific locale you need to configure your system to recognize the specific fonts that are being used. The configuration required depends on the interface that is exhibiting the problem:

- [OVBPI Web-Based Clients](#) on page 104
- [OVBPI Modeler](#) on page 105

OVBPI Web-Based Clients

In the case of the OVBPI Web-based clients, you must install the Windows files for East Asian languages. The OVBPI Web-based clients are:

- Business Process Dashboard
- Metric definer
- Notification Server Administration Console
- Repository Explorer
- Intervention Client

To install these languages, complete the following steps:

1. Open the Control Panel
2. Select Regional and Language Options
3. From the Regional and Language Options dialog, select the Language tab.
4. Select the Install files for East Asian Languages checkbox.
5. Click OK.

The installation of the languages continues; you might be prompted for the Windows installation disks for a copy of the relevant files.

OVBPI Modeler

In the case of the OVBPI Modeler, the language settings are managed by the Java Runtime Environment installed on the OVBPI system. Specifically, you need to configure the font property file (`font.properties`) in order to display characters in the specific Asia Pacific languages that you need. Details of this file and how to configure it can be found on the Sun Website, a possible URL is:

<http://java.sun.com/j2se/1.3/docs/guide/intl/fontprop.html>

Note that URLs are likely to change, so you might have to search the Sun Website if the above URL is out of date.

The font property files are located on your system at the following location:

```
java-install-dir\jre\lib
```

In the case of Asia Pacific languages, you can select from a number of `font.properties` files that corresponds to your particular environment. These files are identified by the country, or locale, suffix that is appended to the file name:

```
java-install-dir\jre\lib\font.properties.locale
```

where *locale* indicates the language; for example:

- `ja` for Japanese
- `ko` for Korean

You need to copy the entries from the language-specific files to `font.properties` to add the support for the additional languages that you require.

11 openadaptor Problems

This chapter describes problems that you might encounter with openadaptor components, where they are directly related to OVBPI.

For more general information on openadaptor problems, refer to the openadaptor web site:

<http://www.openadaptor.org/>

This chapter covers the following topic:

- [openadaptor HAT Security Permissions](#) on page 108

openadaptor HAT Security Permissions

If you cannot edit or access the `User Roles` or the `Editable Attributes Admin` menu options, it is probably due to the fact that the `OVBPI` user no longer has the `HATSecurity` role assigned to it.

To add the required permissions to the `OVBPI` user, complete the following steps:

1. Start a database management tool that enables you to read and insert records into a database table, for example, Oracle Enterprise Manager Console.

2. Locate the `OVBPI` user database tables.

If you accepted the default user during the installation, this is the `OVBPIUSER`.

3. View the contents of the `DBUSMH_USER` table (the capitalization varies according to the database type).

Note the value of the user identifier for the `OVBPI` database user.

4. Open the following table:

```
DBUSMH_USERROLE
```

5. Insert a row into the table, where the user identifier is the value noted in step 3, and the role identifier is 5.

A role identifier of 5 specifies the `HATSecurity` role; see the table `DBUSMH_ROLE`.

6. Close the database management tool.
7. Select the `openadaptor HAT Admin` menu option.

You can now access the `User Roles` and `Editable Attributes` options.

12 Logging and Tracing Problems

This chapter describes the log files for the OVBPI components. If your log files are not displayed correctly it could be due to the language settings on your Windows system; see section [Regional Settings for Windows](#) on page 103.

The chapter covers the following topics:

- [OVBPI Server Log Files](#) on page 110
- [OVBPI Modeler Log Files](#) on page 112
- [Logging Properties Structure and Description](#) on page 113
- [Tracing and XPL](#) on page 115

OVBPI Server Log Files

The OVBPI Server log files are accessible through the OVBPI Administration Console. For information about the OVBPI Modeler log files, refer to section [OVBPI Modeler Log Files](#) on page 112.

The log files for the Administration Console are called `bia_adminservern_n.log` and `bia_adminclientn_n.log`, and are located in the following directory on the system where OVBPI components are installed:

`OVBPI-install-dir\data\log` (Windows)

`OVBPI-install-dir/data/log` (HP-UX)

The OVBPI log files are text files that you can open using a text editor. The structure and naming of the OVBPI log files can be configured and is described in section [Logging Properties Structure and Description](#) on page 113.

There are a number of logging levels available that change the volume and level of logging information provided by each OVBPI component; for most components these levels are:

- Info
- Fine
- Finer

These logging levels listed are in descending order of level and volume of data reported. These log levels complement the levels used by other OpenView products, to provide a consistent level of logging across your OpenView product portfolio.

By default the log levels are set at the `INFO` level. This level includes `WARNING` and `SEVERE` log levels.

In the case of components using Log4J, for example, the Business Event Handler, the levels are:

- Info
- Trace

You can set the levels of logging through the OVBPI Administration Console using the `Logging` option.

The generated log files can be viewed through the OVBPI Administration Console, or from the following location:

- `OVBPI-install-dir\data\log` (Windows)
- `OVBPI-install-dir\data/log` (HP-UX)

In the case of a failure in the OVBPI Administration Console, you might need to open the log file directly as you cannot access it through the console.

OVBPI Modeler Log Files

The Modeler log files are not accessible using the OVBPI Administration Console.

The location of the Modeler log files is described in the *OpenView Business Process Insight System Administration Guide*. The properties of the OVBPI Modeler log files is described in section [Logging Properties Structure and Description](#) on page 113.

openadaptor Log Files

The openadaptor log files are not accessible using the OVBPI Administration Console.

The location of the log files for adaptors developed using openadaptor depend on how your adaptors are configured and are described in the *OpenView Business Process Insight Integration Training Guide - Business Events*.

OVBPI Service Wrapper Log Files

The Windows Service Wrapper log files are located at:

```
OVBPI-install-dir/bin/bia/wrapper.log
```


Logging Properties Structure and Description

Most of the OVBPI logging property files all have a similar structure; the following is an extract from the Business Impact Engine property file:

```
#####  
# File output is in BIA's log directory.  
java.util.logging.FileHandler.pattern=C:\\Program Files\\HP  
OpenView\\OVBPI\\data\\log\\bia_bce%u_%g.log  
java.util.logging.FileHandler.limit=10000000  
java.util.logging.FileHandler.count=100  
java.util.logging.FileHandler.formatter=java.util.logging.SimpleFormatter  
  
#####  
# Logging levels  
#####  
  
# Available levels are OFF, SEVERE, WARNING, INFO, FINE, FINER, FINEST, ALL  
  
# Default global logging level.  
.level=INFO  
  
# BIA logging level. Recommended setting is INFO.  
# The handling of Events is logged at FINE. The contents of Events are logged  
at FINER.  
# However these settings will produce a large amount of logging which may  
consume disk space.  
com.hp.ov.bia.level=INFO  
  
# This is intended to turn off INFO and below in Hibernate.  
net.sf.hibernate.level=WARNING  
  
# This is intended to turn off RMI logging.  
sun.rmi.level=OFF
```

The Business Event Handler log files have a different structure, which is described in the *OpenView Business Process Insight Integration Training Guide - Business Events*.

In the case of the Business Impact Engine example, the following parameters affect how information for the Business Impact Engine component is logged:

- `java.util.logging.FileHandler.pattern`

This parameter determines location and name of the log files. The following tags are used within this parameter:

— `%g`

This is a file generation number and is used as the log files are rotated. When the maximum number of bytes that should be written to a file is reached, or the OVBPI component is restarted, a new log file is opened and named `bia_bce0_0.log`. The previous log file is then renamed, for example, `bia_bce0_1.log`.

— `%u`

This is a unique number that is used to resolve conflicts. This is the second part of the number in the log file name, for example: `0_0`, `0_1` or `0_2`. `%u` generates the 0, 1 or 2 in these file names.

- `java.util.logging.FileHandler.limit`

This parameter specifies an approximate maximum amount to write (in bytes) to a log file. If this is zero, then there is no limit. If this parameter is not set, the OVBPI system default is zero, no limit.

- `java.util.logging.FileHandler.count`

This parameter specifies how many output log files to cycle through. If this parameter is not set, the OVBPI system default is one file.

- `java.util.logging.FileHandler.formatter`

This parameter specifies the name of a Formatter class to use for the log files. If this parameter is not set, the OVBPI system defaults to using the `java.util.logging.XMLFormatter`.

Tracing and XPL

Many of the OVBPI components can generate trace files. These are binary files that can be read using the OpenView XPL trace viewer. The XPL trace viewer is not installed as part of the OVBPI Server, but is available on your distribution media.

These trace files are intended to aid your support representative to isolate problems with the OVBPI system. The description of the use of the XPL viewer is beyond the scope of this document. However, when running the XPL Viewer to view and save trace files, you need to know which applications listed by the viewer relate to OVBPI components. These are shown in the following table (Table 1):

Table 1 List of XPL Applications that Relate to OVBPI

XPL Application	OVBPI Component
OVBPI-Admin	OVBPI Administration Console
OVBPI-Engine	Business Impact Engine
OVBPI-Modeler	OVBPI Modeler
OVBPI-ModelRepositoryServerStop	For internal use only
OVBPI-EventHandler	OVBPI Business Event Handler
OVBPI-NotificationServer	OVBPI Notification Server
OVBPI-ModelRepository	OVBPI Repository
OVBPI-Metric-Engine	OVBPI Metric Engine
OVBPI-ServletEngine	Tomcat Servlet Engine
SOAM-Adaptor	OVBPI SOA Manager Adapter
OVBPI-Webservices	Web Services Provider

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