HP OpenView Operations

OVO with an Independent Database Server

Software Version: 8.23

Edition 2

UNIX

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Conventions

The following typographical conventions are used in this manual.

Table 1   **Typographical Conventions**

Font	Meaning	Example
Italic	Book or manual titles, and man page names	Refer to the *OVO Administrator's Reference* and the *opc(1M)* manpage for more information.
	Emphasis	You *must* follow these steps.
	Variable that you must supply when entering a command	At the prompt, enter **rlogin** **username**.
	Parameters to a function	The *oper_name* parameter returns an integer response.
Bold	New terms	The **HTTPS agent** observes...
Computer	Text and other items on the computer screen	The following system message displays: `Are you sure you want to remove current group?`
	Command names	Use the `grep` command ...
	Function names	Use the `opc_connect()` function to connect ...
	File and directory names	`/opt/OV/bin/OpC/`
	Process names	Check to see if `opcmona` is running.
	Window/dialog-box names	In the `Add Logfile` window ...
	Menu name followed by a colon (:) means that you select the menu, then the item. When the item is followed by an arrow (->), a cascading menu follows.	Select `Actions: Filtering -> All Active Messages` from the menu bar.

Table 1   Typographical Conventions (Continued)

Font	Meaning	Example
Computer Bold	Text that you enter	At the prompt, enter **ls -l**
Keycap	Keyboard keys	Press **Return**.
[Button]	Buttons in the user interface	Click [OK].

In This Document

The purpose of this document is to describe HP OpenView Operations setup with an independent Oracle Database 9i or 10g.

The following terms are used in this document:

Oracle Database   Oracle product

database server   computer system used for the Oracle Database

OVO database   a database created in the Oracle Database and used by OVO

Information in this document is subject to change without prior notice.

1 Installing OVO with an Independent Database Server

Overview

This chapter describes how to install and configure OVO for UNIX to use an independent Oracle Database system for the OVO database. It contains the following information:

❏ System requirements for Oracle and OVO. Refer to "Requirements" on page 11.

❏ OVO system limitations. Refer to "Limitations During the OVO Runtime" on page 12.

❏ Instructions for creating and configuring the database for OVO. Refer to "Creating and Configuring the OVO Database" on page 13.

❏ Instructions for enabling database access on the OVO Management Server. Refer to "Installing OVO" on page 31.

Requirements

Oracle Requirements

Oracle 9i and Oracle 10g are supported at this time. Although both Oracle 10g Release 1 and Release 2 are supported, we strongly encourage you to use Oracle 10g Release 2. Oracle Database server and Oracle Database client (on the OVO Management Server) must be of the same version, further requirements are described in the *OVO Installation Guide for the Management Server*.

The Oracle Database server can be installed and used with OVO for UNIX on any platform supported by the OVO for UNIX Management Server.

OVO Requirements

The following are OVO requirements:

❏ Supported with 8.23 OVO Management Server patch or later.

❏ Uses a pre-created Oracle database for OVO.

❏ Access to the OVO database should be configured (Oracle Net Services).

NOTE   OVO Management Server and database server requirements, limitations and configuration details are described in the *OVO Installation Guide for the Management Server*.

Limitations During the OVO Runtime

During the OVO runtime the following limitations apply:

❏ For a pre-created Oracle database setup the same limitations apply as for an independent database server setup.

❏ Removing the database or dropping the tablespaces using `opcdbsetup` is not supported. You can remove the database or drop tablespaces manually.

When removing the database manually, remove also the following files from the OVO Management Server when the database is removed:

— `/etc/opt/OV/share/conf/ovdbconf`

— `/etc/opt/OV/share/conf/OpC/mgmt_sv/.opcdbpwd.sec`

❏ `Mondbfile` policy (template) can only run on the database server. Unassign the `mondbfile` policy from the OVO Management Server policy group and, if an OVO agent is running on the database server system, assign the `mondbfile` policy there.

❏ `opcadddbf` tool is not supported.

Creating and Configuring the OVO Database

Before approaching the OVO software installation, perform the following pre-installation tasks to be able to use an independent Oracle Database server:

❏ Creating the OVO Database

❏ Configuring Access to the OVO Database

NOTE   OVO installation procedure is detailed in the *OVO Installation Guide for the Management Server*.

Creating the OVO Database

Creating the OVO database on the remote database server involves the following actions:

❏ Installing Oracle Database on the database server. For instructions refer to *OVO Installation Guide for the Management Server*.

❏ Creating and configuring the OVO database.

Before proceeding, verify that your system meets the Oracle requirements:

For Oracle 9i:

• Oracle 9i 9.2.0.1.0

• Oracle Net Services 9.2.0.1.0

• 9.2.0.2 or higher Patch Set for the Oracle Database Server

For Oracle 10g:

• Oracle 10g 10.2.0.1.0

• Oracle Net Services 10.2.0.1.0

• SQL * Plus 10.2.0.1.0

• 10.2.0.2 or higher Patch Set for the Oracle Database Server

To create and configure the OVO database on the database server, follow the procedure described below:

1. Login to the database server as user `oracle` and start the Database Configuration Assistant. Enter the following command:

   `$ $ORACLE_HOME/bin/dbca`

   The `Welcome` dialog opens.

NOTE   In the process of creating the database using the Oracle Database Creation Assistant, follow the wizard. Not all steps in the wizard are described in this procedure. In all steps, not described below, leave default values or make custom selections that suit your needs.

2. In the `Database Templates` dialog select **New Database** (Oracle 9i) or **Custom Database** (Oracle 10g) template in the list and click [Next].

3. In the `Database Identification` dialog enter the global database name, and the Oracle System Identifier (global database name, for example: **openview**). Click [Next]. Refer to Figure 1-1 on page 15.

Figure 1-1   Database Identification Dialog
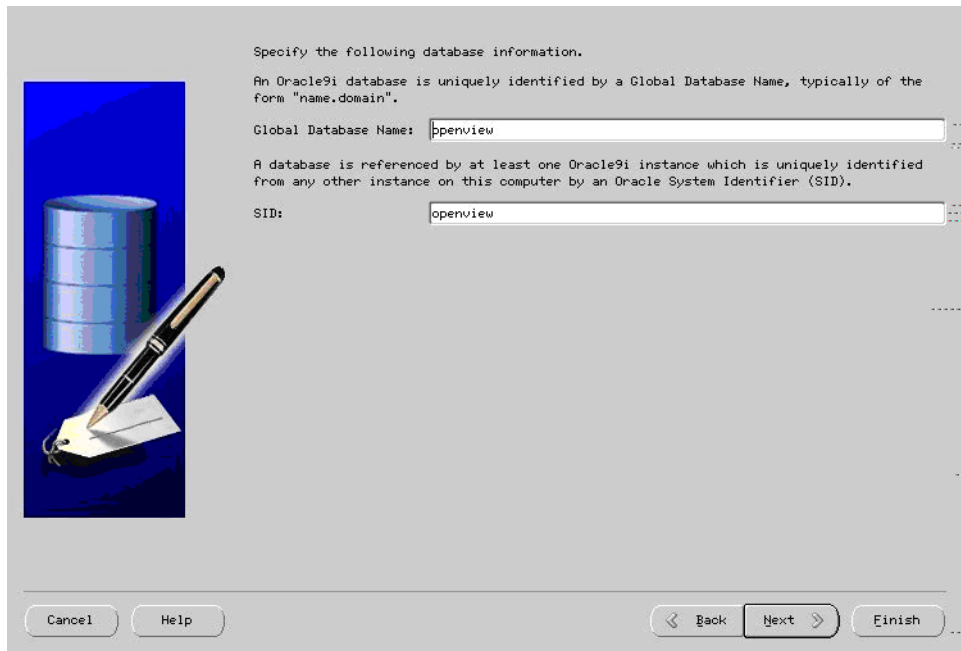
4. In `Database Features` dialog deselect all components. Then click [Standard Database Features] and also deselect all features. Click [OK]. Refer to Figure 1-2 on page 16 and Figure 1-3 on page 16.

Oracle 9i figures are displayed for your reference, Oracle 10g installation windows may vary.

Figure 1-2   Database Components
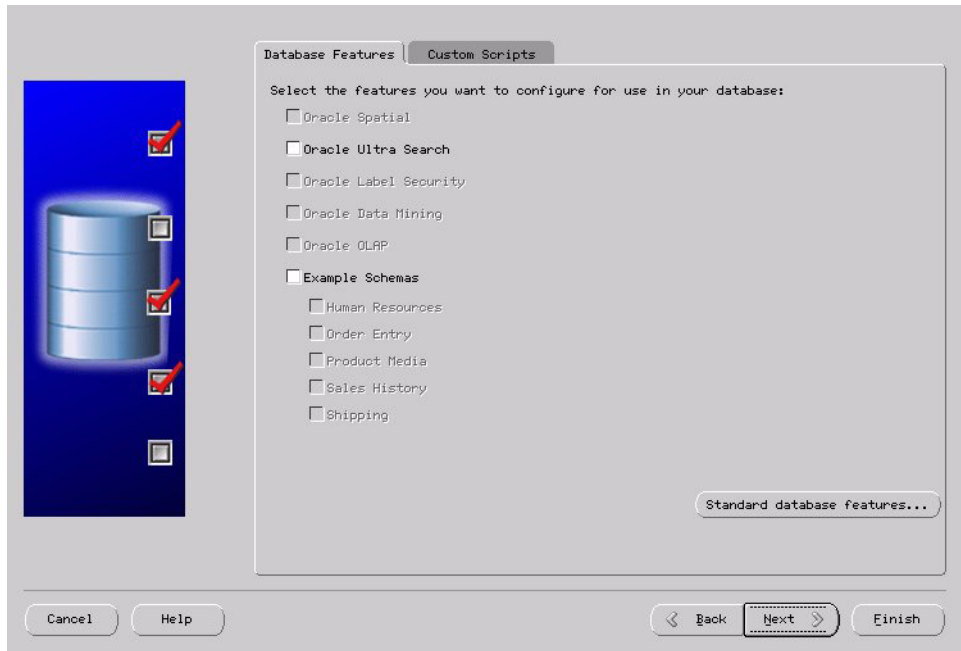
Figure 1-3   Standard Database Components
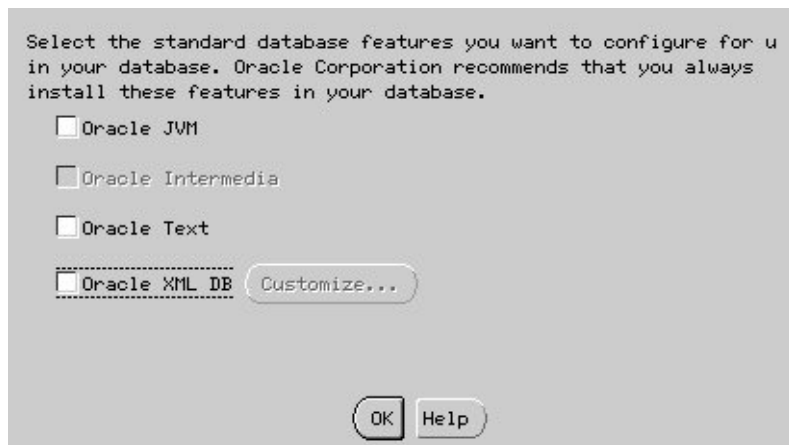
5. In the `Database Connection Options` dialog (Oracle 9i) or Connection Mode tab of the Initialization Parameters dialog (Oracle 10g) select **Dedicated Server Mode**.

6. In the `Character Sets` tab of the `Initialization Parameters` dialog, select a supported character set and `NLS_LANG` values. For example, select **WE8ISO8859P15** for the English database. Refer to Figure 1-4 on page 20.

NOTE	Refer to *OVO Administrator's Reference* for more information on supported character sets and `NLS_LANG` values.

7. Click [All Initialization Parameters] and set initialization
   parameters according to your needs.

Table 1-1   **OVO Recommended Values for Oracle 9i**

Parameter	Value
db_block_size	8192
db_cache_size	81920000
db_file_multiblock_read_count	16
db_files	80
dml_locks	100
log_buffer	1572864
log_checkpoint_interval	99999
max_dump_file_size	10240
open_cursors	1024
processes	200
shared_pool_size	134217728
sort_area_size	262144

Table 1-2   **OVO Recommended Values for Oracle 10g**

Parameter	Value
db_block_size	8192
db_cache_size	81920000
db_file_multiblock_read_count	16
db_files	80
dml_locks	100
log_buffer	1572864
log_checkpoint_interval	99999

Table 1-2   **OVO Recommended Values for Oracle 10g**

Parameter	Value
max_dump_file_size	10240
open_cursors	1024
processes	200
sga_target	367001600
sort_area_size	262144

OVO requires at least 3 redo logs with a size of 20M each. Having more and bigger redo logs may increase the performance. We also recommend that you create mirrored copies of the redo logs on another disk. For more information see the Maintaining OVO chapter in the OVO Administrator's Reference.

Figure 1-4   Database Character Set Dialog
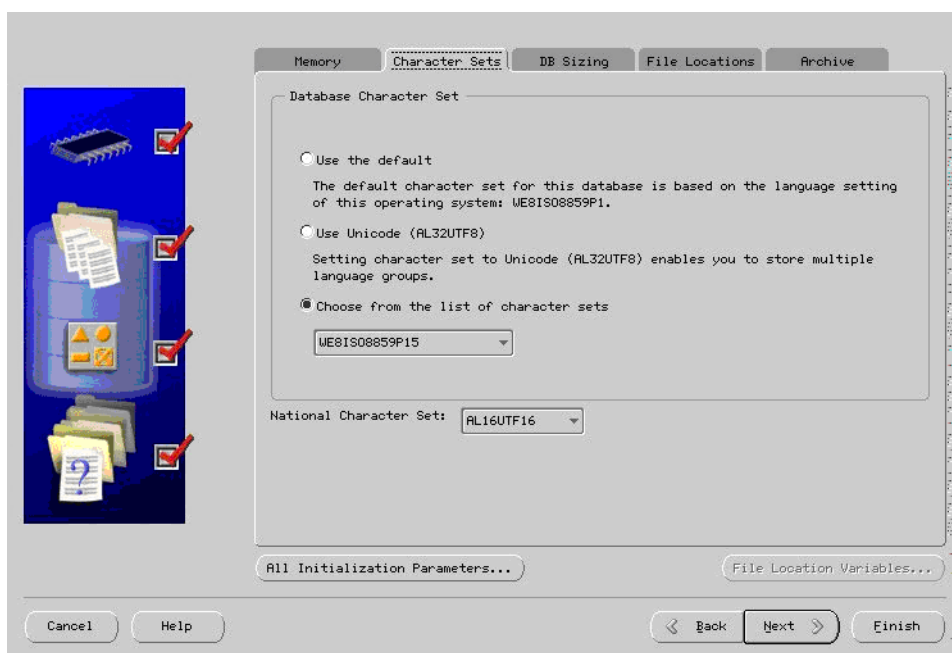
8. Create tablespaces and their datafiles as specified in Table 1-3 on page 21.

   Follow the recommended initial sizes as listed in the table. Create the datafiles as autoextend files, so that the datafiles can grow as needed. Autoextend can be enabled in the "Datafiles" list under the "Storage" tab. Change the TEMP tablespace type to permanent, and set OPC_TEMP as a default temporary tablespace. Refer to Figure 1-5 on page 22 and Figure 1-6 on page 23.

Table 1-3   **Required OVO Tablespaces**

Tablespace Name	Tablespace Type	Datafile	
		Size	Next
SYSTEM	Locally managed/permanent	250M	1M
TEMP	Locally managed/permanent (not temporary)	20M	5M
OPC_1	Locally managed/permanent	4M	6M
OPC_2	Locally managed/permanent	5M	6M
OPC_3	Locally managed/permanent	1M	1M
OPC_4	Locally managed/permanent	26M	2M
OPC_5	Locally managed/permanent	1M	1M
OPC_6	Locally managed/permanent	4M	2M
OPC_7	Locally managed/permanent	4M	2M
OPC_8	Locally managed/permanent	4M	2M
OPC_9	Locally managed/permanent	6M	2M
OPC_10	Locally managed/permanent	6M	6M
OPC_INDEX1	Locally managed/permanent	13M	1M
OPC_INDEX2	Locally managed/permanent	10M	1M
OPC_INDEX3	Locally managed/permanent	10M	1M
OPC_TEMP	Locally managed/temporary	4M	1M

Figure 1-5   Database Tablespaces

Figure 1-6   **Database Datafiles**
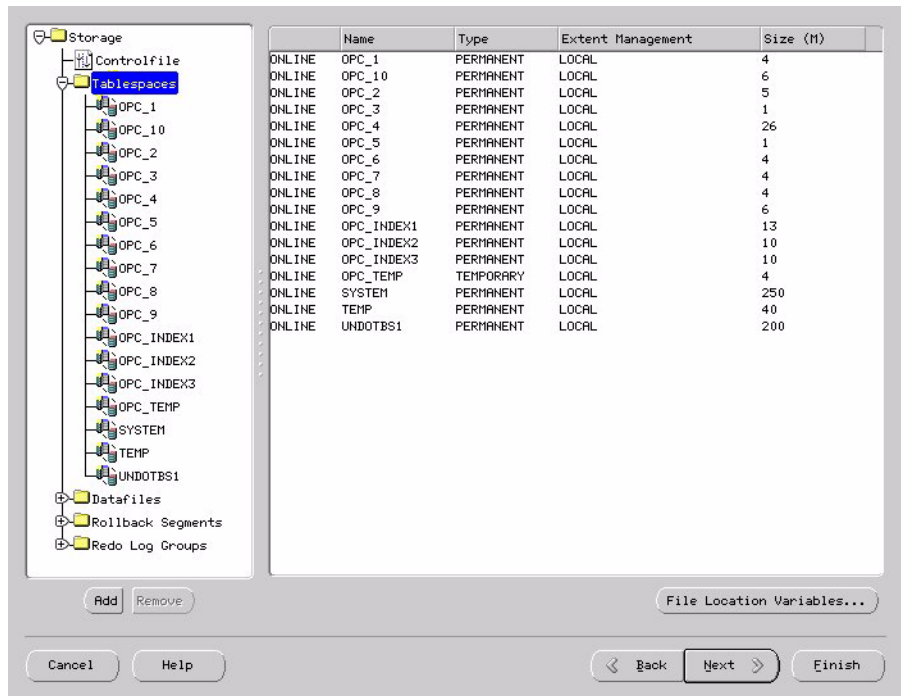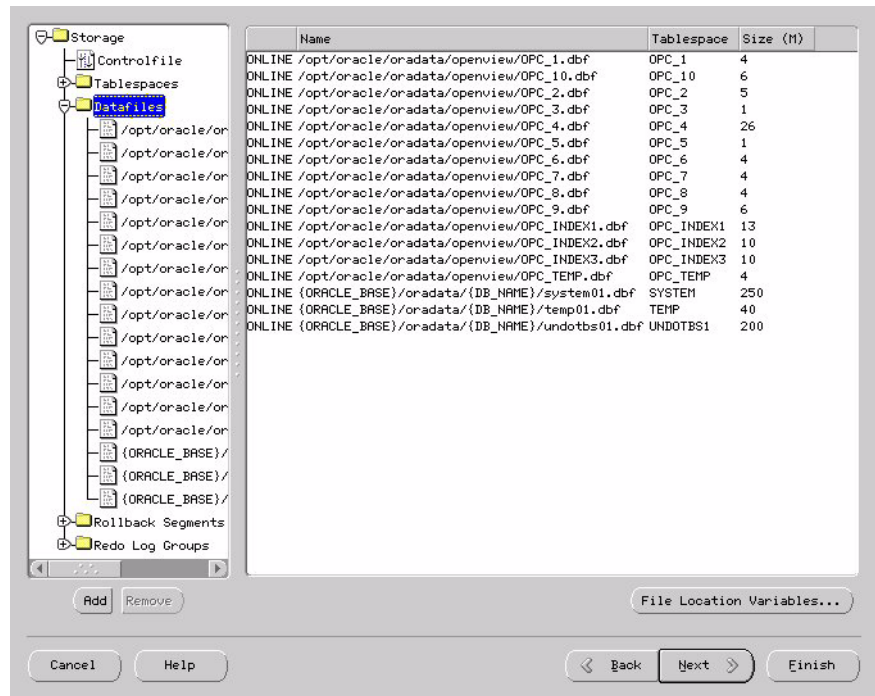

9. Click [Next] to create the database. Select Create Database option
   and click [Finish].

10. When the database is created, define passwords for users system
    and sys.

IMPORTANT   Do not forget the passwords you defined. You will need these
                       passwords for OVO configuration and later on for database
                       administration.

After you successfully created the OVO database using the Database Creation Assistant, manually configure users, passwords, and user rights on the database server. Perform the following steps:

1. Log in as user `oracle` and connect as `sysdba`. Enter the following commands:

   su - oracle
   sqlplus "system as sysdba"

2. Enter the password for user `system`. This is the password you set when creating the database.

3. Enter the following command to create the user `opc_op`:

   create user opc_op identified by *<password>*
   default tablespace OPC_5 temporary tablespace OPC_TEMP;

   For example:
   create user opc_op identified by pwd123
   default tablespace OPC_5 temporary tablespace OPC_TEMP;

4. Enter the following command to create the user `opc_report`:

   create user opc_report identified by *<password>*
   default tablespace OPC_5 temporary tablespace OPC_TEMP;

5. Configure user rights for the users you created. Enter the following commands:

create role opc_report_role;

grant create session to opc_report_role;

grant opc_report_role to opc_report;

grant connect,

      resource,

      create public synonym,

      drop public synonym,

      alter tablespace

      to opc_op;

If you are using Oracle 10g, enter the following command as well:

grant create table , create view to opc_op;

IMPORTANT   The opc_report_role is required and must be created.

6. Optionally, you can configure additional user rights on the database server. The following is needed if you want to use `mondbfile` policy (template) and `opc_odc` tool:

create role opc_monitorer;

grant select on v_$datafile to opc_monitorer;

grant select on v_$log to opc_monitorer;

grant select on v_$logfile to opc_monitorer;

grant select on dba_free_space to opc_monitorer;

grant select on dba_data_files to opc_monitorer;

grant select on dba_extents to opc_monitorer;

grant select on dba_tablespaces to opc_monitorer;

grant select on dba_tables to opc_monitorer;

grant select on dba_indexes to opc_op;

grant select on dba_ind_columns to opc_op;

grant select on dba_cons_columns to opc_op;

grant select on dba_constraints to opc_op;

grant select on v_$parameter to opc_op;

grant select on v_$sga to opc_op;

grant opc_monitorer to opc_op;

IMPORTANT   The `Mondbfile` policy can only run on the database server. If OVO Agent is running on the database server, you can assign the `mondbfile` policy there.

7. To close `sqlplus`, enter **exit**.

Known Problems and Workarounds

1. **Symptom**

   During database creation, a window may pop up with the following
   error displayed:

   `ORA-29807: Specified operator does not exist`

   Solution

   Click `Ignore` and continue with database configuration.

Configuring Access to the OVO Database

To configure access to the OVO database, you need to set up Net Services on the database server. You can either use Oracle tools to configure the Net Services, or create the Net Services manually. You can choose an Oracle Net alias (OVO default is ov_net). You can specify the used Net Services alias when configuring the OVO Management Server.

To create the Net Services files manually, perform the steps below:

1. Configure Net Services, needed on the database server.

   Net files tnsnames.ora and listener.ora are required. Optionally, you can also configure tnsnav.ora and sqlnet.ora files. These files are located in the $ORACLE_HOME/network/admin directory.

NOTE   The syntax in the following examples must be followed completely with new-lines, spaces and tabs.

Example contents of the tnsnames.ora file:

```
ov_net =
  (DESCRIPTION=
    (ADDRESS_LIST=
      (ADDRESS =
       (COMMUNITY=OPENVIEW_COMMUNITY)
       (PROTOCOL=TCP)
       (HOST=hrabal)
       (PORT=1521)
      )
    )
    (CONNECT_DATA=
(SID=openview)
     )
   )
```

Example contents of the listener.ora file:

```
STARTUP_WAIT_TIME_LISTENER = 0

LOG_DIRECTORY_LISTENER = /opt/oracle/product/9.2.0/network/log

LISTENER =
  (ADDRESS_LIST =
    (ADDRESS = (PROTOCOL = TCP)(HOST = hrabal)(PORT = 1521))
  )

CONNECT_TIMEOUT_LISTENER = 10

TRACE_LEVEL_LISTENER = OFF

LOG_FILE_LISTENER = listener
```

Example contents of the tnsnav.ora file:

```
LOCAL_COMMUNITIES =
  (COMMUNITY_LIST =
    (COMMUNITY = OPENVIEW_COMMUNITY)
  )
```

Example contents of the sqlnet.ora file:

```
TRACE_LEVEL_CLIENT = OFF
TRACE_DIRECTORY_CLIENT = /opt/oracle/product/9.2.0/network/log
LOG_DIRECTORY_CLIENT = /opt/oracle/product/9.2.0/network/log
```

NOTE   In all example files change hostname and directory paths information according to your system settings.

2. Start listener. As user `oracle` enter the following command:

```
lsnrctl start
```

Installing OVO

Before you proceed with the OVO installation, verify that your OVO management server system meets the following requirements:

For Oracle 9i:

- Oracle 9i Client 9.2.0.1.0

- Oracle Network Utilities 9.2.0.1.0

- SQL * Plus 9.2.0.1.0

- 9.2.0.2 or higher Patch Set for the Oracle Database Server

To install these products, in the `Available Products` window select `Oracle 9i Client 9.2.0.1.0` and then select `Custom` installation type.

For Oracle 10g:

- Oracle 10g Client 10.2.0.1.0

- Oracle Network Utilities 10.2.0.1.0

- SQL * Plus 10.2.0.1.0

- 10.2.0.2 or higher Patch Set for the Oracle Database Server

To install these products, in the "Select Installation Type" window select Custom installation type.

To set up OVO to use an independent database server system, follow the OVO Management Server installation procedure as described in the *OVO Installation Guide for the Management Server*, but with exceptions in the procedure as described below.

During the installation procedure, answer the following questions as follows:

- `Do you want to set up the database manually (local/remote) (y|n):`

  Answer **y**.

- `Is the manually configured database already set up (y|n):`

  Answer **n**.

When the following message is displayed:

```
Once you are finished with applying patches/setting up the
remote database, answer y to the following question to
continue with the configuration of the database. Do you want
to continue now (y|n):
```

leave the `ovoinstall` window open without answering the question and
in another window perform the procedure below as the root user:

IMPORTANT   This procedure replaces the procedure for setting up an independent
database server, described in the *OVO Installation Guide for the
Management Server*.

1. Install the latest OVO for UNIX Management Server patch (8.23).

2. Export `ORACLE_HOME`, `ORACLE_SID`, and `LANG` (for an appropriate
   `LANG` value refer to *OVO Administrator's Reference*).

3. Copy the following Net files from the Oracle database server to the
   OVO Management Server:

   - `$ORACLE_HOME/network/admin/sqlnet.ora`
   - `$ORACLE_HOME/network/admin/tnsnames.ora`
   - `$ORACLE_HOME/network/admin/tnsnav.ora`

   These files are required on the database server and the OVO
   Management Server. When you copy the files to the OVO
   Management Server, check that the directory paths point to the
   correct locations and modify them if necessary.

NOTE   `tnsnav.ora` and `sqlnet.ora` files are optional. In case you
configured these files on the database server, you should also
configure them on the OVO Management Server.

4. Run `/opt/OV/bin/OpC/opcdbsetup -p`

5. Optionally, if you configured additional user rights on the database
   server in step 6 while creating the OVO database, you can run
   `/opt/OV/contrib/OpC/opc_odc` to verify the database setup (logfile
   is in `/tmp/opc_odc.log`).

Continue the installation procedure in the ovoinstall window. Answer **y** to the previous question and proceed with the installation. For details refer to the *OVO Installation Guide for the Management Server*.