

Section 1: Overview of Database Configuration

Section 2: SQL Server Database Setup

MS SQL Server 2000 MS SQL Server 2005

Section 3: Oracle Database Setup

<u>UNIX Settings</u> <u>Oracle 9i (Solaris or HP-UX)</u>

Oracle 10g (Solaris or HP-UX)

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Overview of Database Configuration



Special Instructions for Configuring Databases

For your convenience this document pulls the information on database configuration out of the *hp OpenView Reporter Installation and Special Configuration Guide* and includes it with your Internet Services product.

Overview

Internet Services and Reporter share the same database for storing performance and reporting information.

The default database for Internet Services is Microsoft SQL Server 2000 Desktop Engine (MSDE).

⚠ IMPORTANT: When upgrading from a previous version of OVIS or Reporter the minimum requirement for SQL Server 2000/MSDE is now Service Pack 3 or 3a. This Service Pack is required to deal with vulnerability in SQL Server 2000 to destructive computer viruses (such as the SLAMMER worm virus). Please upgrade your database instance before installing OVIS.

You may choose to change the database to one of the following supported databases:

- Oracle 9.2 for Solaris or HP-UX
- Oracle 10.1.0 for Solaris or HP-UX
- SQL Server 2000
- SQL Server 2005
- SQL Express 2005

WARNING: Migration of data from a different database to the new SQL Server or Oracle database is not supported for Internet Services. And if you have OVIS and Reporter on the same system, attempting to migrate Reporter data to the new database may result in problems in OVIS.

There are several database configurations possible depending on which OpenView products you have installed. See the following scenarios:

If you have Reporter already installed on the same system as Internet Services will be installed.	When you install OVIS, it will detect whatever database is configured for Reporter and use this same database. The OVIS installation configures a connection to this database and adds table entries for OVIS as needed.
If you do not have Reporter and are installing Internet Services for the first time.	The MSDE default database is installed. You can later use instructions in this guide for configuring an Oracle or SQL Server 2000 or SQL Server/Express 2005 database instead.
If you do not have Reporter and are updating from a previous version of Internet Services to this version.	The upgrade uses the existing database where possible.

Using this guide

The information in this guide was taken from the Reporter documentation. The database configuration procedures are almost identical for Reporter and Internet Services

References to using the Reporter GUI to configure Oracle database logins are replaced with instructions for using the OVIS Configuration Manager to configure the Oracle database logins.





Configure Microsoft SQL Server as the Database



Internet Services now uses MSDE (Microsoft SQL Server Desktop Engine) as the default database. The MSDE version that is used is a subset of SQL Server 2000, which means that much of the SQL 2000 functionality is present in the MSDE database, even though no dialogs are available to assist in the configuration. MSDE has a 2GB size limit per database instance. Knowing this, you may at some point choose to change to a SQL Server 2000 database or a SQL Server 2005 database.

Upgrade: When upgrading from MSDE to SQL Server 2000 follow the instructions provided by Microsoft and choose the OVOPS instance to upgrade.

When upgrading from MSDE to SQL Server 2005 you can upgrade to SQL Server 2005 Express Edition or upgrade to SQL Server 2005 Workgroup Edition but not directly to the SQL Server 2005 Enterprise Edition. Follow the instructions provided by Microsoft and choose the OVOPS instance to upgrade. An example of an upgrade from MSDE to SQL Server 2005 Express Edition is provided at the end of this section.

New Database: The instructions for changing to a new SQL Server 2000 or 2005 database (rather than upgrading from MSDE) are contained in the link below. These instructions could be used when installing SQL Server 2000 or SQL Server 2005 on a remote system.

IMPORTANT: Do not connect multiple copies of Internet Services to the same database as unexpected results occur when more than one copy of OVIS attempts to write data to the configured database.

IMPORTANT: Migration of data from your old database to the new SQL Server database is not supported for Internet Services (OVIS). And if OVIS is on the same system as hp OpenView Reporter, attempting to migrate Reporter data to the new database may result in problems in OVIS.

IMPORTANT: When upgrading from a previous version of OVIS or Reporter the minimum requirement for SQL Server 2000/MSDE is now Service Pack 3 or 3a. This Service Pack is required to deal with vulnerability in SQL Server 2000 to destructive computer viruses (such as the SLAMMER worm virus). Please be sure you have upgraded your database instance before installing OVIS.

- Configure Microsoft SQL Server 2000 as the database.
- Configure Microsoft SQL Server 2005 as the database.

2 Set Up Microsoft SQL as the Database Configure SQL Server 2000



Set Up SQL Server 2000 as the Database

Internet Services uses the MSDE (Microsoft SQL Server Desktop Engine) as its default database. The MSDE version that is used is a subset of SQL Server 2000, which means that much of the SQL 2000 functionality is present in the MSDE database, even though no dialogs are available to assist in the configuration. MSDE has a 2GB size limit per database instance. Knowing this, you may at some point choose to change to an SQL Server 2000 database. When upgrading from MSDE to SQL Server 2000 follow the instructions provided by Microsoft and choose the OVOPS instance to upgrade.

Since the Internet Services product does use an MSDE instance name (OVOPS) you will see the instance name when using SQL Server 2000 Enterprise Manager to look at the database. The corresponding SQL Server 2000 examples will not use the instance name since you are not required to use an instance name with SQL Server 2000.

Mhen upgrading from a previous version of OVIS or Reporter the minimum requirement for SQL Server 2000/MSDE is now Service Pack 3 or 3a. This Service Pack is required to deal with vulnerability in SQL Server 2000 to destructive computer viruses (such as the SLAMMER worm virus). Please upgrade your database instance before installing OVIS.

Migration of data from your old database to the new SQL Server database is not supported for Internet Services (OVIS). And if OVIS is on the same system as hp OpenView Reporter, attempting to migrate Reporter data to the new database may result in problems in OVIS.

IMPORTANT: If you use systems with different language settings, the OVIS Reporter database should be created using the same default locale character set as the system where OVIS is installed (Management Server). At this time, OVIS does not support databases that have been configured to use the UTF-8 character set.

Database Performance Note:

Adding indexes can improve performance. With OVIS 5.2 indexes were added to the following tables. Consult your DBA for a maintenance plan for these indexes.

IOPS_PROBE_DATA

Index	Field
Indx2_IOPS_PROBE_DATA	DATETIME
Indx6_IOPS_PROBE_DATA	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA	SERVICE_NAME
Indx25_IOPS_PROBE_DATA	PROBENAME

IOPS_PROBE_DATA_CACHE

Index	Field
Indx2_IOPS_PROBE_DATA_CACHE	DATETIME
Indx6_IOPS_PROBE_DATA_CACHE	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_CACHE	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_CACHE	PROBENAME

IOPS_PROBE_DATA_DAILY

Index	Field
Indx2_IOPS_PROBE_DATA_DAILY	DATETIME
Indx6_IOPS_PROBE_DATA_DAILY	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_DAILY	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_DAILY	PROBENAME

IOPS_DETAIL_DATA

Index	Field
Indx5_IOPS_DETAIL_DATA	DATETIME
Indx7_IOPS_DETAIL_DATA	PROBENAME
Indx8_IOPS_DETAIL_DATA	CUSTOMER
Indx11_IOPS_DETAIL_DATA	SERVICENAME

IOPS_DETAIL_DATA_HOURLY

Index	Field

Indx5_IOPS_DETAIL_DATA_HOURLY	
Indx7_IOPS_DETAIL_DATA_HOURLY	PROBENAME
Indx8_IOPS_DETAIL_DATA_HOURLY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_HOURLY	SERVICENAME

IOPS_DETAIL_DATA_DAILY

Index	Field
Indx5_IOPS_DETAIL_DATA_DAILY	DATETIME
Indx7_IOPS_DETAIL_DATA_DAILY	PROBENAME
Indx8_IOPS_DETAIL_DATA_DAILY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_DAILY	SERVICENAME



The following tasks are documented for setting up SQL Server 2000 as the database for OVIS. The first section of this procedure covers configuring the SQL server system. The second section covers configuring an ODBC connection as well as Internet Services configuration as an SQL Server account.

Configure the SQL Server system.

- Task 1. Install SQL Server software.
- Task 2. Verify the trust relationship between client and server.
- Task 3. Configure the database on SQL Server.

Configure the ODBC Connection.

- Task 1. Install Internet Services.
- Task 2. Check MDAC Version is 2.71 or greater.
- Task 3. Establish the ODBC connection.
- Task 4. Configure Internet Services to use SQL as the database.

Install & Configure SQL Server Software on Windows Server

If you have already installed SQL Server, you can skip Task #1. If your Internet Services system and the SQL Server system are in the same domain, you can skip task Task #2 and go directly to Task #3.

Prerequisites include: Windows 2000 Service Pack 3 or Windows XP Service Pack 1 and Internet Explorer 5.5 with the latest service pack.

IMPORTANT: With SQL Server 2000, Service Pack 3 is required.

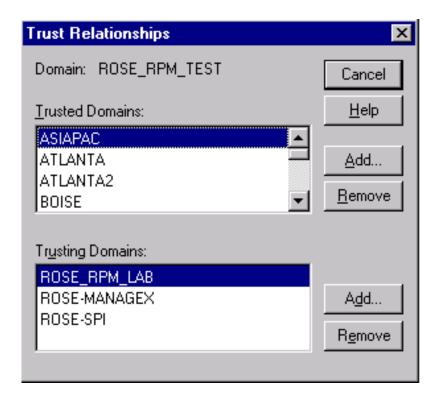
Task 1₱ Install SQL 2000 Server Software

- 1. Insert the SQL Server 2000 CD into the CD-ROM drive.
- 2. Select Install SQL 2000 Components.
- 3. Select Database Server Standard Edition.
- 4. Select **Local Computer** and respond to prompts as they appear.
- 5. Be sure to use **Mixed Mode** for authentication.
- 6. Restart the system.
- 7. Be sure you are on SQL Server 2000 Service Pack 3.
- 8. Restart the system.

Task 2→ Verify Trust Relationship Between Client and Server

Note: A trust relationship should be set up if the Internet Services client and SQL Server are in separate domains in Windows or if the client and server run on mixed systems. If the client and SQL Server are running on Windows 2000, skip this task.

- 1. Log on to the SQL Server-installed system with Administrator privileges.
- 2. From the Start menu select Programs>Administrative Tools>User Manager for Domains.
- 3. From the Policies menu select Trust Relationships.



4. In the Trusting Domains dialog box, look for the Domain where Internet Services is located. If the appropriate domain is displayed, continue to the next task.

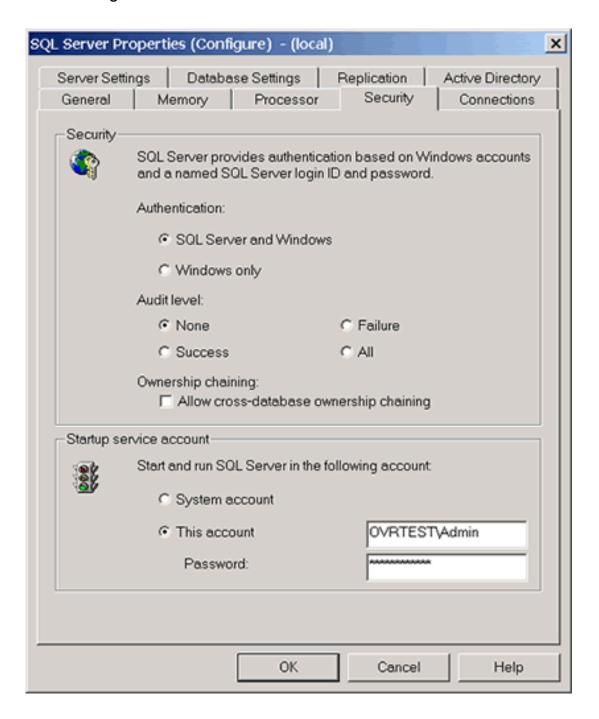
If not, add the trusting domains as needed. If you have questions about trusting domains, click

the **Help** button (if Internet Services and SQL Server systems are in separate domains, you

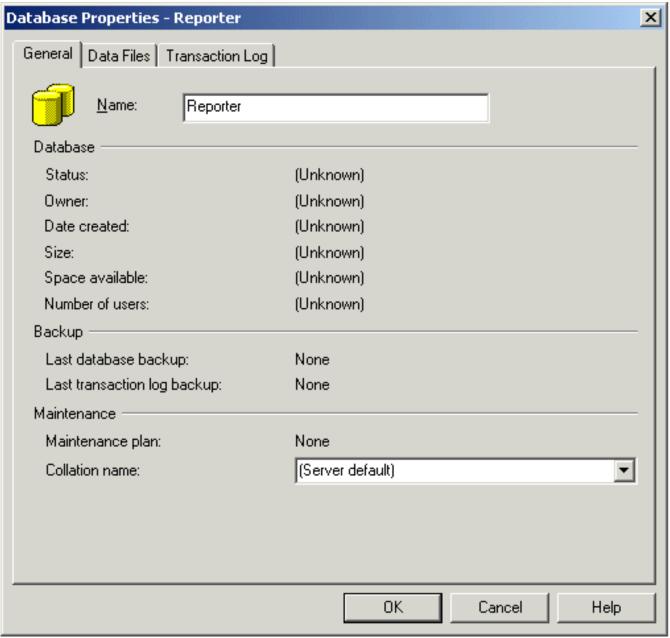
must configure a trust relationship between the systems).

Task 3 → Configure the Database on SQL Server 2000

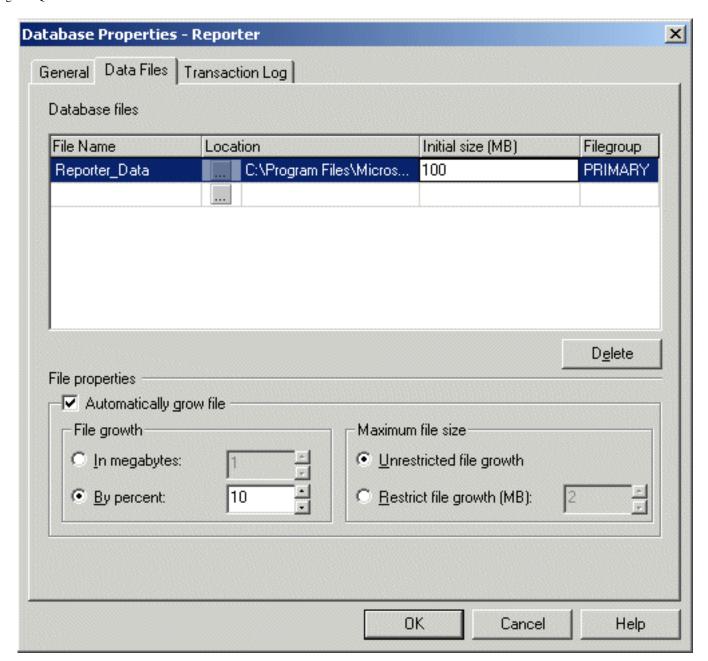
- 1. From the Start menu select Programs>Microsoft SQL Server 2000 >Enterprise Manager.
- 2. In the Microsoft Console Root window, select your SQL Server Group.
- 3. Right click on your SQL Server Group and select **Properties**. Then go to the **Security** Tab and make sure that "SQL Server and Windows" is selected under Authentication in the Security part of the dialog.



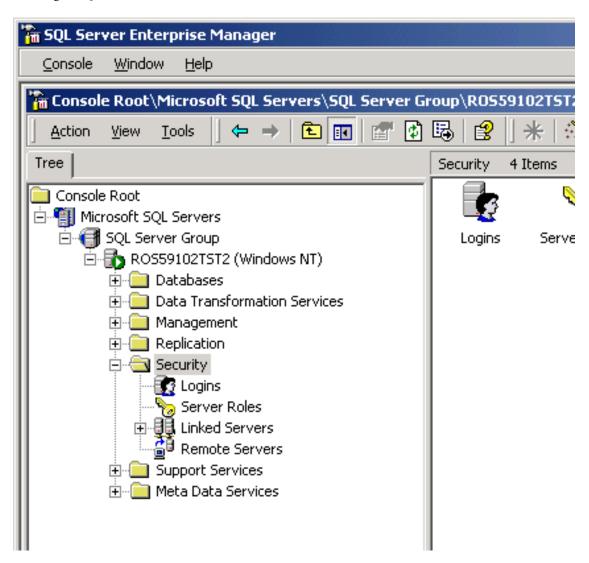
- 4. If your SQL Server system is not listed under the SQL Server Group, right-click SQL Server Group, select **New SQL Server Registration** from the drop-down menu and follow the wizard online steps to register.
- 5. Right-click **Databases New Database**
- 6. In the General tab for the Name box, enter a name for the database (example uses **Reporter** as the name).



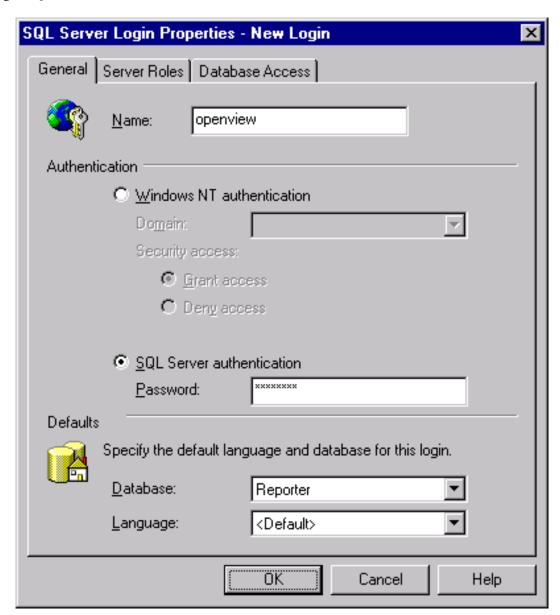
- Note: The SQL Server database no longer needs to be named Reporter.
- 6. Select the Data Files tab and in the Database files segment, in the Initial size (MB) column, enter **100**.
- 7. Click **OK** to close the window.



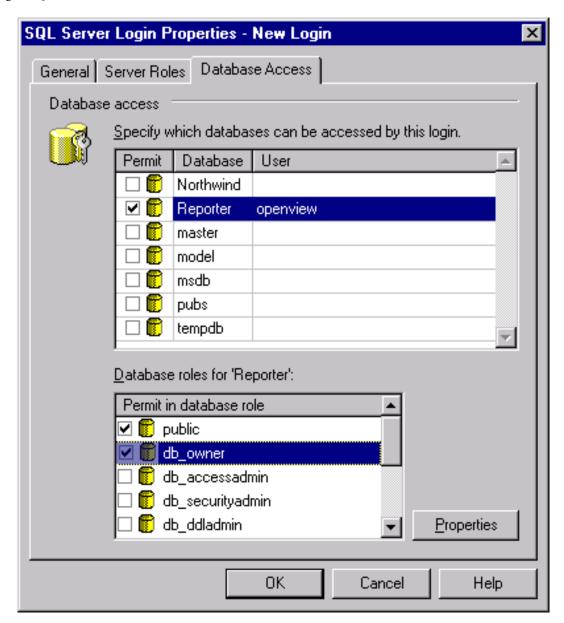
- 8. After the database is created, expand the Security folder in the left pane.
- 9. Right-click **Logins** under the Security folder and select **New Login**...



10. Select General Tab and in the Name box enter the user name **openview** or your specified user.



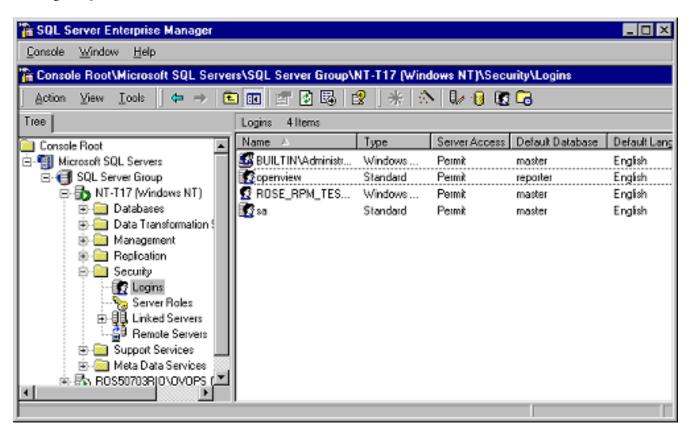
- 11. Under Authentication select the **SQL Server authentication** radio button and enter your password.
- 12. Under the Defaults, select **Reporter** (or whatever the database name is) from the Database list box.
- 13. Select the Database Access tab and under Database access check the Permit box that corresponds to Reporter.
- 14. Under Database roles for Reporter, check **public** and **db owner** and select OK to exit.



15. Confirm the new password from Step 11.



To verify User has Database Access, in the left pane expand the security folder, or click the plus sign next to each item: **Security>Logins** and you should see **openview** in the right pane.



17. Exit Enterprise Manager and go to the client system (where Internet Services is installed).



Configure ODBC Connection

Task 1 → Upgrade or Install Internet Services

1. Install or upgrade Internet Services as needed.

Task 2 → Check MDAC Version is 2.71 or Greater

MDAC is the Microsoft Data Access Component. You need to have an MDAC version of 2.71 or greater on the client system where Internet Services is located. Check the version number as follows:

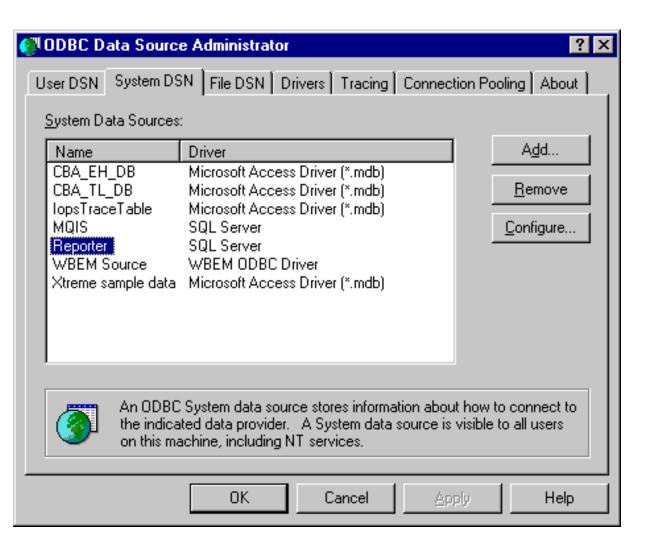
- Run regedit and locate the registry entry: HKEY_LOCAL_MACHINE\Software\Microsoft \DataAccess
- 2. In the Details pane, look in the Name column for FullInstallVer and Version. Each of these keys will have corresponding version information in the Data column.
- 3. If the Data values are 2.71 or greater, skip to the next Task.
- 4. If either of the Data values are less than 2.71.xxx.y, then go to the Microsoft web site and

download and install a current version of MDAC.

Task 3 Establish the ODBC Connection

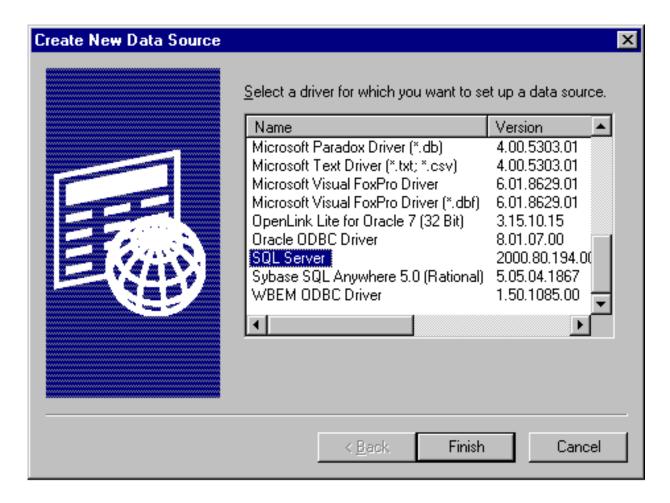
Important Note: Be sure that Internet Services is installed before beginning this step. Also be sure that the Configuration Manager is closed before beginning this step.

- 1. Stop the following services:
 - Reporter Service
 - World Wide Web Publishing Service
- 2. From a command window, stop the OVIS probes with the following command: ovc -stop ovprobes
 - From a command window, stop tomcat with the following command: ovc -stop ovtomcatA
- 3. From the Start menu select **Settings>Control Panel** and double-click **Administrative Tools**. Then double-click **Data Sources (ODBC)**.
- 4. In the ODBC Data Source Administrator window select the **System DSN tab**. Highlight Reporter and select the **Remove** button.

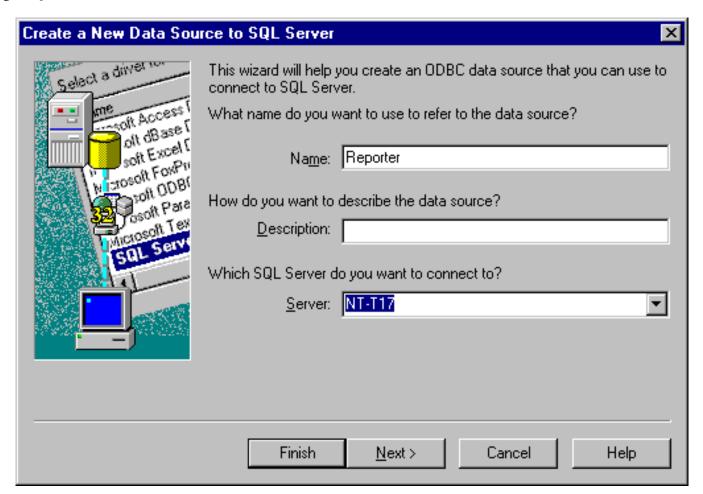


4. Select the **Add...** button to create a new Reporter data source.

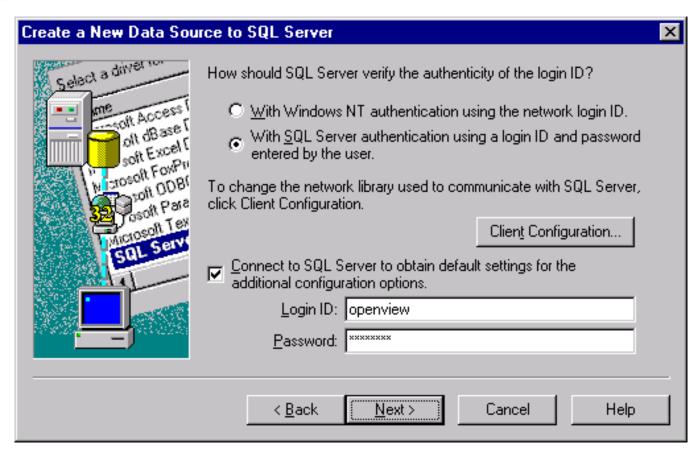
5. In the Create New Data Source dialog box select the **SQL Server** driver and the **Finish** button.



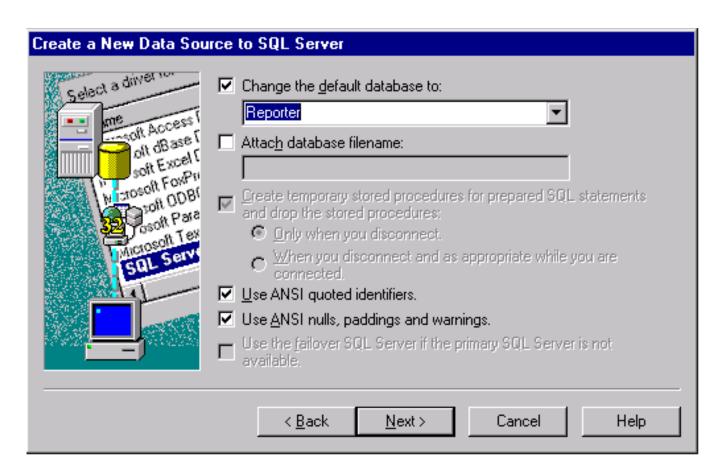
6. In the Create a New Data Source to SQL Server dialog, make sure that Reporter (or whatever the database name is) appears in the data source name box and the **server name appears in the Server box**. Then select **Next**.



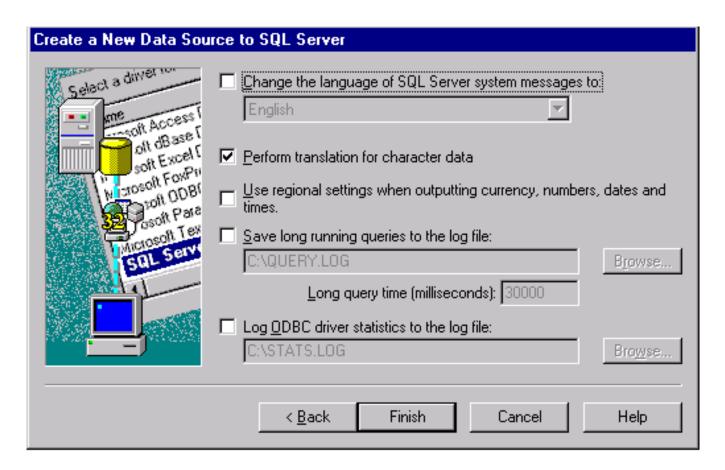
7. Select - With SQL Server authentication using a login ID and password entered by user. Also check the box for Connect to SQL Server to obtain default settings. Enter the login ID and password that you used in the first section Install & Configure SQL Server 2000: Task 3 - Configure the Database on SQL Server 2000 of the previous section. Then select **Next**.



8. Check **Change the default database to,** select **Reporter**, (or whatever the database name is) and click **Next**.



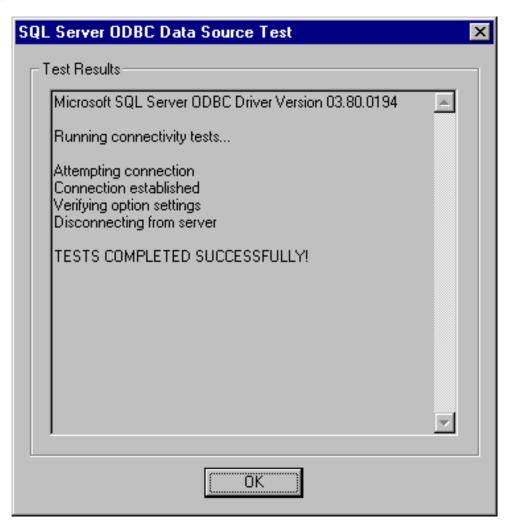
9. Check **Perform translation for character data** and select **Finish**.



10. In the ODBC Microsoft SQL Server Setup dialog select the **Test Data Source...** button.

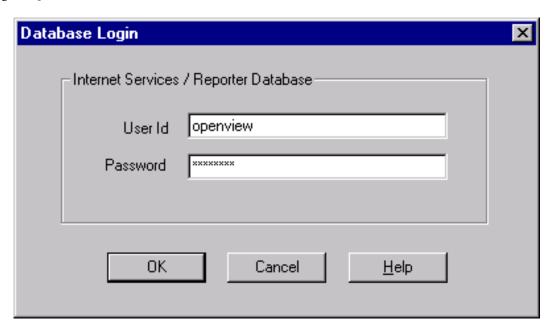


11. Exit the SQL Server ODBC Data Source Test by clicking **OK**.

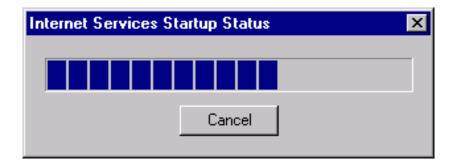


Task 4 Configure Internet Services to use SQL as the Database

- 1. To start OpenView Internet Services Configuration Manager, select Start>Programs>HP OpenView>internet services>Configuration Manager.
- 2. If you see an error message; click **Yes** or **OK** to proceed. The database login may be required, if so see the next step, proceed to step 5.
- 3. In the Database Login dialog box, enter the database User ID and Password that you used for the system configuration.



- 4. Click OK.
- 5. You will see the Internet Services Startup status bars. Then the Configure License dialog may be displayed. Follow the instructions for licensing or click **OK** to continue. Then the main Configuration Manager window displays. You can exit the Configuration Manager.



6. Start the following services:

Reporter Service

World Wide Web Publishing Service

7. From a command window, start the OVIS probes with the following command: ovc -start ovprobes

From a command window, start tomcat with the following command:

ovc -start ovtomcatA



2 Set Up Microsoft SQL Server 2005 as the Database



Overview

This section contains instructions to setup Microsoft SQL Server 2005 as the database for HP OpenView Internet Services (OVIS).

When upgrading from MSDE to SQL Server 2005 you can upgrade to SQL Server 2005 Express Edition or upgrade to SQL Server 2005 Workgroup Edition. Follow the instructions provided by Microsoft and choose the OVOPS instance to upgrade. An example of an upgrade from MSDE to SQL Server 2005 Express Edition is provided.

The instructions for changing to a new SQL Server 2005 database (rather than upgrading from MSDE) are documented in this section. These instructions could be used when installing SQL Server 2005 on a remote system.

<u>A</u> Do not connect multiple copies of Internet Services to the same database as unexpected results occur when more than one copy of OVIS attempts to write data to the configured database.

Migration of data from your old database to the new SQL Server database is not supported for Internet Services (OVIS). And if OVIS is on the same system as hp OpenView Reporter, attempting to migrate Reporter data to the new database may result in problems in OVIS.

IMPORTANT: If you use systems with different language settings, the OVIS Reporter database should be created using the same default locale character set as the system where OVIS is installed (Management Server). At this time, OVIS does not support databases that have been configured to use the UTF-8 character set.

NOTE:

- Before installing Microsoft SQL Sever, consult with a Database Administrator (DBA). A database administrator can help you design and set up the database, including the creation of the tablespaces, for optimal use by OVIS.
- Before installing Microsoft SQL Server, refer to Microsoft documentation for recommended settings.

Database Performance Note:

Adding indexes can improve performance. With OVIS 5.2 indexes were added to the following tables. Consult your DBA for a maintenance plan for these indexes.

IOPS PROBE DATA

Index	Field
Indx2_IOPS_PROBE_DATA	DATETIME

Indx6_IOPS_PROBE_DATA	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA	SERVICE_NAME
Indx25_IOPS_PROBE_DATA	PROBENAME

IOPS_PROBE_DATA_CACHE

Index	Field
Indx2_IOPS_PROBE_DATA_CACHE	DATETIME
Indx6_IOPS_PROBE_DATA_CACHE	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_CACHE	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_CACHE	PROBENAME

IOPS_PROBE_DATA_DAILY

Index	Field
Indx2_IOPS_PROBE_DATA_DAILY	DATETIME
Indx6_IOPS_PROBE_DATA_DAILY	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_DAILY	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_DAILY	PROBENAME

IOPS_DETAIL_DATA

Index	Field
Indx5_IOPS_DETAIL_DATA	DATETIME
Indx7_IOPS_DETAIL_DATA	PROBENAME
Indx8_IOPS_DETAIL_DATA	CUSTOMER
Indx11_IOPS_DETAIL_DATA	SERVICENAME

IOPS_DETAIL_DATA_HOURLY

Index	Field
Indx5_IOPS_DETAIL_DATA_HOURLY	DATETIME
Indx7_IOPS_DETAIL_DATA_HOURLY	PROBENAME
Indx8_IOPS_DETAIL_DATA_HOURLY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_HOURLY	SERVICENAME

IOPS_DETAIL_DATA_DAILY

Index	Field
Indx5_IOPS_DETAIL_DATA_DAILY	DATETIME

Indx7_IOPS_DETAIL_DATA_DAILY	PROBENAME
Indx8_IOPS_DETAIL_DATA_DAILY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_DAILY	SERVICENAME

The following tasks are documented for setting up SQL Server 2005 as the database for OVIS:

- Install Microsoft SQL 2005 Server Software
- Configure Microsoft SQL Server 2005 as the Database for OVIS
- Configure ODBC Connection

In addition the following upgrade task is documented at the end of this chapter:

Upgrading from MSDE 2000 to SQL Express 2005

Install Microsoft SQL 2005 Server Software

Before installing Microsoft SQL Server Software, for system requirements and other information, refer to the product documentation available online at: http://www.microsoft.com/sql/default.mspx

- 1. Insert the Microsoft SQL Server 2005 CD into your CD-ROM drive.
- 2. Select to install MS SQL Server 2005.
- 3. The installation wizard appears. The examples in this document are for the SQL Server 2005 Enterprise Edition.
- 4. In the Components to Install dialog, select SQL Server Database Services and select Workstation Components, Books Online and development tools this is needed to run SQL Server Management Studio. Click Next.
- 5. In the Instance Name dialog, select **Named Instance** and enter or select an instance name. Click **Next**.
- 6. In the Service Account dialog, select **Use a domain user account** and enter the user name, password and domain. Click **Next**.
- 7. In the Authentication Mode dialog, select **Mixed Mode (Windows Authentication and SQL Server Authentication)** for authentication and enter the system administrator (sa) password. Click **Next**.
- 8. Accept the defaults in the other dialogs as appropriate.
- 9. Select the Install button.
- 10. Restart your system after the installation is complete.

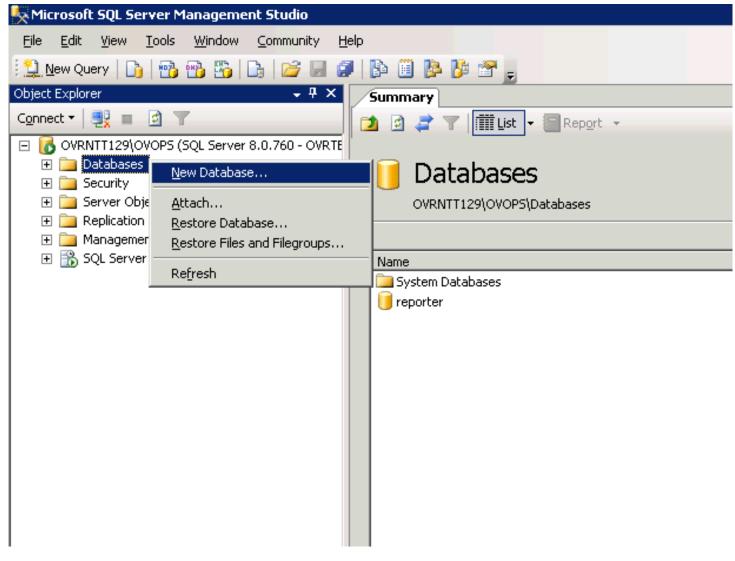
Configure Microsoft SQL Server 2005 as the Database for OVIS

To configure Microsoft SQL Server 2005 as the database for OVIS, do the following:

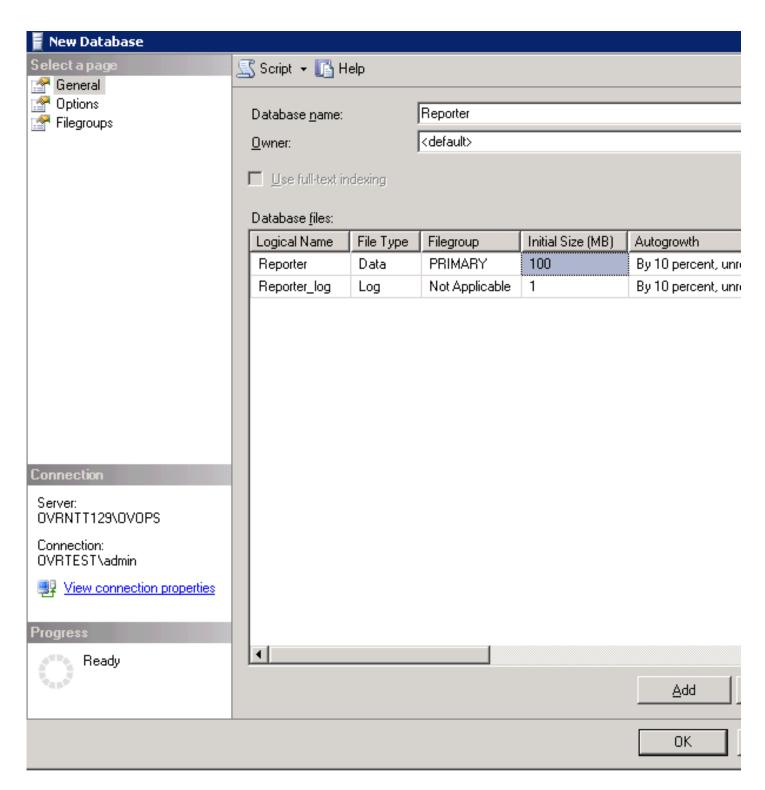
- 1. From the Start menu on the system with SQL Server 2005 installed, select **Start** -> **Programs** -> **Microsoft SQL Server 2005** -> **SQL Server Management Studio**.
- 2. Enter your **Login** name and **Password**. In the Connect to Server dialog, select the Server Name and Windows Authentication and click **Connect**.



3. the Microsoft SQL Server Management Studio window appears.



4. From the left pane of **Microsoft SQL Server Management Studio** window, right-click **Databases**, and select **New Database**. The **New Database window** appears.



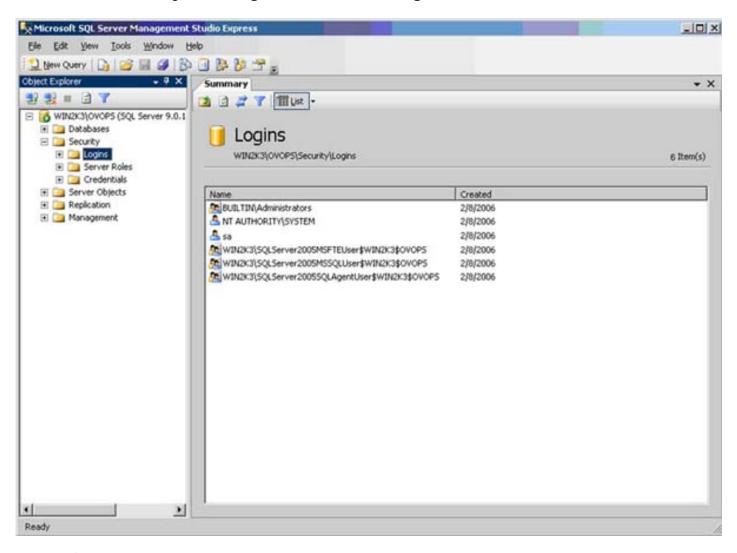
5. In the New Database window, enter a name for the database in the **Database name** text box (Example: Reporter as shown in the screen shot).

When you create a new database, the following files will be automatically created:

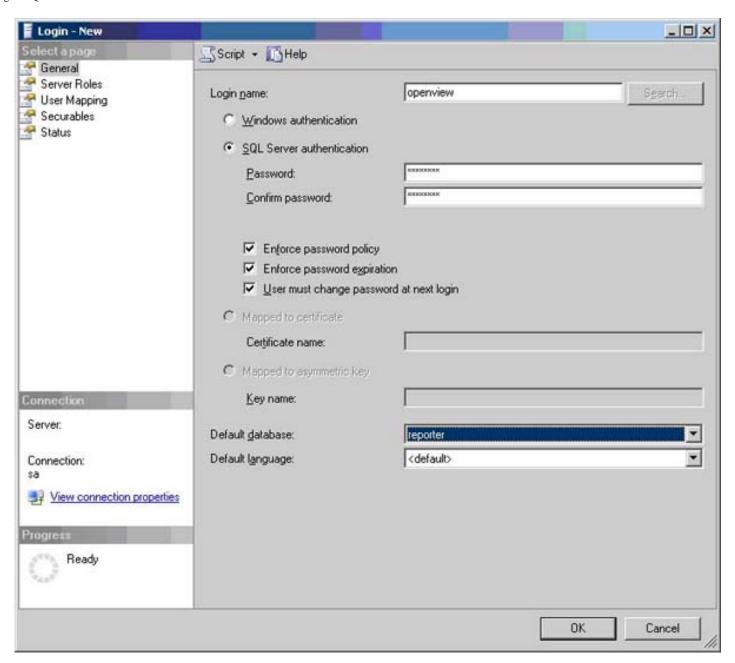
- a data file with the logical name same as the database name you specified (Example: Reporter as shown in the screen shot).
- a log file with the logical name same as the database name followed by _log (Example: Reporter_log as shown in the screen shot).

The database files are displayed in the **Database files** section, specify the value of the **Initial Size (MB)** of database file as 100 MB and log file as the default value which appears. Click **Ok**, to close the **New Database** window.

6. In the Microsoft SQL Server Management Studio main window, from the left pane click **Security** to display the subitems in the tree. Right-click **Logins** and select **New Login**.



7. The **Login - New** window is displayed.



8. In the Login - New window left pane under **Select a Page**, click **General**.

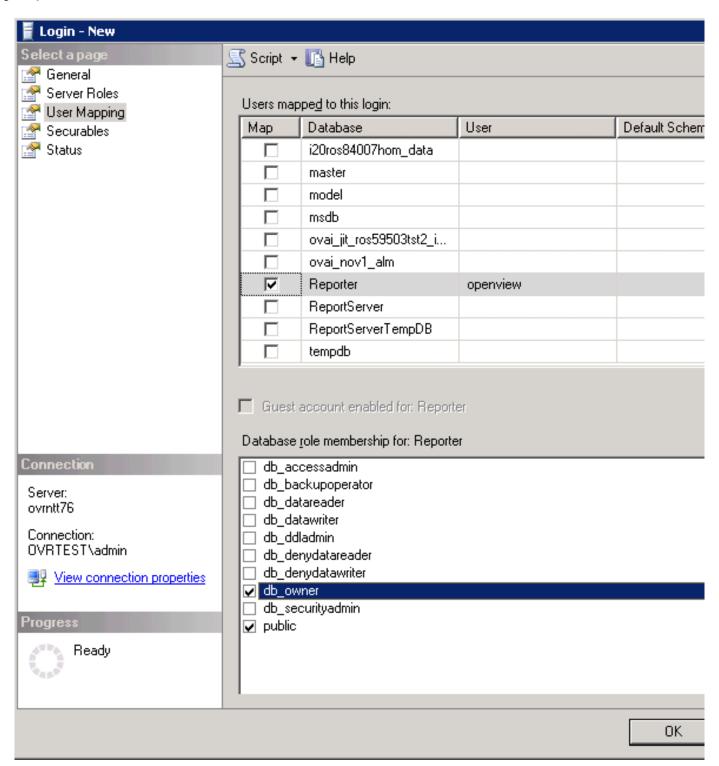
Enter the Login name, for example openview.

Select **SQL Server authentication** and enter the password.

Uncheck the option Enforce password policy.

Select the **Default database** of Reporter from the drop-down list.

9. In the Login-New window left pane under Select a Page, click User Mapping.



10. From the Users mapped to this login section, select the Map corresponding to your database Reporter

Under Database roles membership for: Reporter, select db_owner and public. Click OK.

Exit out of the SQL Server 2005 Management Studio. The Microsoft SQL server 2005 database is now configured as the database for OVIS.

Go to the client system where OVIS is installed to configure an ODBC connection to the SQL Server 2005 database.

Configure ODBC Connection

Task 1 → Upgrade or Install Internet Services

1. Install or upgrade Internet Services as needed.

Task 2 Check MDAC Version is 2.71 or Greater

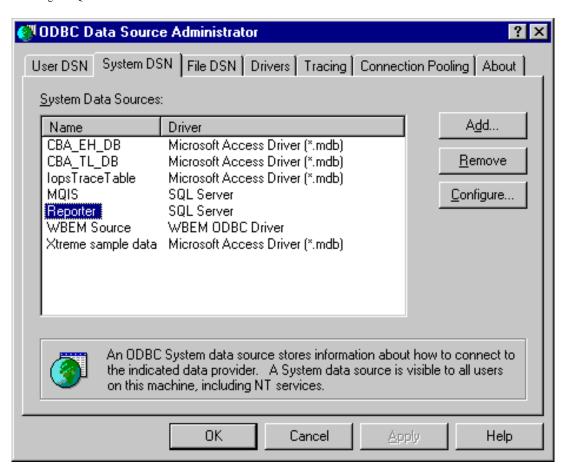
MDAC is the Microsoft Data Access Component. You need to have an MDAC version of 2.71 or greater on the client system where Internet Services is located. Check the version number as follows:

- 1. Run regedit and locate the registry entry: HKEY_LOCAL_MACHINE\Software\Microsoft\DataAccess
- 2. In the Details pane, look in the Name column for FullInstallVer and Version. Each of these keys will have corresponding version information in the Data column.
- 3. If the Data values are 2.71 or greater, skip to the next Task.
- 4. If either of the Data values are less than 2.71.xxx.y, then go to the Microsoft web site and download and install a current version of MDAC.

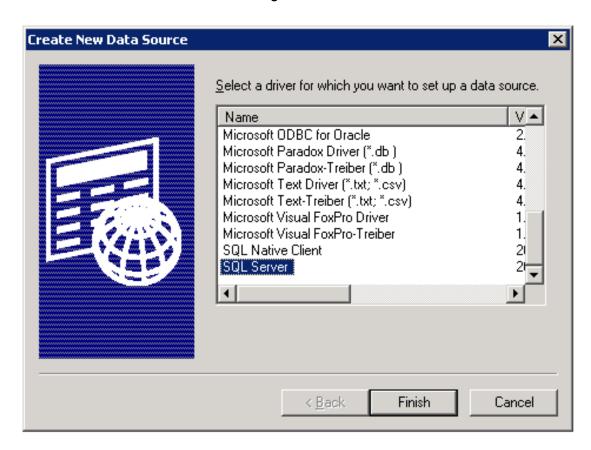
Task 3 Establish the ODBC Connection

Important Note: Be sure that Internet Services is installed before beginning this step. Also be sure that the OVIS Configuration Manager is closed before beginning this step.

- 1. Stop the following services:
 - Reporter Service
 - World Wide Web Publishing Service
- 2. From a command window, stop the OVIS probes with the following command:
 - ovc -stop ovprobes
 - From a command window, stop tomcat with the following command:
 - ovc -stop ovtomcatA
- 3. From the Start menu select **Settings>Control Panel** and double-click **Administrative Tools**. Then double-click **Data Sources (ODBC)**.
- 4. In the ODBC Data Source Administrator window select the **System DSN tab**. Highlight Reporter and select the **Remove** button.

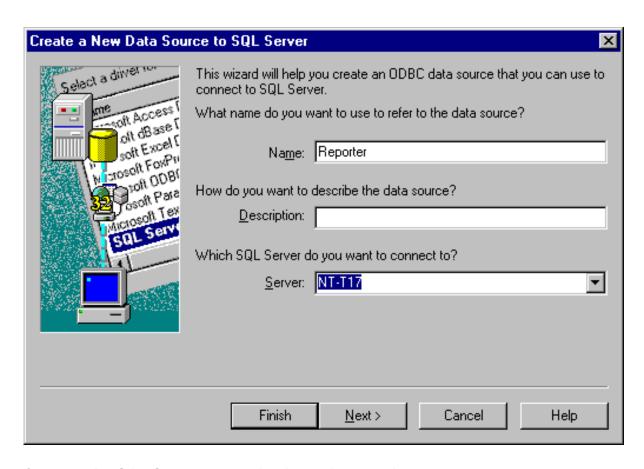


- 4. Select the Add... button to create a new Reporter data source.
- 5. In the Create New Data Source dialog box select the **SQL Server** driver and the **Finish** button.



6. In the Create a New Data Source to SQL Server dialog, make sure that Reporter (or whatever the database

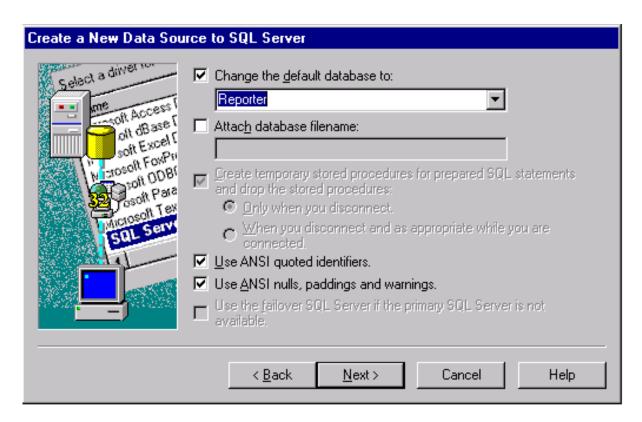
name is) appears in the data source name box and the server name appears in the Server box. Then select Next.



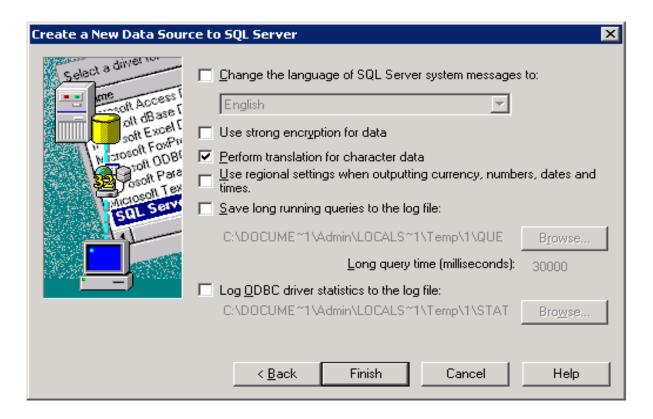
7. Select - With SQL Server authentication using a login ID and password entered by user. Also check the box for Connect to SQL Server to obtain default settings. Enter the login ID and password that you used in installing the SQL Server 2005 software. Then select **Next**.

Create a New Data Source to SQL Server Select a driver How should SQL Server verify the authenticity of the login ID? soft Access With Windows NT authentication using the network login ID. 1 sze Ab Na With <u>SQL</u> Server authentication using a login ID and password soft Excel C entered by the user. crosoft FoxPri 1800 flor To change the network library used to communicate with SQL Server, osoft Para click Client Configuration. icrosoft Tex Client Configuration... Connect to SQL Server to obtain default settings for the additional configuration options. Login ID: openview Password: Next> < Back Cancel Help

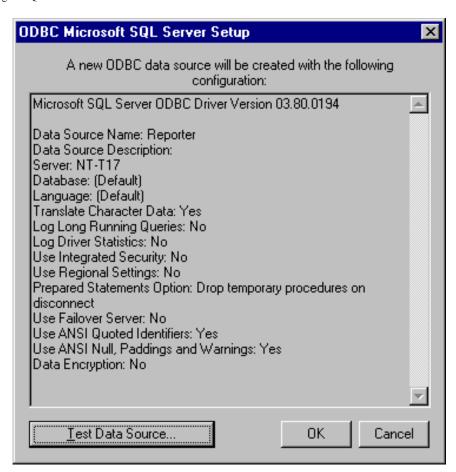
8. Check Change the default database to, select Reporter, (or whatever the database name is) and click Next.



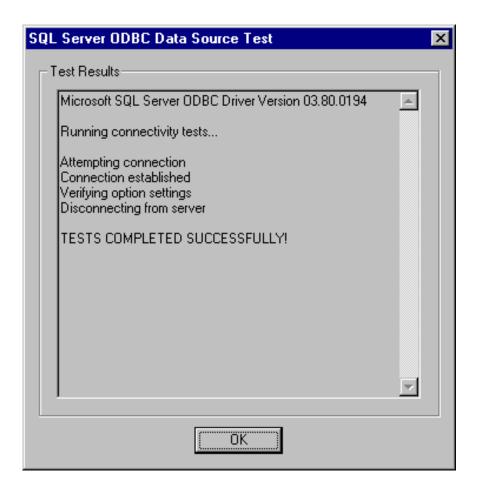
9. Check Perform translation for character data and select Finish.



10. In the ODBC Microsoft SQL Server Setup dialog select the **Test Data Source...** button.

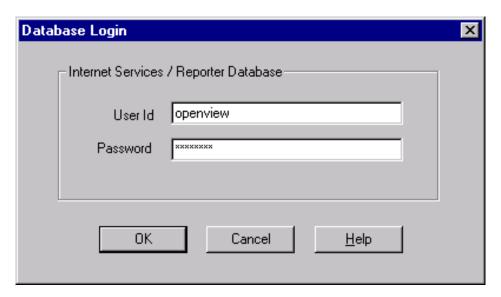


11. Exit the SQL Server ODBC Data Source Test by clicking **OK**.

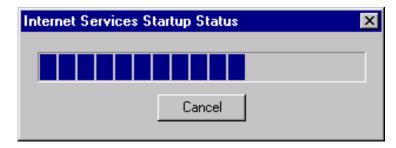


Task 4 Configure Internet Services to use SQL as the Database

- To start OpenView Internet Services Configuration Manager, select Start>Programs>HP OpenView>internet services>Configuration Manager.
- 2. If you see an error message; click **Yes** or **OK** to proceed. The database login may be required, if so see the next step, proceed to step 5.
- 3. In the Database Login dialog box, enter the database User ID and Password that you used for the system configuration.



- 4. Click OK.
- 5. You will see the Internet Services Startup status bars. Then the Configure License dialog may be displayed. Follow the instructions for licensing or click **OK** to continue. Then the main Configuration Manager window displays. You can exit the Configuration Manager.



6. Start the following services:

Reporter Service

World Wide Web Publishing Service

7. From a command window, start the OVIS probes with the following command: ovc -start ovprobes

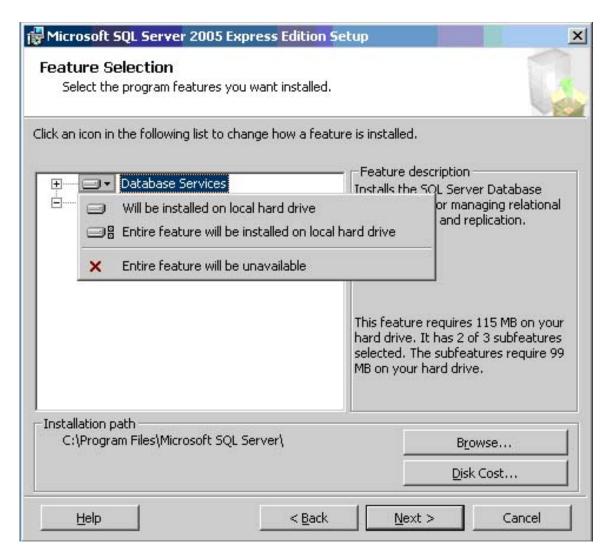
From a command window, start tomcat with the following command:

ovc -start ovtomcatA

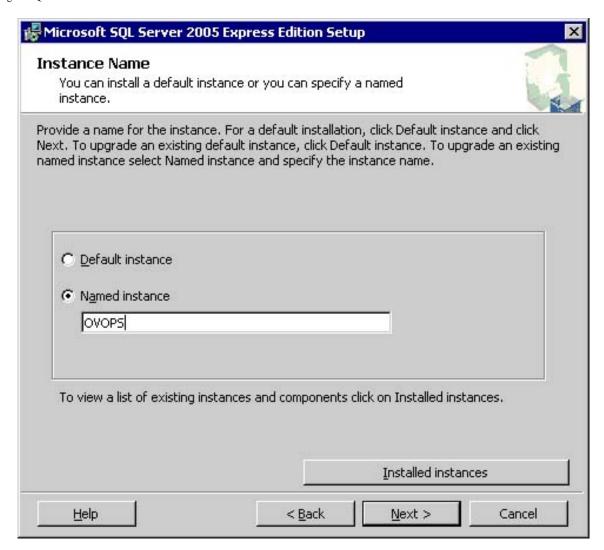
If you want to upgrade from MSDE 2000 to SQL Server 2005 Enterprise Edition you will need to first upgrade from the default database MSDE 2000 to Microsoft SQL Express 2005. Then you can upgrade from SQL Express 2005 to SQL Server 2005 Enterprise Edition. The following section gives and example of an upgrade from MSDE to SQL Express 2005.

NOTE: OVIS data is not migrated from the default database to SQL Express 2005.

- Begin installing SQL Express 2005 on the system with MSDE (double-click the file SQLEXP2005.exe). You
 can download the software from the Microsoft Download Center. The Microsoft Download Center also
 provides information about the hardware and software requirements and instruction for installing and setting
 up SQL Express 2005.
- 2. Complete the license agreement and registration information. Clear the **Hide advanced configuration options** checkbox and click **Next**. The Feature Selection screen is displayed.



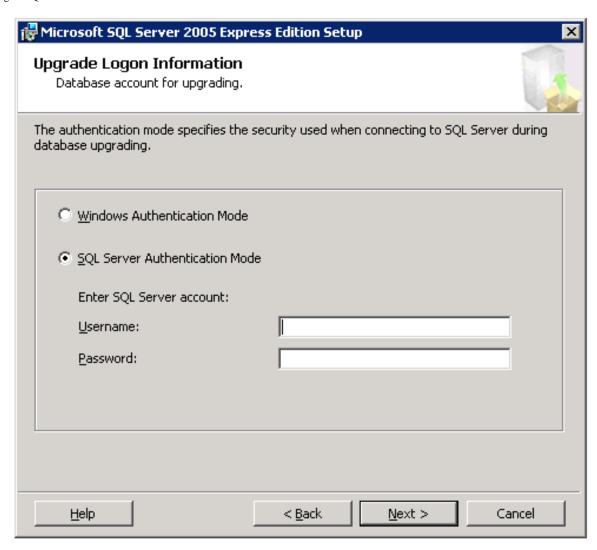
- 3. Click **Database Services**. From the drop-down menu select **Entire feature will be installed on local hard** drive. Click **Next**.
- 4. The **Instance Name** window appears. The Named Instance should be OVOPS or whatever database you set up orginally in MSDE.



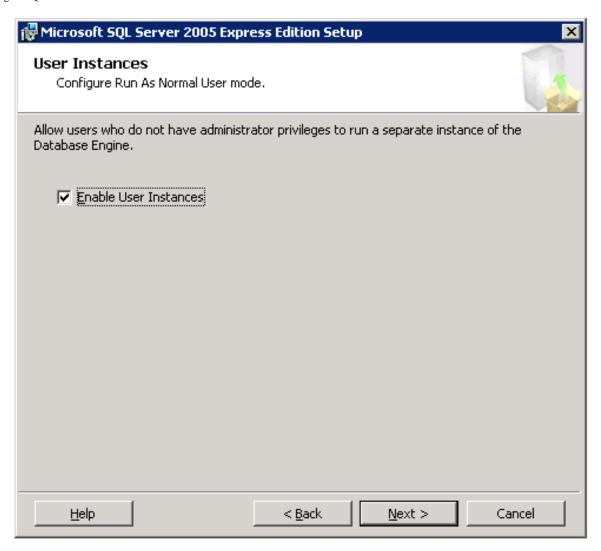
5. Click **Installed Instances**, the **Existing Components** window appears. Select the **Details** button to confirm that an upgrade is allowed. Click **Next**.



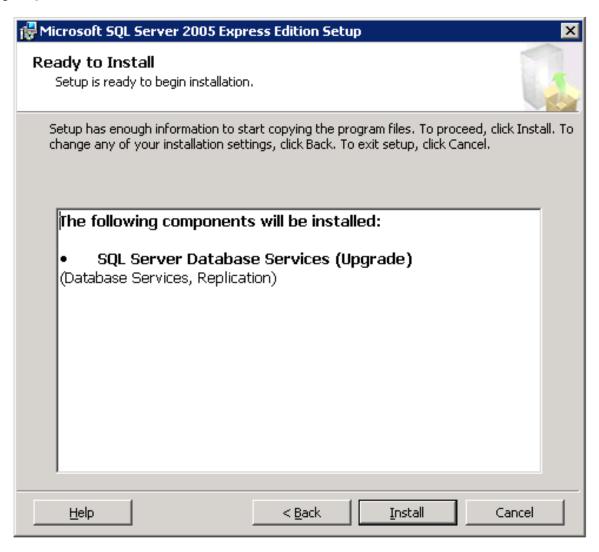
6. In the Upgrade Logon Information window, select **SQL Server Authentication Mode** and enter the username and password for the SA account. Click **Next**.



7. In the User Instances windows, select **Enable User Instances** and click **Next**.



8. Accept the defaults on the rest of the wizard windows. Click the **Install** button on the Ready to Install window.



9. The database will now be upgraded from MSDE 2000 to SQL Express 2005.





Setup Oracle as the Database



Internet Services can be configured to work with Oracle as its database. The topics below cover several versions of Oracle.

△ IMPORTANT: Note that screen examples and steps may be different than documented in the following sections if your operating system or version is different than the one used in the example.

IMPORTANT: An Oracle DBA should be involved in creating the database, particularly for configuration issues like database sizing and AUTOEXTEND of datafiles.

⚠ **IMPORTANT**: Do not connect multiple copies of Internet Services to the same database as unexpected results occur when more than one copy of OVIS attempts to write data to the configured database.

⚠ IMPORTANT: Migration of data from a different database to a new Oracle database is not supported for Internet Services (OVIS). And if OVIS is on the same system as hp OpenView Reporter, attempting to migrate data to the new database with Reporter may result in problems in OVIS.

- UNIX Settings
- Configure Oracle 9i (HP-UX or Solaris) as the database
- Configure Oracle 10g (HP-UX or Solaris) as the database

3UNIX Settings

For Oracle Database Setup on UNIX / Setting UNIX Environment Variables



This document shows settings for a custom database configuration

Note: Because a successful Oracle configuration is dependent upon correct kernel parameter settings, check your HP-UX or Solaris system kernel parameters (see the Oracle Installation Guide and other Oracle documentation for these parameters). Some kernel parameters you may want to look at for HP-UX include: maxdsiz, maxfiles, maxssiz, maxuprc, nfile, nproc, semmni, semmns, shmmax, shmmni, shmseg. And on Solaris you may want to check the following shared memory parameters: shminfo_shmmax, shminfo_shmmin, shminfo_shmmni, shminfo_shmseg, seminfo_semmns, seminfo_semmni, seminfo_semmsl. Make changes to kernel parameters as needed. IMPORTANT! To activate kernel parameter changes to settings, you must reboot your system.

New Oracle Installations

- 1. You must be logged on as root or su
- 2. Set UNIX environment variables as follows:

ORACLE_BASE – set to admin pathname default (/opt/oracle)

ORACLE_SID - set to the database name you want to create (REPORTER)

ORACLE_HOME - set to full pathname of the Oracle system home directory (for example /opt/oracle/product/8.1.7)

ORACLE_TERM – set to the appropriate value (hpterm, etc...)

PATH - needs to include \$ORACLE_HOME/bin

UMASK = 022

Existing Oracle Installations

Verify that the following HP-UX environment variables are set:

ORACLE_BASE – set to admin pathname default (/opt/oracle)

ORACLE_SID - set to the database name you want to create (REPORTER)

ORACLE_HOME - set to full pathname of the Oracle system home directory (for example /opt/oracle/product/8.1.7)

ORACLE_TERM – set to the appropriate value (hpterm, etc...)

PATH - needs to include \$ORACLE_HOME/bin



Setup Oracle as the Database

Configure Oracle 9i as the Database



Set Up Oracle 9i on HP-UX or Solaris and Configure on Windows

⚠ IMPORTANT: If HP OpenView Internet Services and hp OpenView Reporter are installed on the same system, migration of your OVIS/Reporter data from your existing database to Oracle 9i is not supported.

Prerequisites: Because a successful Oracle configuration is dependent upon correct kernel parameter settings, check your HP-UX or Solaris system kernel parameters (see the Oracle 9i Installation Guide and other Oracle documentation for these parameters). Some kernel parameters you may want to look at for HP-UX include: maxdsiz, maxfiles, maxssiz, maxuprc, nfile, nproc, semmni, semmns, shmmax, shmmni, shmseg. And on Solaris you may want to check the following shared memory parameters: shminfo_shmmax, shminfo_shmmni, shminfo_shmseg, seminfo_semmns, seminfo_semmni, seminfo_semmsl.

Ensure you have the following available:

- Memory: 512 MB RAM minimum
- Swap space: disk space equivalent to the greater of 2*RAM, or at least 512 MB
- CD-ROM: capable of reading ISO 9660 format with RockRidge extensions
- Disk space: 3.69 GB for database software; 1 GB for database
- Temp disk space: 400MB in /tmp directory
- HP-UX 11.0 (64-bit) or HP-UX 11i (64-bit) or Solaris 7 (2.7), 8 or 9
- Operating system patches (detail in the Oracle9i Release Notes)
- JAVA components (detailed in the Oracle9i Release Notes)
- HP-UX note: an important pre-installation step is required relating to X library symbolic links

Oracle Documentation: The documents can be found on the Oracle9i Database CD-ROMs. To access them, mount Disk 1 of the Oracle9i Database CD-ROM and open the index.html. Oracle also provides online resources for documentation at the Oracle Documentation Center (docs.oracle.com) and the Oracle Technology Network (otn.oracle.com/docs/). For Oracle-specific information, please check the following:

- Oracle9i Installation Guide
- Oracle9i Quick Installation Procedure
- Oracle9i Release Notes

created using the same default locale character set as the system where OVIS is installed (Management Server). At this time, OVIS does not support databases that have been configured to use the UTF-8 character set.

Database Performance Note:

Adding indexes can improve performance. With OVIS 5.2 indexes were added to the following tables. Consult your DBA for a maintenance plan for these indexes.

IOPS_PROBE_DATA

Index	Field
Indx2_IOPS_PROBE_DATA	DATETIME
Indx6_IOPS_PROBE_DATA	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA	SERVICE_NAME
Indx25_IOPS_PROBE_DATA	PROBENAME

IOPS_PROBE_DATA_CACHE

Index	Field
Indx2_IOPS_PROBE_DATA_CACHE	DATETIME
Indx6_IOPS_PROBE_DATA_CACHE	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_CACHE	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_CACHE	PROBENAME

IOPS_PROBE_DATA_DAILY

Index	Field
Indx2_IOPS_PROBE_DATA_DAILY	DATETIME
Indx6_IOPS_PROBE_DATA_DAILY	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_DAILY	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_DAILY	PROBENAME

IOPS_DETAIL_DATA

Index	Field
Indx5_IOPS_DETAIL_DATA	DATETIME
Indx7_IOPS_DETAIL_DATA	PROBENAME
Indx8_IOPS_DETAIL_DATA	CUSTOMER
Indx11_IOPS_DETAIL_DATA	SERVICENAME

IOPS_DETAIL_DATA_HOURLY

Index	Field
	DATETIME
Indx7_IOPS_DETAIL_DATA_HOURLY	PROBENAME
Indx8_IOPS_DETAIL_DATA_HOURLY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_HOURLY	SERVICENAME

IOPS_DETAIL_DATA_DAILY

Index	Field
Indx5_IOPS_DETAIL_DATA_DAILY	DATETIME
Indx7_IOPS_DETAIL_DATA_DAILY	PROBENAME
Indx8_IOPS_DETAIL_DATA_DAILY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_DAILY	SERVICENAME

Configuration steps are divided into two sets of tasks as follows:

Server setup for Oracle9i on HP-UX or Solaris system:

- Prepare the UNIX environment
- Mount the installation CD
- Install Oracle9i Database Server software
- Configure a database listener
- Create the Reporter database structure
- Create the Reporter database user and privileges

Client setup for Oracle9i on Windows OVIS system:

- Install Oacle9i client software
- Configure the Oracle Net connection
- Verify the Oracle Net connection
- Configure the ODBC data source
- Configure the database in OVIS

Server Set Up for Oracle 9i on HP-UX or Solaris

Task 1 → Prepare the UNIX Environment

1. Create the Oracle UNIX groups:

HP-UX: use the System Administrator's Manager (SAM) to create groups

Solaris: use the admintool or groupadd utility to create groups

- a. Log in as the root user.
- b. Create UNIX group "dba" (The OSDBA group)
- c. Create UNIX group "oper" (The OSOPER group)
- d. Create UNIX group "oinstall" (The ORAINVENTORY group)

HP-UX note: See the Oracle9i Quick Installation Procedure for the special privileges that should be assigned to the OSDBA group.

2. Create the UNIX user "oracle":

HP-UX: use the System Administrator's Manager (SAM) to create accounts

Solaris: use the admintool or useradd utility to create accounts.

Create UNIX user "oracle" (This account is for Oracle software installation and upgrading only)

- Primary group: oinstall (The ORAINVENTORY group)
- Secondary group: dba (The OSDBA group)

An example on HP-UX of creating a secondary user: In SAM go to the dba group and add oracle as a user.

Create UNIX user "apache"

- Primary group: oinstall (The ORAINVENTORY group)
- Secondary group: group in which apache is only member.
 Do this by creating an apache group and add apache as the only user. The Apache account should have minimum privileges.
- 3. Create mount points for Oracle database software
 - a. Enter: cd /opt
 - b. Enter: chown -R oracle:oinstall oracle
 - c. Make sure a local bin directory such as /usr/local/bin or /opt/bin exists.
 - d. Set UNIX system and Oracle environment variables (add to .profile or set manually)

DISPLAY=<workstation name>:0.0 (where you want output from Oracle installer displayed)

ORACLE BASE=/opt/oracle

ORACLE HOME=/opt/oracle/product/9.2

ORACLE SID=reporter

PATH includes \$ORACLE_HOME/bin, /usr/ccs/bin, /usr/bin, /etc, (/usr/bin/X11 for HP-UX), (/usr/openwin/bin for Solaris), and /usr/local/bin (if it exists)

Example of .profile for HP-UX:

```
# Oracle Environment
```

ORACLE BASE=/opt/oracle; export ORACLE BASE

ORACLE HOME=/opt/oracle/product/9.2; export ORACLE HOME

ORACLE_SID=reporter; export ORACLE_SID

ORACLE TERM=xterm; export ORACLE TERM

TNS_ADMIN=/export/home/oracle/config/9.2; export TNS_ADMIN
NLS_LANG=AMERICAN_AMERICA.UTF8; export NLS_LANG
ORA_NLS33=\$ORACLE_HOME/ocommon/nls/admin/data; export ORA_NLS33
LD_LIBRARY_PATH=\$ORACLE_HOME/lib:/lib:/lib:/usr/lib:\$ORACLE_HOME/rdbms/lib
SHLIB_PATH=\$ORACLE_HOME/lib32:\$ORACLE_HOME/rdbms/lib32
export LD_LIBRARY_PATH
export SHLIB_PATH

#set shell search paths

PATH=/bin:/usr/bin:/usr/sbin:/etc:/opt/bin:/usr/ccs/bin:/usr/local/bin:\$ORACLE_HOME/bin export PATH

#CLASSPATH must include the following JRE locations: CLASSPATH=\$ORACLE_HOME/JRE:\$ORACLE_HOME/jlib:\$ORACLE_HOME/rdbms/jlib CLASSPATH=\$CLASSPATH:\$ORACLE_HOME/network/jlib

Task 2 Mount the Installation CD

For HP-UX:

1. Edit the /etc/pfs_fstab file to add the following:

<device_file> <mount_point> <filesystem_type> <translation_method>

Definitions of the above syntax:

- <device file> = CD-ROM device file (discover with ioscan -nFC disk)
- <mount_point> = path name of the mount point
- <filesystem_type> = CD-ROM is in IS09660 format, Rockridge extension
- <translation_method> = unix

For example:

/dev/dsk/c1t2d0 /CDROM pfs-rrip xlat=unix 0 0

2. Perform the following steps as the root user:

Enter: /usr/sbin/pfs_mountd & (Note:pfs creates the correct format to read the CD)

Enter: /usr/sbin/pfsd &

3. Insert the CD into the CD-ROM and mount the device as follows:

/usr/sbin/pfs_mount /CDROM

Leave the root user window available for executing a script during installation.

For Solaris:

If you are using Volume Management software (available by default on Solaris) the CD-ROM is mounted automatically to /cdrom/orcl901_1 when you put it into the disk drive.

If you are not using the Volume Management software, you must mount the CD-ROM manually.

1. Place the Oracle 9i CD-ROM in the CD-ROM drive.

2. Log in as the root or **su** u**ser** and create a CD-ROM mount point directory:

\$ su root

mkdir cdrom_mount_point_directory

3. Mount the CD-ROM drive on the mount point directory and exit:

mount option device_name cdrom_mount_point_directory
exit

Task 3 → Install Oracle 9i Database Server Software

- 1. Log in to the Oracle account.
- 2. Launch the Oracle Universal Installer by typing the full path to the installer executable.

△ Warning don't launch the installer from within the CDROM directory or you won't be able to mount multiple CDs.

Example:

/cdrom/oracle9i/runInstaller or /CDROM/runInstaller.

- 3. For first-time Oracle9i installations the Welcome window appears, where you click **Next**.
- 4. In the File Locations window do not change the text in the source field and click **Next**.
- 5. In the Inventory Location window enter ORACLE HOME directory name and path and click **Next**.
- 6. You may have to run a script if pre-installation tasks were not completed.
- 7. In the Available Products window select **Oracle9i Database** (version 9.2.0.1.0 was used for these instructions and screen shots) and click **Next**.
- In the Installation Types window select Enterprise Edition.
 (Alternatively you can select the Standard Edition; see Oracle documentation for differences between these installation types.) Click Next.
- 9. In the Database Configuration Window select **Software Only** and click **Next**.
- 10. In the Choose JDK Home Directory Window enter the appropriate location and click **Next**.
- 11. Review the Summary Window and click **Install**. (When the Install window appears, wait as the product is installed.)
- 12. When the Setup Privileges window appears, run the script if instructed.
- 13. In the End of Installation window select **Exit**.

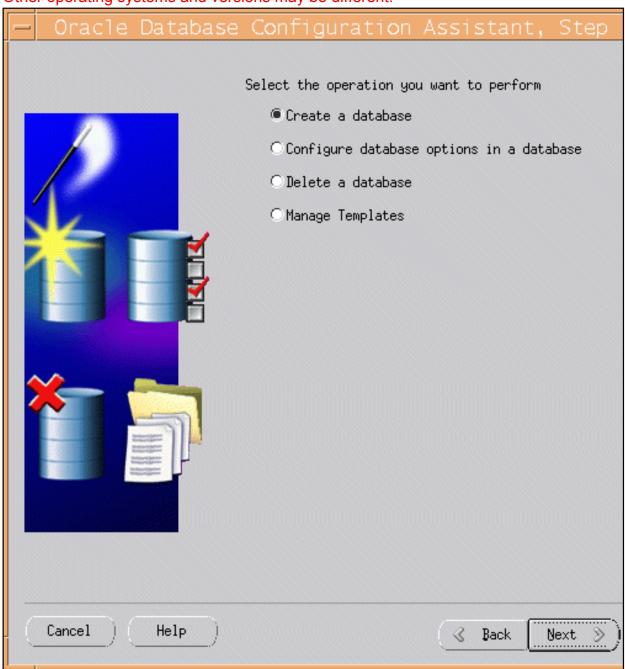
Task 4 Configure a database listener

- 1. At a UNIX console window, log in as the Oracle user, enter **netca** to start the Oracle Net Configuration Assistant.
- 2. In the Welcome window select **Listener configuration** and click **Next**.
- 3. Select Add and click Next.
- 4. Enter a listener name (LISTENER is suggested) and click **Next**.
- 5. For the connection protocol select **TCP** and click **Next**.
- 6. Select the standard port number **1521** and click **Next**.
- 7. For configuring another listener, select **No**.
- 8. At the configuration complete message click **Next**.
- 9. In the final window click Finish.

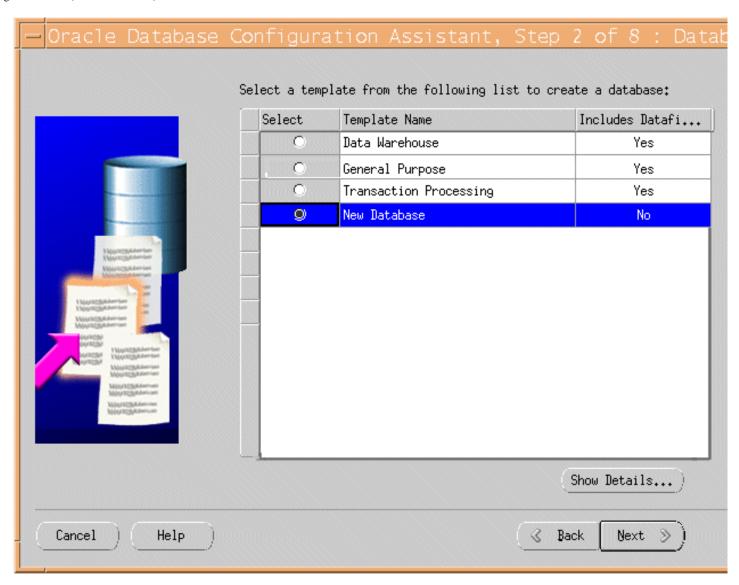
Task 5 ◆ Create the Reporter database structure

- 1. At a UNIX console window, log in as the Oracle user, enter **dbca** to start the Oracle Database Configuration Assistant.
- 2. Select the Create a Database option and click Next.

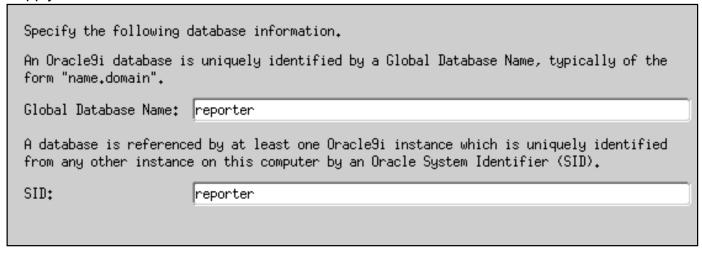
⚠ **Important**: These procedures and screen examples are for Oracle 9.2.0.1.0 on HP-UX. Other operating systems and versions may be different.



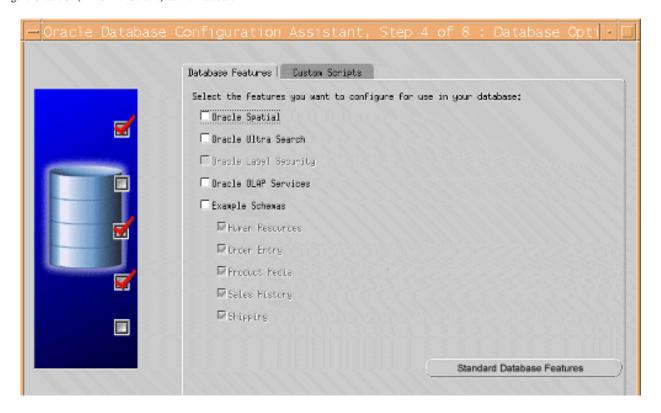
3. Select the **New Database** template and click **Next**.



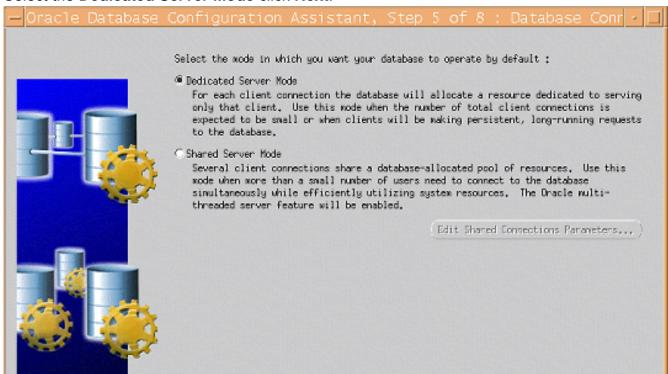
4. Supply Global Database Name and the SID and click **Next**.



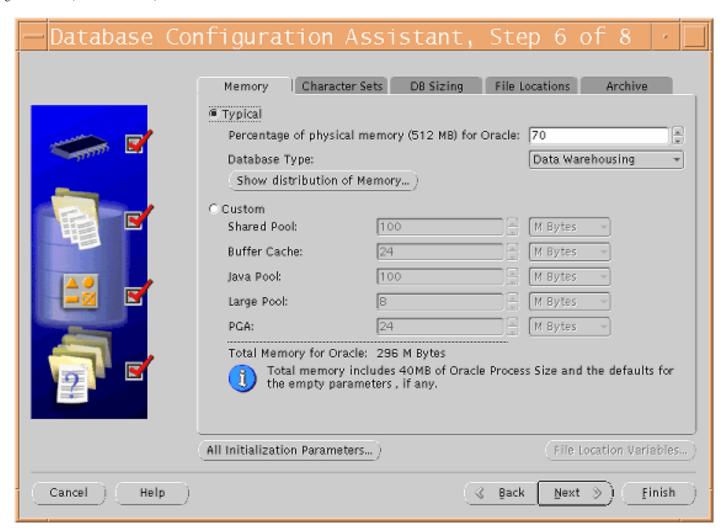
5. You can optionally de-select the listed features, which are not required for the Reporter database, and click **Next**.



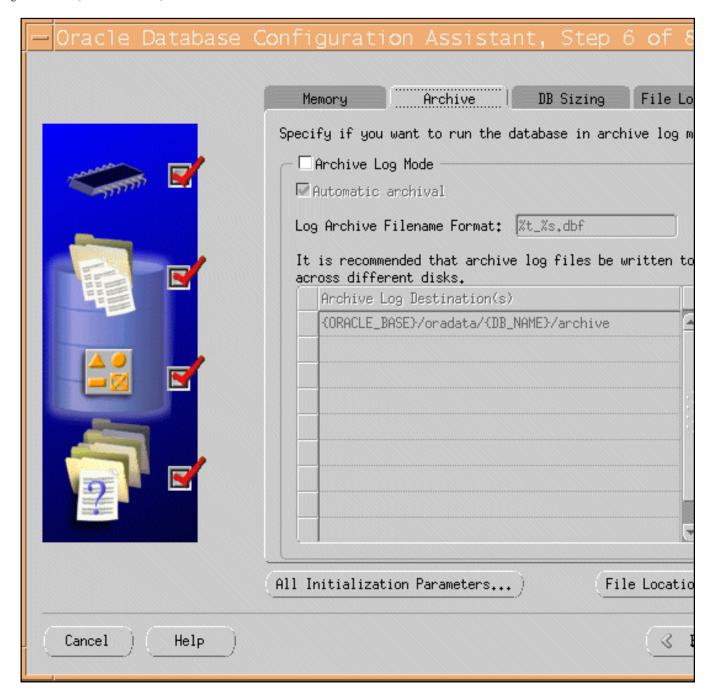
6. Select the **Dedicated Server Mode** click **Next**.



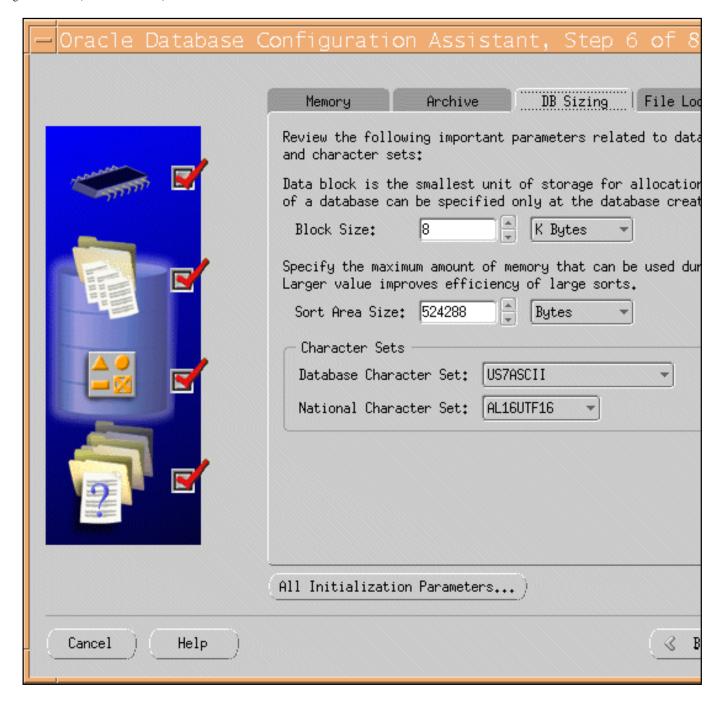
7. In the Memory tab, select Typical. Accept the default value for Percentage of physical memory (or as directed by your DBA) and then select the Archive tab.



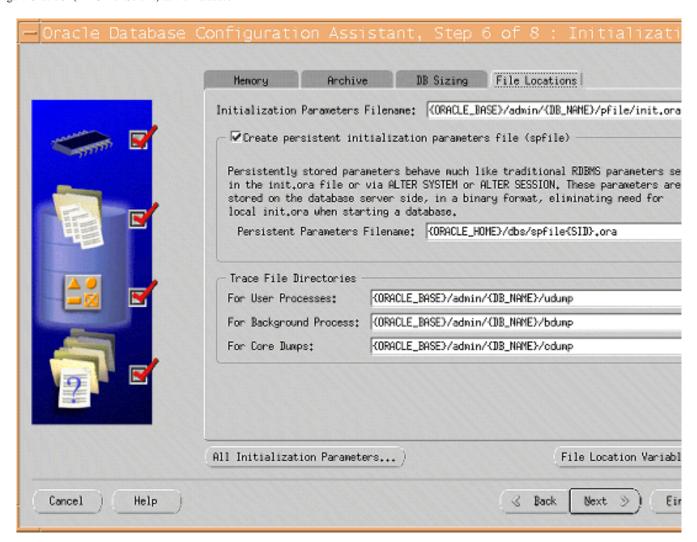
8. (optional) Select the **Archive** tab and the Archive Log Mode if you want a back up strategy that ensures data recoverability that goes beyond the most recent backup.



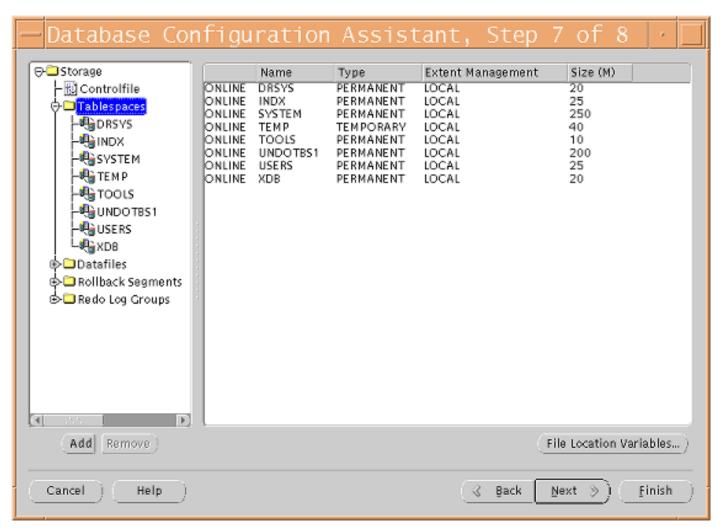
9. Select the **DB Sizing** tab and set the Block Size to **8K**.



10. Select the **File Locations** tab, where you can review the location settings, and click **Next**.

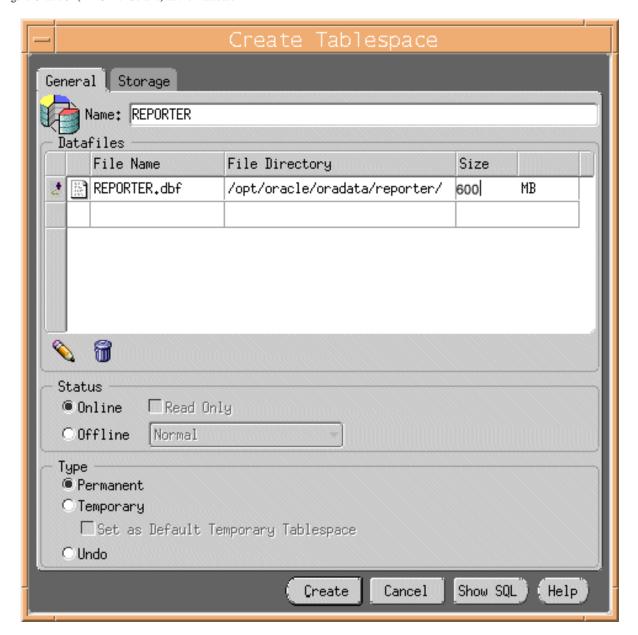


11. In the Database Storage window click the **Tablespaces** entry in the tree to view current tablespace configuration.

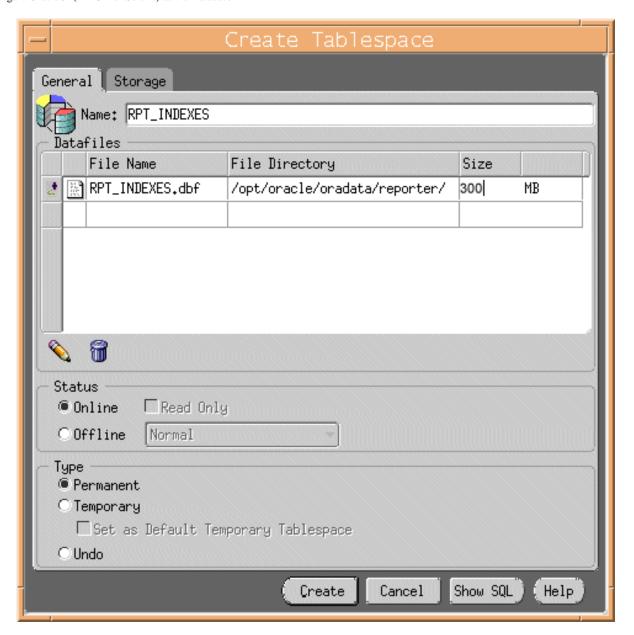


12. Click the Add button to add the REPORTER tablespace. Size the tablespace to 600MB.

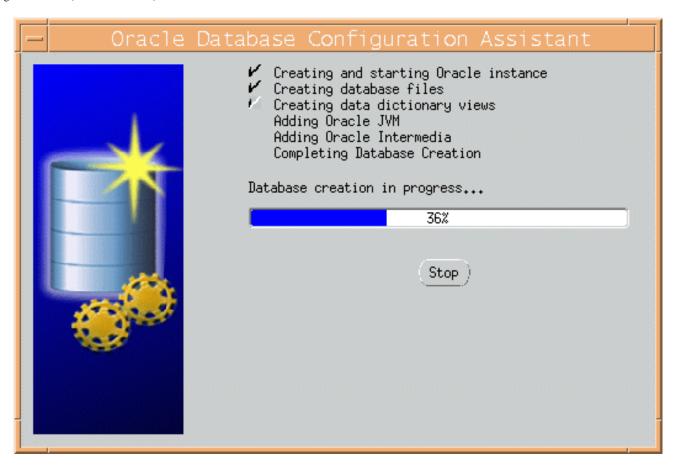
Important: In the next two steps, if the actual storage size of 600MB for REPORTER tablespace and 300MB for the RPT_INDEXES tablespace is not large enough, please consult your Oracle DBA on the appropriate size for your environment or how to setup the AUTOEXTEND datafile feature in Oracle.



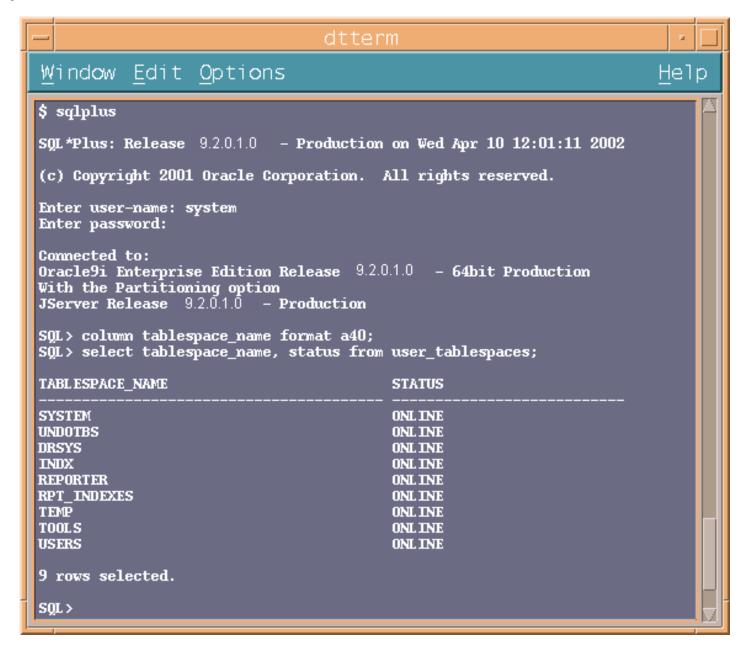
- 13. Select the **Storage** tab, verify Locally Managed extents with **Automatic Allocation**, and click **Create**.
- 14. Click the **Add** button to add the **RPT_INDEXES** tablespace, size the tablespace to **300MB**.
- 15. Select the **Storage** tab, verify Locally Managed extents with **Automatic Allocation**, and click **Create**.



- 16. Click the **Tablespaces** entry in the tree to verify that the **REPORTER** and **RPT_INDEXES** tablespaces have been added to the configuration, and click **Next**.
- 17. Select the **Create Database** option. (Optionally, you can save scripts for this DB creation process and execute them later.) Click **Finish**.
- 18. When the Database Creation progress window appears, several hours may be required to create the database depending upon the options that are selected. Respond to the database creation completion messages and close the Database Configuration Assistant.



- 19. (Optional) Verify the availability of the REPORTER database.
 - A. At a UNIX console window, log in as the Oracle user, and start the SQL *Plus environment by entering: **sqlplus**
 - B. Supply the user-name and password (for example, **system** / **manager** should be available as a user-name and password on this newly created database).
 - C. At the SQL prompt enter **column tablespace_name format a40**;.
 - D. Enter select tablespace_name, status from user_tablespaces;
 - E. Verify that the expected tablespaces are available and enter exit to leave SQL *Plus.



Task 6 → Create the Reporter database user and privileges

- 1. Start the SQL *Plus environment as described above.
- 2. Execute the following SQL statements to create the user for the REPORTER database:

create user openview profile default identified by openview default tablespace reporter temporary tablespace temp quota unlimited on reporter quota unlimited on rpt_indexes account unlock; grant create any index, create procedure,

create sequence, create session, create table, create trigger, create view, unlimited tablespace, connect to openview;

Configure Oracle Client Software on the Windows System

This section covers the installation of the software that allows the Windows system, on which OVIS runs, to connect to the HP-UX or Solaris system, from which the Oracle database is accessed.

Task 1 → Install Oracle 9i Client software

- 1. At the OVIS Management Server Windows system, insert the Oracle9i installation CD and in the window that appears select **Install/Deinstall Products**.
- 2. In the Oracle Universal Installer Welcome window click **Next**.
- 3. Enter or select an Oracle 9 home location for this installation and click **Next**.
- 4. In the Available Products window select **Oracle9i Client** and click **Next**.
- 5. In the Installation Types window select **Administrator** and click Next.
- 6. Verify the information in the Summary window and click **Install**.

A window showing installation progress will appear. The installation process also starts the Oracle Net Configuration Assistant tool. Proceed to Task 2 for completion of this activity.

Task 2 → Configure the Oracle Net connection

The Oracle Net Configuration Assistant tool can be started independently (without re-installing client software) by selecting Start -> Programs -> Oracle-OraHome9 -> Configuration and Migration Tools -> Net Configuration Assistant. The first few dialogs differ between an installation-initiated Assistant compared with an independently started Assistant. The steps below use the dialogs encountered when the Assistant is started as part of the client installation.

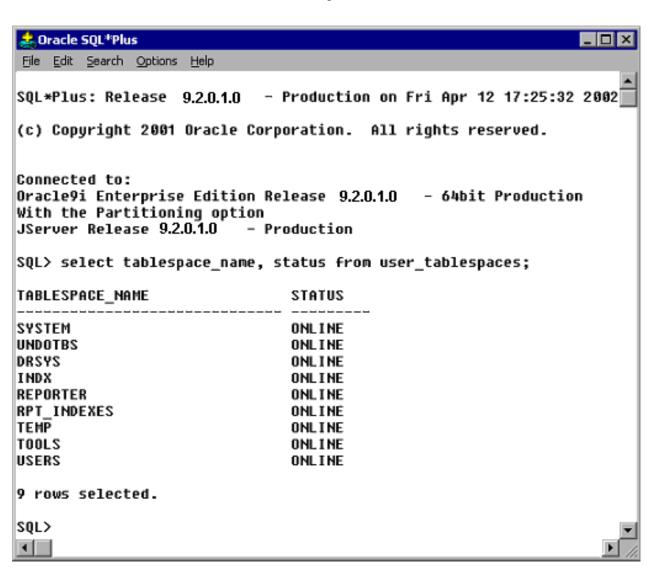
- 1. In the Welcome window select **No, I will create net service names myself.**, and click Next.
- 2. In the Database Version window select **Oracle8i or later** and click **Next**.
- 3. In the Service Name window supply the service name for the database (typically reporter or reporter. <domain>, the global database name), and click **Next**.
- 4. In the Select Protocols window choose the appropriate network protocol (typically TCP), and click **Next**.
- 5. In the TCP/IP Protocol window, supply the Host name and port number (typically 1521), click **Next**.
- 6. In the Test window, select Yes, and click Next.
- 7. In the Connecting window verify that the connection was successful; you may have to change the login credentials (openview/openview) for the test to succeed.
- 8. Click Next.
- 9. In the Net Service Name window supply a service name (suggested: RPT), and click Next.
- In the Another Net Service Name window select No. and click Next.
- 11. In the Done window click **Next** and then **Finish**.

Task 3 → Verify the Oracle Net connection

After completion of the Oracle Net Configuration, perform the following steps to verify that you can connect to the Reporter database from your Windows system.

- Start the SQL *Plus tool by selecting Start -> Programs -> Oracle-OraHome9 -> Application Development -> SQL Plus.
- 2. At the Log On dialog supply the User Name (system), Password (manager), and Host String (**RPT**), [the Net Service Name supplied in <u>Task 2</u>, <u>step 9</u>].
- 3. Enter the following SQL statement: select tablespace_name, status from user_tablespaces;

You should see results similar to the following:



If you cannot connect to the database, or do not see these tablespaces, check with the Oracle database administrator for the UNIX host system.

4. To leave the SQL *Plus environment, type **Exit**.

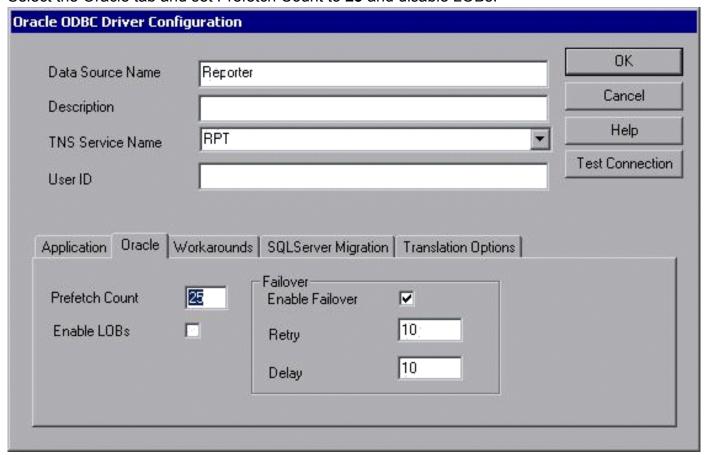
Task 4 → Configure the ODBC data source

- 1. Stop the following services:
 - Reporter Service
 - World Wide Web Publishing Service
- From a command window, stop the OVIS probes with the following command: ovc -stop ovprobes
 From a command window, stop tomost with the following command:
 - From a command window, stop tomcat with the following command: ovc -stop ovtomcatA
- 3. To launch the Windows Control Panel, select **Start** -> **Settings** -> **Control Panel**.
- 4. Double-click **Administrative Tools**, then double-click **Data Sources (ODBC)**.
- 5. In the ODBC Data Source Administrator, select the **System DSN** tab.
- 6. If it exists, select the **Reporter** DSN and remove it.
- 7. Select the **Add...** button and highlight the **Oracle in OraHome9** driver and click **Finish**.
- 8. In the Oracle ODBC Driver Configuration window enter **Reporter** as the Data Source name.

⚠ Important: You must enter Reporter as the Data Source Name in mixed case (uppercase "R") to match references to it in Internet Services executables.

For the TNS Service Name, from the drop-down menu select the name configured in Task 2, step 9 (RPT).

Select the Oracle tab and set Prefetch Count to 25 and disable LOBs.



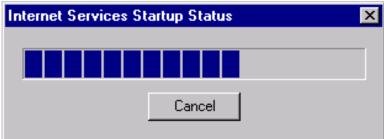
- 7. To test the connection (if desired), click **Test Connection** and supply the username and password (openview/openview).
- 8. To add this data source to the System DSNs, click **OK**.

Task 5 → Configure the Database in OVIS

- To start Internet Services Configuration Manager, select Start>Programs>HP OpenView>internet services>Configuration Manager.
- 2. An error message is expected; click **Yes** or **OK** to proceed. Then database login may be required, if so see the next step, proceed to step 5.
- 3. In the Database Login dialog box, enter the database User Name and Password that you used for the UNIX system configuration in Task 6 (username: **openview**; password: **openview**).



- 4. Click OK
- 5. You will see the Internet Services Startup status bars. Then the Configure License dialog may be displayed. Follow the instructions for licensing or click OK to continue. Then the main Configuration Manager window displays. You can exit the Configuration Manager.



- 6. Restart IIS as follows. Note that restarting IIS will also restart World Wide Web Publishing Service so you don't have to start that in the next step.
 - Go into the Control Panel and select Administrative Tools > Internet Services Manager. Right-click on the machine name and choose Restart IIS...
- 7. Start the following services:
 - Reporter Service
 - World Wide Web Publishing Service
- 8. From a command window, start the OVIS probes with the following command: ovc -start ovprobes
 - From a command window, start tomcat with the following command: ovc -start ovtomcatA



Setup Oracle as the Database

Configure Oracle 10g as the Database



Set Up Oracle 10g on HP-UX or Solaris and Configure the Client on Windows

⚠ IMPORTANT: If HP OpenView Internet Services and hp OpenView Reporter are installed on the same system, migration of your OVIS/Reporter data from your existing database to Oracle is not supported.

Prerequisites: Because a successful Oracle configuration is dependent upon correct kernel parameter settings, check your HP-UX or Solaris system kernel parameters (see the Oracle Installation Guide and other Oracle documentation for these parameters).

Ensure you have the following available:

- Memory: 512 MB RAM minimum
- Swap space: disk space equivalent to the greater of 2*RAM, or at least 1 GB
- CD-ROM: capable of reading ISO 9660 format with RockRidge extensions
- Disk space: 3.69 GB for database software; 1 GB for database
- Temp disk space: 400MB in /tmp directory
- Solaris (Sun SPARC) and HP-UX (PARISC) refer to the Oracle documentation for Oracle 10g server support on specific operating system versions
- Operating System patches (detailed in the Oracle10g Release Notes)
- JAVA components (detailed in the Oracle10g Release Notes)
- HP-UX note: an important pre-installation step is required relating to X library symbolic links

Oracle Documentation: The documents can be found on the Oracle10g Database CD-ROMs. To access them, mount Disk 1 of the Oracle10g Database CD-ROM and open the index.html. Oracle also provides online resources for documentation at the Oracle Documentation Center and the Oracle Technology Network (http://www.oracle.com/technology/documentation/index. html). For Oracle-specific information, please check the following:

- Oracle10g Installation Guide
- Oracle10g Quick Installation Procedure
- Oracle10g Release Notes

IMPORTANT: If you use systems with different language settings, the OVIS Reporter database should be created using the same default locale character set as the system where OVIS is installed (Management Server). At this time, OVIS does not support databases that have been configured to use the UTF-8 character set.

Database Performance Note:

Adding indexes can improve performance. Indexes are provided in the following tables. Consult your DBA for a maintenance plan for these indexes.

IOPS_PROBE_DATA

Index	Field
Indx2_IOPS_PROBE_DATA	DATETIME
Indx6_IOPS_PROBE_DATA	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA	SERVICE_NAME
Indx25_IOPS_PROBE_DATA	PROBENAME

IOPS_PROBE_DATA_CACHE

Index	Field
Indx2_IOPS_PROBE_DATA_CACHE	DATETIME
Indx6_IOPS_PROBE_DATA_CACHE	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_CACHE	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_CACHE	PROBENAME

IOPS_PROBE_DATA_DAILY

Index	Field
Indx2_IOPS_PROBE_DATA_DAILY	DATETIME
Indx6_IOPS_PROBE_DATA_DAILY	CUSTOMER_NAME
Indx7_IOPS_PROBE_DATA_DAILY	SERVICE_NAME
Indx25_IOPS_PROBE_DATA_DAILY	PROBENAME

IOPS_DETAIL_DATA

Index	Field
Indx5_IOPS_DETAIL_DATA	DATETIME
Indx7_IOPS_DETAIL_DATA	PROBENAME
Indx8_IOPS_DETAIL_DATA	CUSTOMER
Indx11_IOPS_DETAIL_DATA	SERVICENAME

IOPS_DETAIL_DATA_HOURLY

Index	Field
Indx5_IOPS_DETAIL_DATA_HOURLY	DATETIME
Indx7_IOPS_DETAIL_DATA_HOURLY	PROBENAME
Indx8_IOPS_DETAIL_DATA_HOURLY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_HOURLY	SERVICENAME

IOPS_DETAIL_DATA_DAILY

Index	Field
Indx5_IOPS_DETAIL_DATA_DAILY	DATETIME
Indx7_IOPS_DETAIL_DATA_DAILY	PROBENAME
Indx8_IOPS_DETAIL_DATA_DAILY	CUSTOMER
Indx11_IOPS_DETAIL_DATA_DAILY	SERVICENAME

Configuration steps are divided into two sets of tasks as follows:

Server setup for Oracle10g on HP-UX or Solaris system:

- Prepare the UNIX environment
- Mount the installation CD
- Install Oracle10g Database Server software
- Configure a database listener
- Create the Reporter database structure
- Create the Reporter database user and privileges

Client setup for Oracle10g on Windows OVIS system:

- Install Oacle10g client software
- Configure the Oracle Net connection
- Verify the Oracle Net connection
- Configure the ODBC data source
- Configure the database in OVIS

Server Set Up for Oracle 10g on HP-UX or Solaris

Task 1 Prepare the UNIX Environment

1. Create the Oracle UNIX groups:

 $\textbf{HP-UX}: \ use \ the \ System \ Administrator's \ Manager \ (SAM) \ to \ create \ groups$

Solaris: use the admintool or groupadd utility to create groups

- a. Log in as the root user.
- b. Create UNIX group "dba" (The OSDBA group)
- c. Create UNIX group "oinstall" (The ORAINVENTORY group)

HP-UX note: See the Oracle10g Quick Installation Procedure for the special privileges that should be assigned to the OSDBA group.

2. Create the UNIX user "oracle":

HP-UX: use the System Administrator's Manager (SAM) to create accounts

Solaris: use the admintool or useradd utility to create accounts.

Create UNIX user "oracle" (This account is for Oracle software installation and upgrading only)

- Primary group: oinstall (The ORAINVENTORY group)
- Secondary group: dba (The OSDBA group)
- a. Create mount points for Oracle database software (for example cd /opt and enter: chown -R oracle:oinstall oracle)
 - b. Set the right permissions for the Oracle user by running **chmod -R 755** for the installation directory (for example /opt/oracle).
 - c. Make sure a local bin directory such as /usr/local/bin or /opt/bin exists.
 - d. Set UNIX system and Oracle environment variables (add to .profile or set manually)

DISPLAY=<workstation_name>:0.0 (where you want output from Oracle installer displayed)

ORACLE_BASE=/opt/oracle

ORACLE_HOME=/opt/oracle/product

ORACLE_SID=reporter

PATH includes \$ORACLE_HOME/bin, /usr/ccs/bin, /usr/bin, /etc, (/usr/bin/X11

for HP-UX), (/usr/openwin/bin for Solaris), and /usr/local/bin (if it exists)

Example of .profile for HP-UX:

Oracle Environment

ORACLE BASE=/opt/oracle; export ORACLE BASE

ORACLE HOME=/opt/oracle/product; export ORACLE HOME

ORACLE SID=reporter; export ORACLE SID

ORACLE TERM=xterm; export ORACLE TERM

NLS_LANG=AMERICAN_AMERICA.UTF8; export NLS_LANG

ORA NLS33=\$ORACLE HOME/ocommon/nls/admin/data; export ORA NLS33

LD LIBRARY PATH=\$ORACLE HOME/lib:/lib:/usr/lib:\$ORACLE HOME/rdbms/lib

SHLIB PATH=\$ORACLE HOME/lib32:\$ORACLE HOME/rdbms/lib32

export LD LIBRARY PATH

export SHLIB PATH

#set shell search paths

PATH=/bin:/usr/bin:/usr/sbin:/etc:/opt/bin:/usr/ccs/bin:/usr/local/bin:\$ORACLE_HOME/bin export PATH

#CLASSPATH must include the following JRE locations:

CLASSPATH=\$ORACLE HOME/JRE:\$ORACLE HOME/jlib:\$ORACLE HOME/rdbms/jlib

CLASSPATH=\$CLASSPATH:\$ORACLE HOME/network/jlib

Task 2 Mount the Installation CD

For HP-UX:

Edit the /etc/pfs_fstab file to add the following:

<device_file> <mount_point> <filesystem_type> <translation_method>

Definitions of the above syntax:

- <device_file> = CD-ROM device file (discover with ioscan -nFC disk)
- < mount point> = path name of the mount point
- <filesystem type> = CD-ROM is in IS09660 format, Rockridge extension
- <translation_method> = unix

For example:

/dev/dsk/c1t2d0 /CDROM pfs-rrip xlat=unix 0 0

2. Perform the following steps as the root user:

Enter: /usr/sbin/pfs_mountd & (Note:pfs creates the correct format to read the CD)

Enter: /usr/sbin/pfsd &

3. Insert the CD into the CD-ROM and mount the device as follows:

/usr/sbin/pfs_mount /CDROM

Leave the root user window available for executing a script during installation .

For Solaris:

If you are using Volume Management software (available by default on Solaris) the CD-ROM is mounted automatically when you put it into the disk drive.

If you are not using the Volume Management software, you must mount the CD-ROM manually.

- 1. Place the Oracle CD-ROM in the CD-ROM drive.
- 2. Log in as the root or **su user** and create a CD-ROM mount point directory:

\$ su root

- # mkdir cdrom_mount_point_directory
- 3. Mount the CD-ROM drive on the mount point directory and exit:
 - # mount option device_name cdrom_mount_point_directory

exit

Task 3 → Install Oracle 10g Database Server Software

- 1. Log in to the Oracle account.
- 2. Launch the Oracle Universal Installer by typing the full path to the installer executable.

⚠ Warning don't launch the installer from within the CDROM directory or you won't be able to mount multiple CDs. Example:

/cdrom/oracle10g/runinstaller or /CDROM/runinstaller.

- 3. For first-time Oracle10g installations the Welcome window appears, where you click **Next**.
- 4. In the File Locations window do not change the text in the source field and click **Next**.
- 5. In the Inventory Location window enter ORACLE HOME directory name and path and click Next.
- 6. You may have to run a script if pre-installation tasks were not completed.
- 7. In the Available Products window select **Oracle10g Database** and click **Next**.
- 8. Select the type of installation you are doing. You can select Enterprise or Standard Edition (see Oracle documentation for differences between these installation types) or Custom. (Note that if you select a Custom Installation you must at least select the following items: Oracle, Oracle Net Services, and all the subproducts on Oracle Net Services.) Click **Next**.
- 9. View the product specific prerequisite check. Click **Next**.
- 10. In the Database Configuration Window select **Do not create a starter database**. Then click **Next**.
- 11. Review the Summary Window and click **Install**. (When the Install window appears, wait as the product is installed.)
- 12. When the Setup Privileges window appears, run the script if instructed.
- 13. In the End of Installation window select Exit.

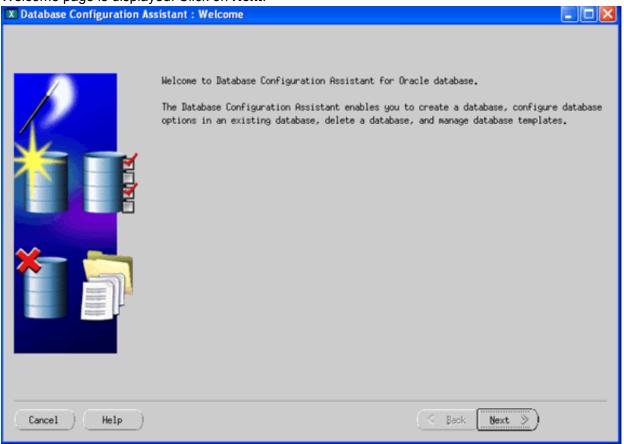
Task 4 Configure a database listener

- 1. At a UNIX console window, log in as the Oracle user, enter **netca** to start the Oracle Net Configuration Assistant.
- 2. In the Welcome window select Listener configuration and click Next.
- 3. Select **Add** and click **Next**.
- 4. Enter a listener name (LISTENER is suggested) and click **Next**.
- 5. For the connection protocol select **TCP** and click **Next**.
- 6. Select the standard port number 1521 and click Next.
- 7. For configuring another listener, select **No**.
- 8. At the configuration complete message click **Next**.
- 9. In the final window click **Finish**.

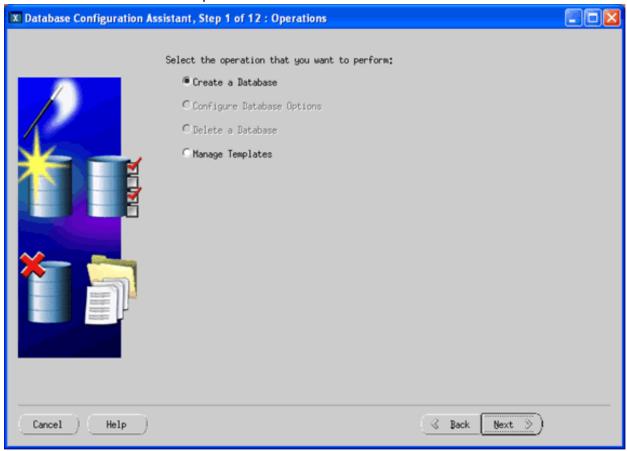
Task 4.5 ▶ Before creating the database, be sure you have patched up to Oracle version 10.1.0.4 or higher.

Task 5 → Create the Reporter database structure

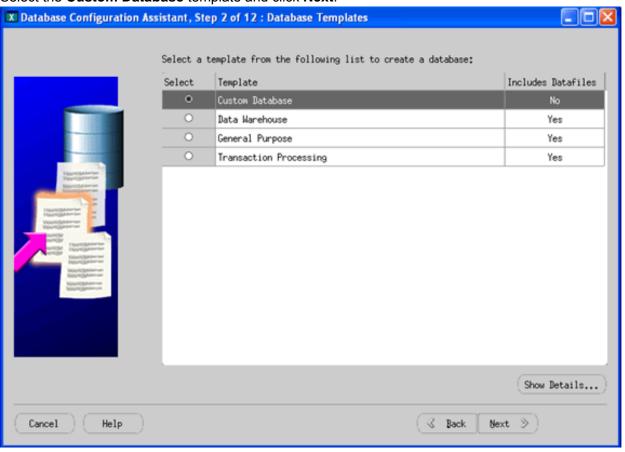
1. At a UNIX console window, log in as the Oracle user, enter **dbca**. The Oracle Database Configuration Assistant Welcome page is displayed. Click on **Next**.



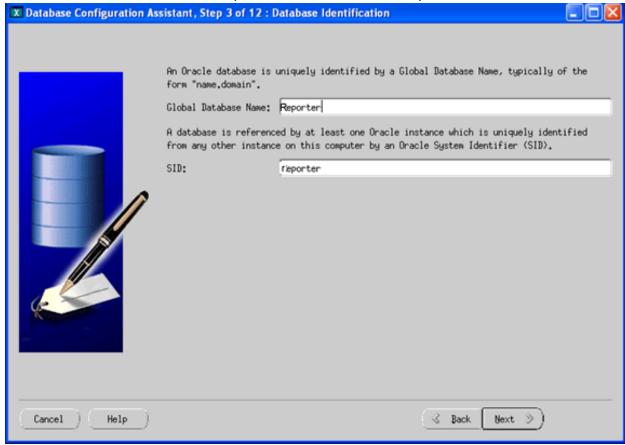
2. Select the Create a Database option and click Next.



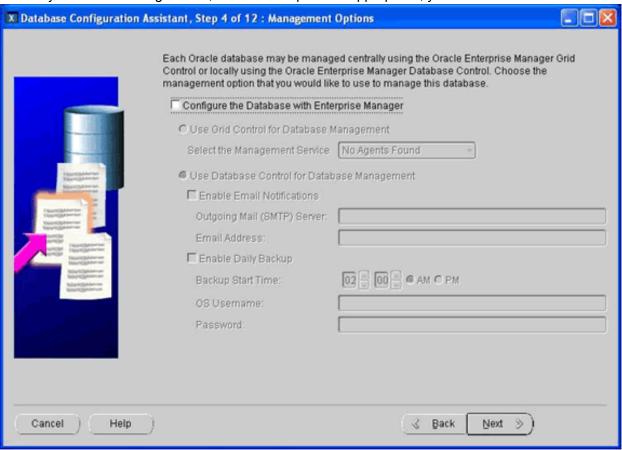
3. Select the Custom Database template and click Next.



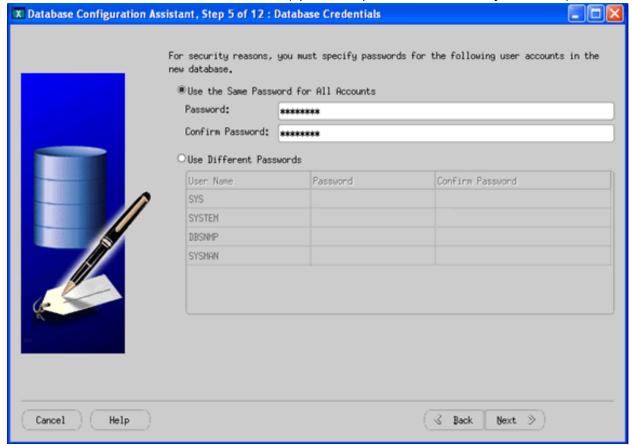
4. Enter Global Database Name as Reporter and enter the SID as reporter. Click on Next.



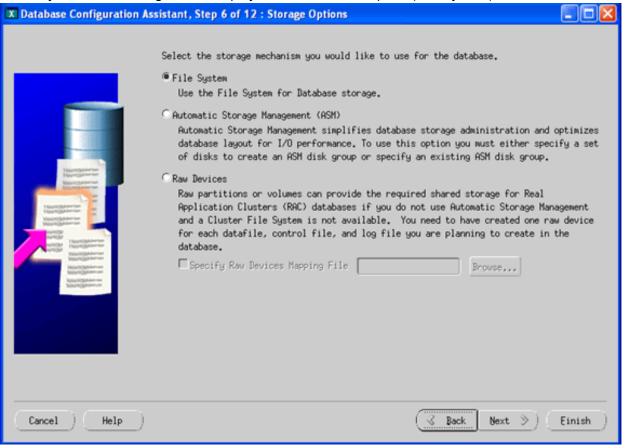
5. You may see the following screen, choose the option as appropriate, you can leave it to default. Click on **Next**.



6. Give the **Password** and **Confirm Password** (openview openview or whatever you choose). Click on **Next**.

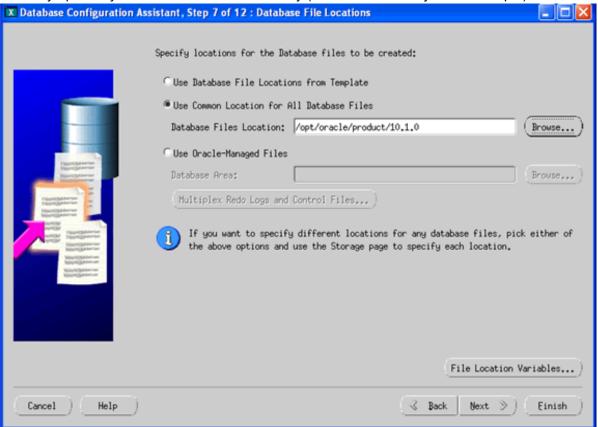


7. You may see the following screen displayed, select the first option (File System) and click on **Next**.

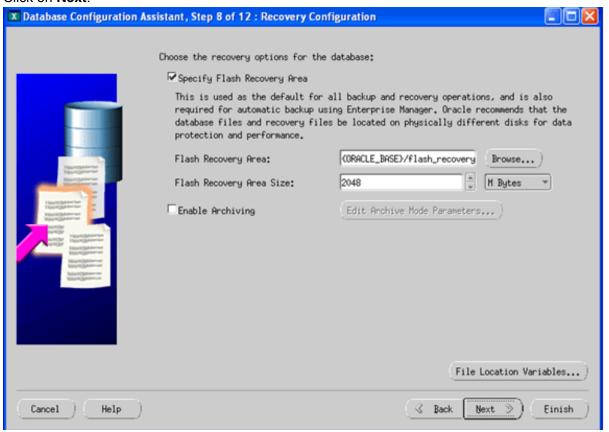


8. In the following screen, select **Use Common Location for ALL Database Files** and enter the path for database files to be created.

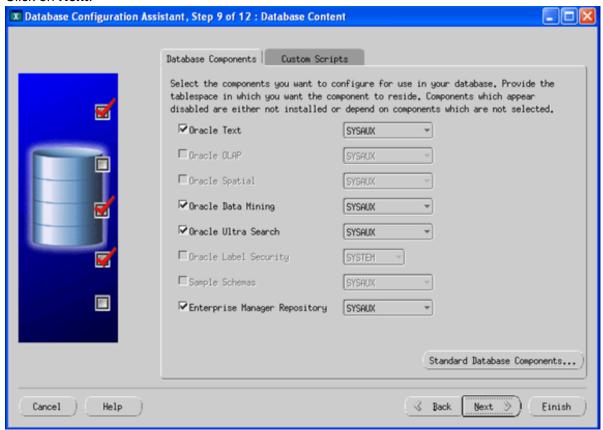
You may optionally browse to locate the directory (the screen shot is just an example). Click Next to continue.



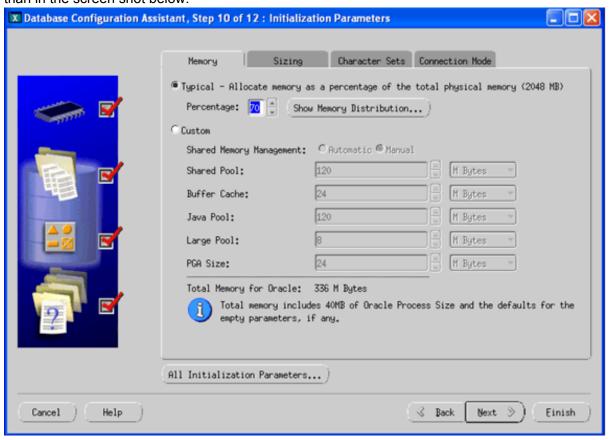
9. Click on Next.



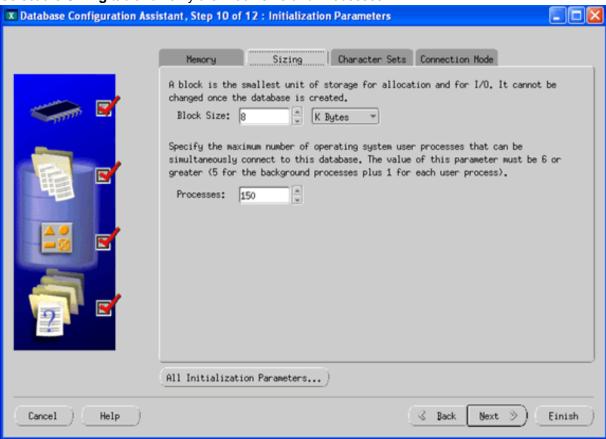
10. Click on **Next**.



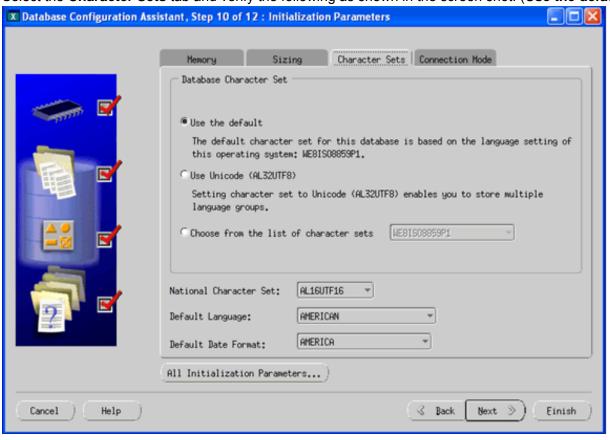
11. Select **Typical** installation option on the following screen and accept the default value for Percentage of physical memory or you can change the percentage as directed by your database administrator. The Percentage you see may be different than in the screen shot below.



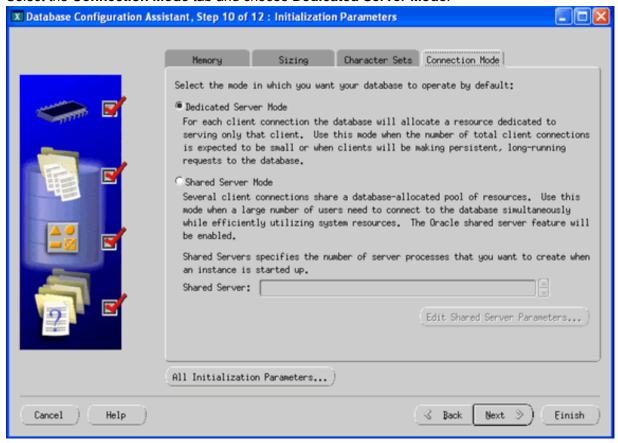
12. Select the **Sizing** tab and verify the Block Size and Processes.



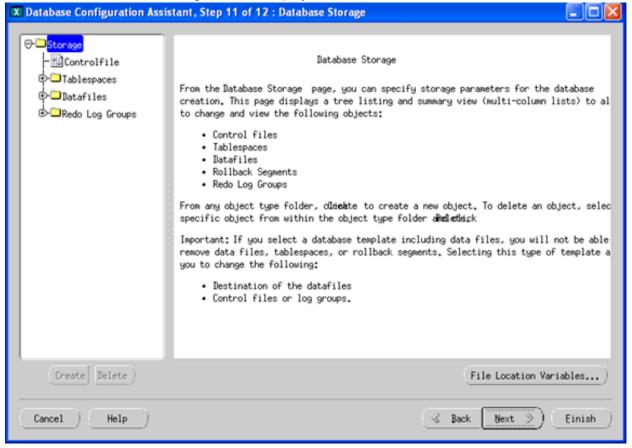
13. Select the Character Sets tab and verify the following as shown in the screen shot. (Use the default is selected).



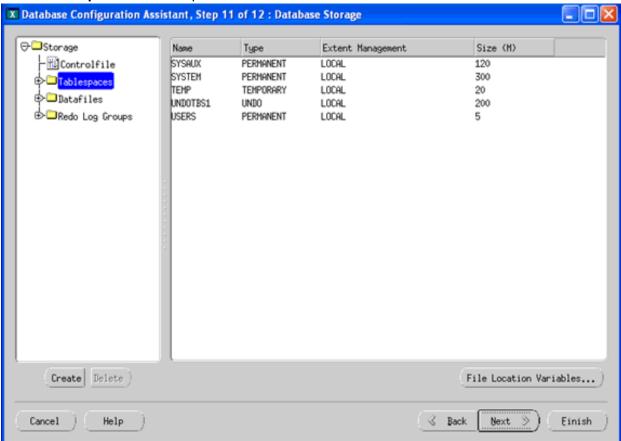
14. Select the **Connection Mode** tab and choose **Dedicated Server Mode**.



15. Click on **Next**. and the following screen is displayed.



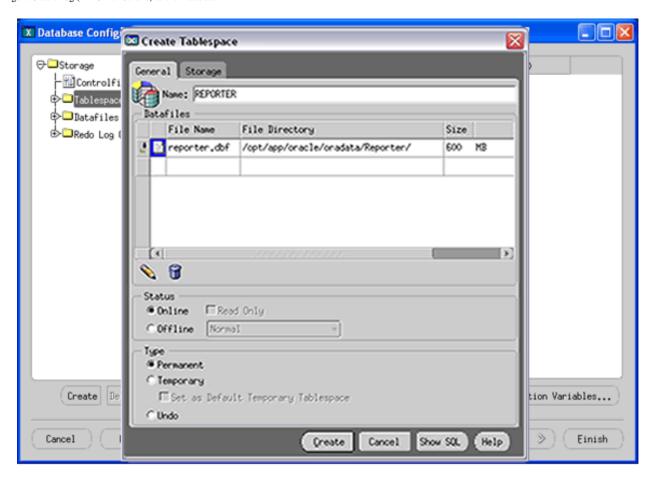
16. Select **Tablespaces** in the left pane. Click on the **Create** button.



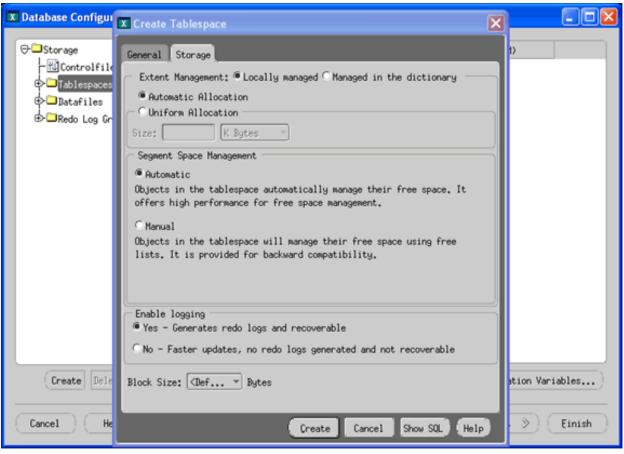
17. You will get a window for creating the tablespace. Add the REPORTER tablespace (file name reporter.dpf) and set the size as 600MB.

Enter 600MB as the data storage space by editing the size column.

⚠ Important: If the actual storage size of 600MB for REPORTER tablespace and 300MB for the RPT_INDEXES tablespace is not large enough, please consult your Oracle DBA on the appropriate size for your environment or how to setup the AUTOEXTEND datafile feature in Oracle.



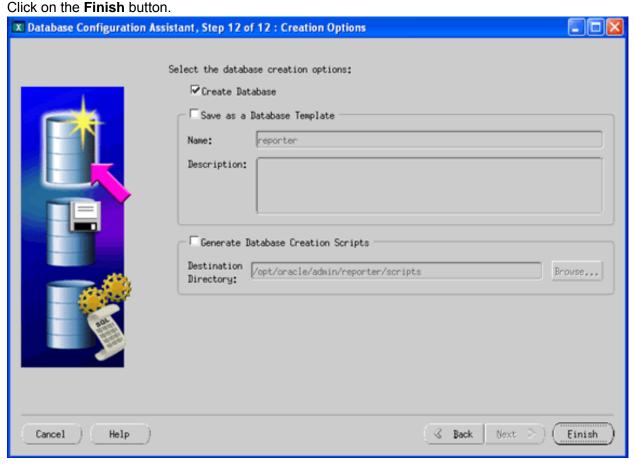
18. In the same window select the **Storage** tab and be sure selections are as shown. Then click on **Create** to create the datafile.



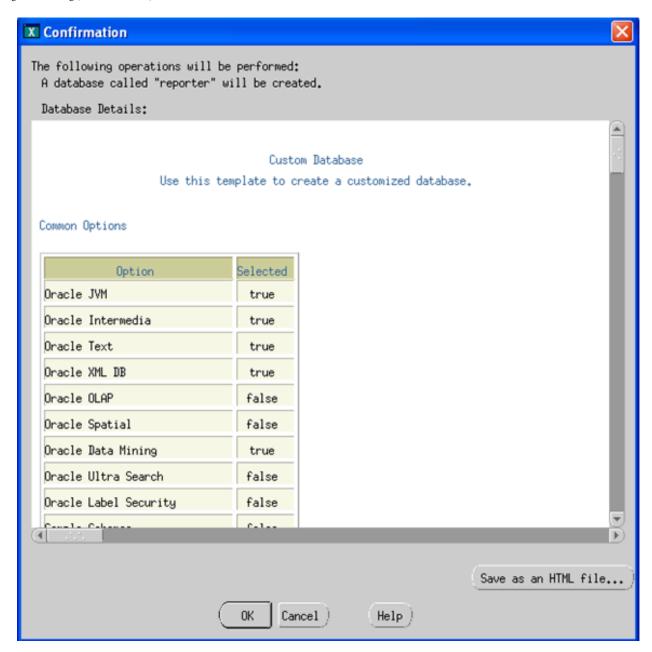
19. After the creation of REPORTER tablespace, click on **Tablespaces** and use the **Create** button again to create a new tablespace called RPT_INDEXES (filename rpt_indexes.dbf) with the same parameters and DB size of 300MB (see the steps above).

Then click on Next.

20. In the screen shown below, use the default **Create Database** (Optionally, you can save scripts for this DB creation process and execute them later).

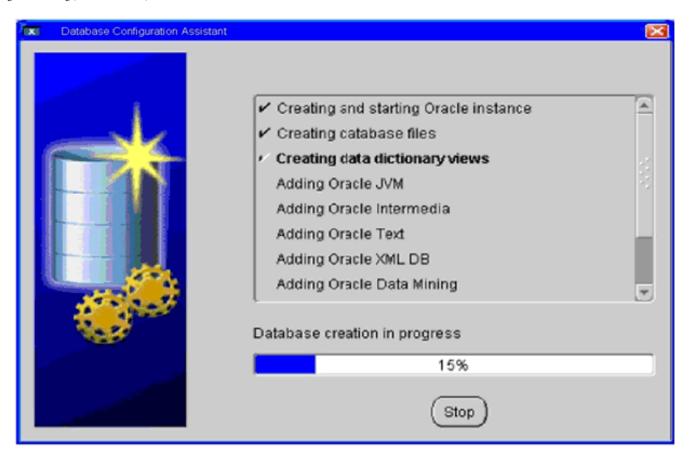


21. Then in the Confirmation Window click **OK**.



22. You will then see the Database Configuration Assistant window.

Several hours may be required to create the database depending upon the options that are selected.



After the database has been created, you will see the Database creation complete message. Respond to the database creation completion messages and close the Database Configuration Assistant.

Task 6 → Create the Reporter database user and privileges

- 1. Start the SQL *Plus environment as described below:
 - A. At a UNIX console window, log in as the Oracle user, and start the SQL *Plus environment by entering: **sqlplus**
 - B. Supply the user-name and password (for example, **system** / **administrator** should be available on this newly created database).
- 2. Execute the following SQL statements to create the user for the REPORTER database:

create user openview profile default identified by openview default tablespace reporter temporary tablespace temp quota unlimited on reporter quota unlimited on rpt_indexes account unlock;

You will see the 'user created' message. Execute the statements below to grant permissions.

grant create any index, create procedure, create sequence, create session, create table, create trigger, create view, unlimited tablespace, connect to openview;

Configure Oracle Client Software on the Windows System

This section covers the installation of the software that allows the Windows system, on which OVIS runs, to connect to the HP-UX or Solaris system, from which the Oracle database is accessed.

Task 1 → Install Oracle 10g Client software

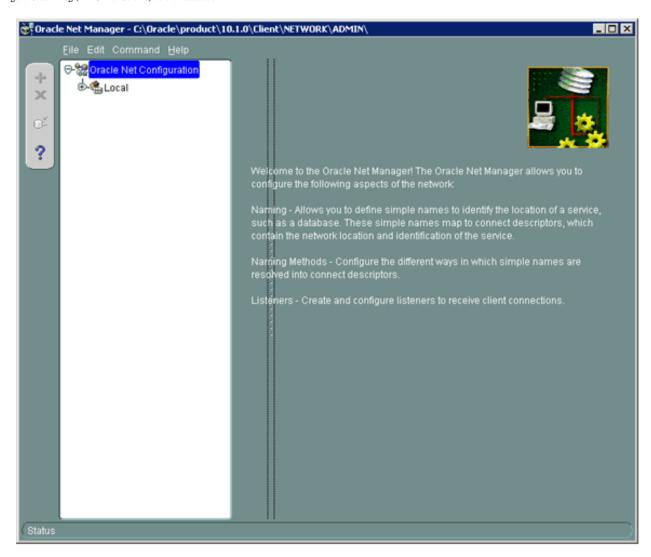
- 1. At the OVIS Management Server Windows system, insert the Oracle10g client installation CD. Select Install/Deinstall Products.
- 2. In the Oracle Universal Installer Welcome window click **Next**.
- 3. Enter or select an Oracle home location for this installation and click **Next**.
- 4. In the Available Products window select **Oracle10g Client** and click **Next**.
- 5. In the Installation Types window select **Administrator** and click Next.
- 6. Verify the information in the Summary window and click **Install**.

A window showing installation progress will appear. The installation process may also start the Oracle Net Manager tool. Proceed to Task 2 for completion of this activity.

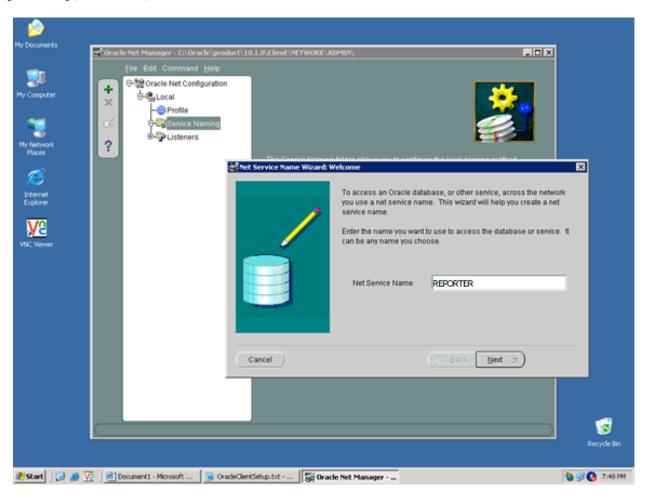
Task 2 ◆Configure the Oracle Net connection

After installing the Oracle 10g client software you configure the client. The following instructions are using the Oracle Net Manager tool (you may also use the Oracle Net Configuration Assistant for configuring the client).

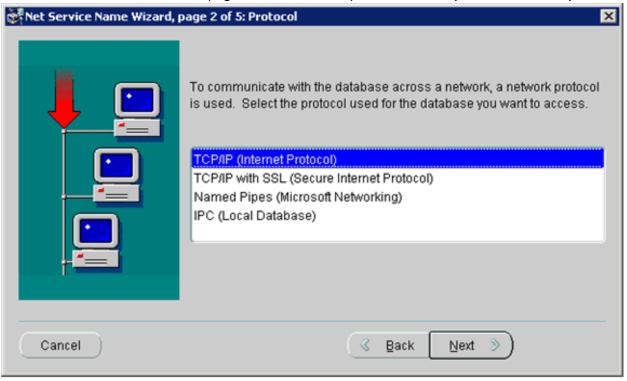
- The Oracle Net Manager tool can be started independently (without re-installing client software) by selecting Start >
 Programs > Oracle-OraClient10g_home > Configuration and Migration Tools > Net Manager.
- This opens the Oracle Net Manager as shown below. In this screen, click on the + sign to invoke the Net Service Name Wizard.



3. In the Net Service Name Wizard, enter **Net Service Name = REPORTER** or whatever was the service name given during the Reporter database configuration. Then click on the **Next** button.

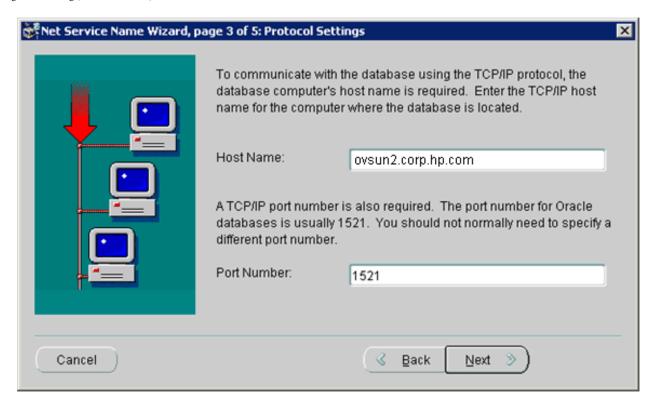


4. In the Net Service Name Wizard, page 2 or 5; select the protocol **TCP/IP (Internet Protocol)**. Then click **Next**.

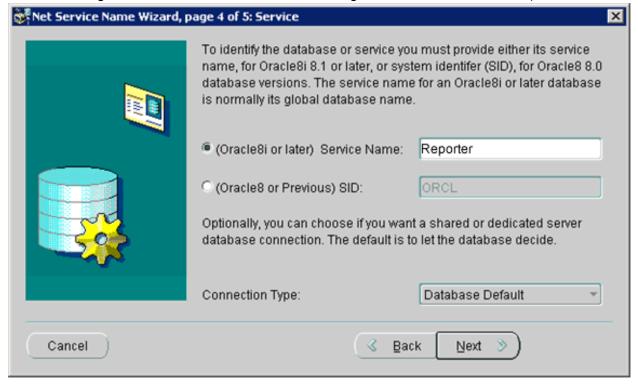


5. In the Net Service Name Wizard, page 3 of 5; enter the **Host Name**. The name should be the fully qualified domain name of the machine where the Oracle server is installed.

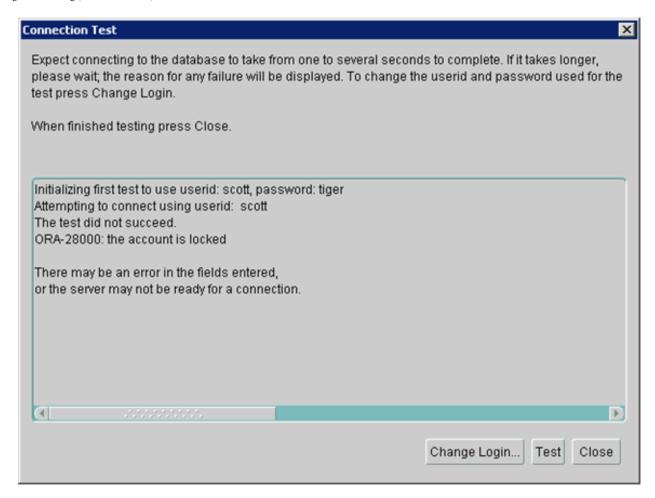
In the same screen, enter the **Port** number for the Oracle database. The default port for Oracle databases is 1521. Then click **Next**.



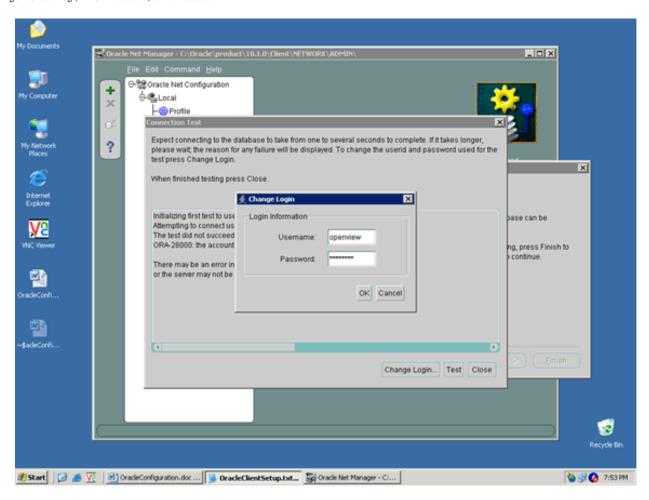
6. In the Net Service Name Wizard, page 4 of 5; select (Oracle 8i or later) Service Name and enter REPORTER (or whatever was given as the Service Name while installing the Oracle database server). Click Next.



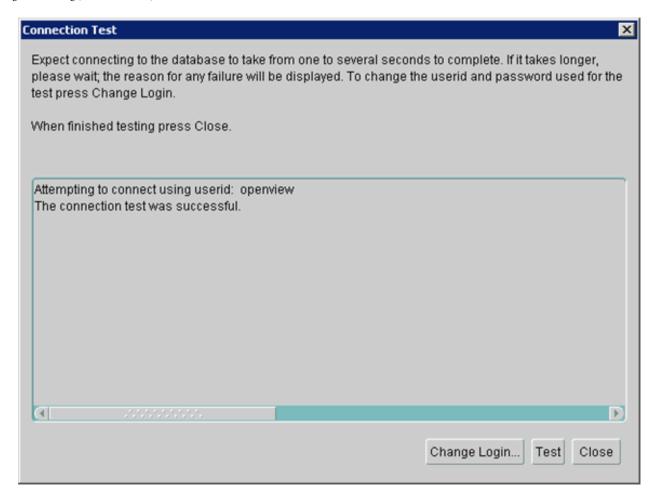
7. In the Connection Test screen, click on the **Test** button. This test may fail because the username and password is set to the Oracle default and does not match the Reporter database username and password.



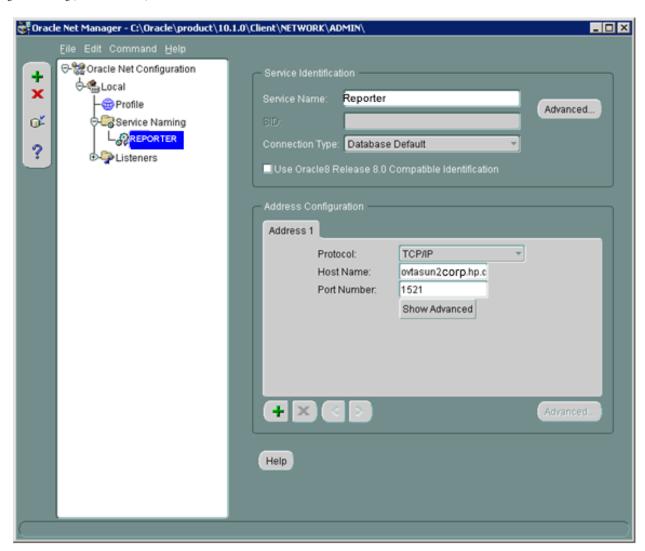
8. If the test failed, select the **Change Login** button and enter openview/openview as **Username** and **Password** (or the username and password given during the database server installation). Then click the **OK** button.



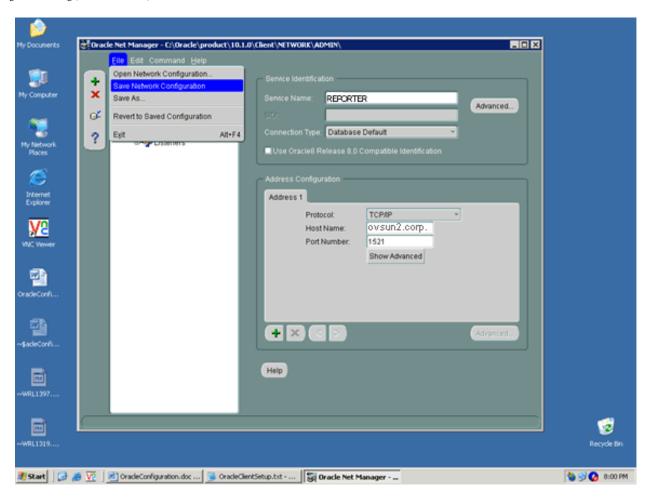
9. Select **Test** again. You should see the successful message. This is the checkpoint that the Oracle client is successfully connecting to the Oracle Server.



10. Click on **Close** to close the Connection Test Wizard and return to the Oracle Net Manager screen.



11. In the Oracle Net Manager screen, save the configuration by selecting **File > Save Network Configuration**. Then select **File > Exit** to exit the Oracle Net Manager wizard.



Task 3 →Verify the Oracle Net connection

After completion of the Oracle Net Configuration, perform the following steps to verify that you can connect to the Reporter database from your Windows system.

- Start the SQL *Plus tool by selecting Start -> Programs -> Oracle-OraClient10g_Home -> Application Development -> SQL Plus.
- 2. At the Log On dialog supply the User Name (openview or whatever you set up), Password (openview or whatever you set up), and Host String (**REPORTER**), [the Net Service Name supplied earlier].
- 3. Enter the following SQL statement: select tablespace_name, status from user_tablespaces;

If you cannot connect to the database, or do not see these tablespaces, check with the Oracle database administrator for the UNIX host system.

4. To leave the SQL *Plus environment, type **Exit**.

Task 4 - Configure the ODBC data source

- Stop the following services: Reporter Service World Wide Web Publishing Service
- 2. From a command window, stop the OVIS probes with the following command: ovc -stop ovprobes

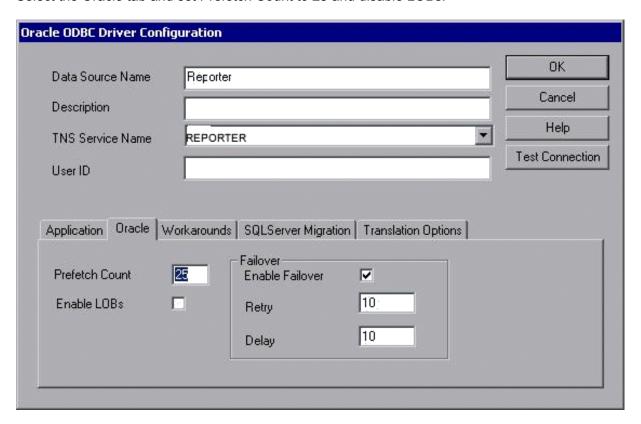
From a command window, stop tomcat with the following command: ovc -stop ovtomcatA

- 3. To launch the Windows Control Panel, select **Start** -> **Settings** -> **Control Panel**.
- 4. Double-click Administrative Tools, then double-click Data Sources (ODBC).
- 5. In the ODBC Data Source Administrator, select the **System DSN** tab.
- 6. If it exists, select the **Reporter** DSN and remove it.
- 7. Select the **Add...** button and highlight the **Oracle** driver and click **Finish**.
- 8. In the Oracle ODBC Driver Configuration window enter **Reporter** as the Data Source name.

⚠ Important: You must enter Reporter as the Data Source Name in mixed case (uppercase "R") to match references to it in Internet Services executables.

For the TNS Service Name, from the drop-down menu select the name configured earlier (REPORTER).

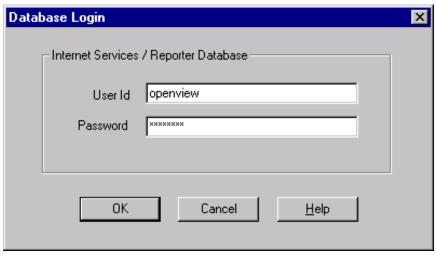
Select the Oracle tab and set Prefetch Count to 25 and disable LOBs.



- 7. To test the connection (if desired), click **Test Connection** and supply the username and password (openview/openview or whatever you used in the initial set up) and click **OK**.
- 8. To add this data source to the System DSNs, click **OK**.

Task 5 Configure the Database in OVIS

- To start Internet Services Configuration Manager, select Start>Programs>HP OpenView>internet services>Configuration Manager.
- 2. If you see an error; click **Yes** or **OK** to proceed. Then database login may be required, if so see the next step, otherwise go on to step 5.
- 3. In the Database Login dialog box, enter the database User Name and Password that you used for the UNIX system configuration (username: **openview**; password: **openview**).



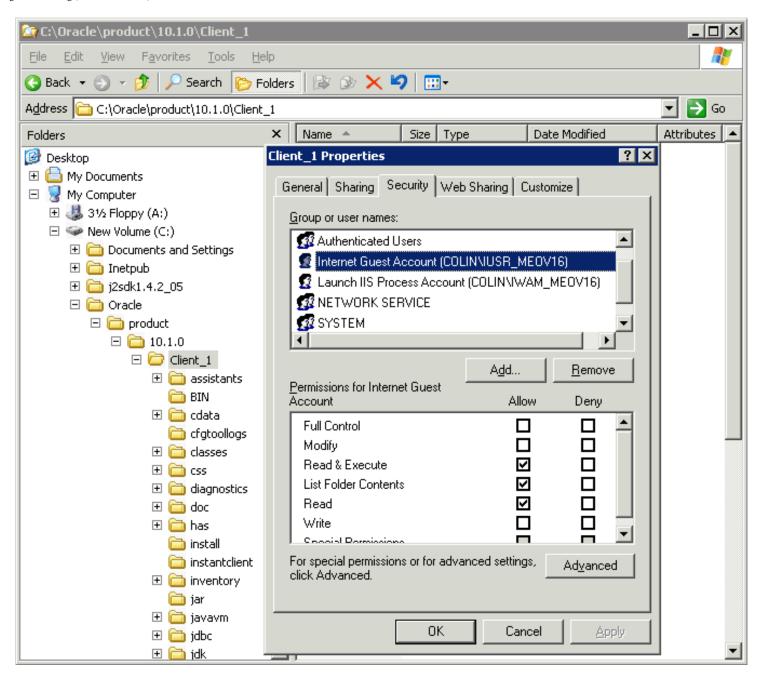
- 4. Click OK
- 5. You may see various Internet Services Startup status bars. Continue on to the main Configuration Manager window. You can exit the Configuration Manager.
- 6. Reboot the management server system.

If you see this error when closing or saving in the Configuration Manager:

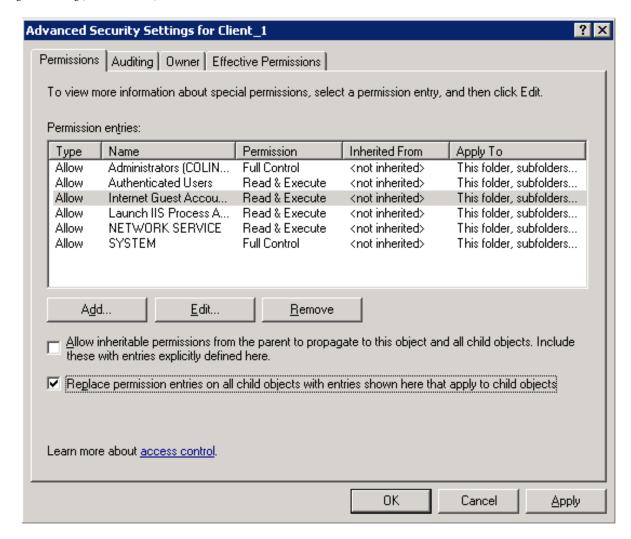


You need to set permissions on several users as follows:

- Select the Oracle Client directory (for example: c:\oracle\product\10.1.0\Client_1)
- 2. Right-click and open **Properties**.
- 3. Select Security tab.



- 4. Add 3 users: **IUSR_<host>**, **IWAM_<host>** and **NETWORK SERVICE** each with the permissions shown in the screen shot above.
- 5. Select the **Advanced** button.
- 6. Select one of the users you added, and check the box indicated below 'Replace permission entries on all child objects with entries shown here that apply to child objects'. Then click **Apply**.



- 7. Repeat the above for the other two users.
- 8. At the command line, run iisreset to restart IIS.





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