

Backing up and restoring the Oracle database on Windows

This chapter includes the following topics:

- [Performing a cold backup of the Oracle database on Windows](#)
- [About recovering the database on Windows](#)
- [Restoring an existing database on Windows](#)

Performing a cold backup of the Oracle database on Windows

Cold backups are recommended primarily for non-database administrator users.

You perform a cold backup by

- Stopping the Symantec Data Loss Prevention system
- Shutting down the Oracle database
- Copying important files to a safe backup location

If your company has a three-tier installation and its own database administration team and backup policies, you may not need to perform cold backups.

Be aware that Symantec only provides support for the cold backup procedures that are described here.

See [“Oracle hot backups on Windows platforms”](#) on page 68.

Table 5-1 Steps to perform a cold backup of the Oracle database

Step	Action	Description
Step 1	Create recovery aid files.	See “Creating recovery aid files on Windows” on page 64.
Step 2	Collect a list of directories that should be backed up.	See “Collecting a list of files to be backed up” on page 66.
Step 3	Shut down all of the Symantec Data Loss Prevention and Oracle services.	See “Shutting down the Symantec Data Loss Prevention system on Windows” on page 66.
Step 4	Copy the database files to the backup location.	See “Copying the database files to the backup location on Windows” on page 67.
Step 5	Restart the Oracle and Symantec Data Loss Prevention services.	See “Restarting the system on Windows” on page 68.

Creating recovery aid files on Windows

You should create recovery aid files for use in recovery procedures. A trace file of the control file and a copy of the init.ora file are very helpful for database recoveries.

The trace file of the control file contains the names and locations of all of the data files. This trace includes any additional data files that have been added to the database. It also contains the redo logs and the commands that can be used to recreate the database structure.

The init.ora file contains the initialization parameters for Oracle, including the names and locations of the database control files.

To generate a trace file of the control file

- 1 To open Oracle SQL*Plus, navigate to **Windows > Start > All Programs > Oracle - OraDb10g_home1 > Application Development > SQL Plus**.

Refer to the *Symantec Data Loss Prevention Installation Guide* and the *Symantec Data Loss Prevention Oracle Installation and Upgrade Guide*.

- 2 At the `SQL>` command prompt, to connect as the sysdba user, enter

```
connect sys/password@protect as sysdba
```

where *password* is the password created for single-tier and two-tier installations.

See the *Symantec Data Loss Prevention Installation Guide*.

- 3 After receiving the *Connected* message, at the `SQL>` command prompt, enter:

```
alter database backup controlfile to trace;
```

- 4 To find the directory in which the trace file was created, in the next line, enter:

```
show parameter user_dump;
```

- 5 Backup the `init.ora` file:

```
create pfile='C:\Recovery_Aid\init.ora' from spfile;
```

- 6 Run the following command:

```
create pfile='C:\Recovery_Aid\inittemp.ora' from spfile;
```

- 7 Navigate to the directory from step 4.

- 8 In Windows, copy the trace file from the directory in step 4 to the `\Recovery_Aid` subdirectory that you created earlier on the backup computer.

If you have not yet created this directory, create the following directory on a computer other than the computer that hosts the Oracle database:

```
\SymantecDLP_Backup_Files\Recovery_Aid
```

Other trace files are located in the `user_dump` directory. Look for files that end with `controlfile.trc`. Be sure to copy the file with the most recent date and timestamp.

- 9 Rename the file so that it can be easily identified, for example:

```
controlfilebackupMMDDYY.trc.
```

See [“Collecting a list of files to be backed up”](#) on page 66.

See [“Performing a cold backup of the Oracle database on Windows”](#) on page 63.

Collecting a list of files to be backed up

You can create a list of files that need to be backed up. These lists are used in a later step.

To create a list of files for back up

- 1 Open SQL*Plus using the following command:

```
sqlplus sys/<password> as sysdba
```

- 2 Enter following SQL commands to create lists of directories that must be backed up:

```
SELECT file_name FROM dba_data_files
UNION
SELECT file_name FROM dba_temp_files
UNION
SELECT name FROM v$controlfile;

exit;
```

Shutting down the Symantec Data Loss Prevention system on Windows

To shut down the system

- 1 On the computer that hosts the database, navigate to **Start > All Programs > Administrative Tools > Services** to open the Windows Services menu.
- 2 Open the Services menu and stop all running Symantec Data Loss Prevention services, which might include the following:
 - Vontu Update
 - Vontu Incident Persister (on the computers that also host the Enforce Server)
 - Vontu Manager (on the computers that also host the Enforce Server)
 - Vontu Monitor (on the computers that also host a detection server)
 - Vontu Monitor Controller (on the computers that also host the Enforce Server)

- Vontu Notifier (on the computers that also host the Enforce Server)

- 3 Stop the OracleService *databasename*, where *databasename* is the Global Database Name and SID selected during installation.

The database must be named *protect* for Symantec Data Loss Prevention to work correctly.

Refer to the *Symantec Data Loss Prevention Installation Guide*.

See “[Performing a cold backup of the Oracle database on Windows](#)” on page 63.

Copying the database files to the backup location on Windows

The database files that should be backed up include the files in the `\protect` directory and the database password file.

To copy the database files to the backup location

- 1 Make sure that the Oracle services are stopped.

If the Oracle services are not stopped, the backup files may be corrupt and unusable.

See “[Shutting down the Symantec Data Loss Prevention system on Windows](#)” on page 66.

- 2 On the computer that hosts the database, copy the directories (and their contents) using the list of directories that you collected previously (See “[Collecting a list of files to be backed up](#)” on page 66.) to the computer that hosts the backup files. Copy the protect directory into the `c:\Backup_Files\Database` directory of the computer that hosts the backup files.

Note: If you are performing this backup as part of a complete backup of a Symantec Data Loss Prevention deployment, the file path and the name of the computer that hosts the backup files should have been recorded in the Recovery Information Worksheet for reference. Otherwise, create a backup location on a computer that is accessible from the Oracle host.

- 3 On the computer that hosts the database, select the `%ORACLE_HOME%\database\PWDprotect.ora` file and copy it into the `c:\Backup_Files\Database` directory of the computer that hosts the backup files.

See “[Performing a cold backup of the Oracle database on Windows](#)” on page 63.

Restarting the system on Windows

To restart the system

- 1 On the computer that hosts the database, navigate to **Start > All Programs > Administrative Tools > Services** to open the Windows Services menu.
- 2 From the Services menu, start all of the Oracle services:
 - OracleServiceDATABASENAME
 - OracleDBConsole`databasename`

where *databasename* is the Global Database Name and SID selected during installation. For single- and two-tier installations, the database must be named *protect* for Symantec Data Loss Prevention to work correctly.

Refer to the *Symantec Data Loss Prevention Installation Guide*.
- 3 In single-tier and two-tier installations, before starting other Symantec Data Loss Prevention services, start the Vontu Notifier service.
- 4 In single-tier and two-tier installations, start the remaining Symantec Data Loss Prevention services, which might include the following:
 - Vontu Manager (on the computers that also host the Enforce Server)
 - Vontu Monitor (on the computers that also host a detection server)
 - Vontu Incident Persister (on the computers that also host the Enforce Server)
 - Vontu Update
 - Vontu Monitor Controller (on the computers that also host the Enforce Server)

See “[Performing a cold backup of the Oracle database on Windows](#)” on page 63.

Oracle hot backups on Windows platforms

If you are an experienced Oracle database administrator accustomed to managing enterprise-level Oracle installation, you may choose to perform hot backups. If you do, you should also perform archive logging. However, keep in mind that Symantec Data Loss Prevention does not support hot backup procedures and Symantec Support may not be able to provide assistance.

See “[Performing a cold backup of the Oracle database on Windows](#)” on page 63.

About recovering the database on Windows

Based on the type of database failure you experienced, choose the appropriate database recovery procedure:

- If the previous database can no longer be used, create a new database.
- If the database malfunctioned due to a system failure or user error, restore the previously existing database. For example, if an important file was accidentally deleted, you can restore the database to a point in time when the important file still existed.

See [“Restoring an existing database on Windows”](#) on page 69.

Restoring an existing database on Windows

See [“About recovering the database on Windows”](#) on page 69.

To recover the database by restoring the existing database

- 1 Make sure that the database environment is healthy. Check the existing database, the database server that hosts the existing database, and the computer that hosts the database server.
- 2 On the computer that hosts the database, navigate to **Start > All Programs > Administrative Tools > Services**. This navigation opens the Windows Services menu.
- 3 From the Windows Services menu, if you have a single-tier or a two-tier installation, stop all Symantec Data Loss Prevention services, which might include the following:
 - Vontu Update
 - Vontu Incident Persister (on the computer hosting the Enforce Server)
 - Vontu Manager (on the computer hosting the Enforce Server)
 - Vontu Monitor (on the computer or computers hosting a detection server)
 - Vontu Monitor Controller (on the computer hosting the Enforce Server)
 - Vontu Notifier (on the computer hosting the Enforce Server)
- 4 Stop all of the Oracle services.

Refer to the *Symantec Data Loss Prevention Installation Guide*.

- 5 Copy the contents of the `\Backup_Files\Database` directory to the `\oracle\product\10.2.0\oradata\protect` directory on the computer that hosts the new database. The information about the computers and directories is located on the Recovery Information Worksheet.
- 6 To open Oracle SQL*Plus, navigate to **Windows > Start > All Programs > Oracle - OraDb11g_home1 > Application Development > SQL Plus**. This navigation assumes the default locations from the Oracle installation process. This process is described in the *Symantec Data Loss Prevention Installation Guide*.
- 7 At the `SQL>` command prompt, to connect as the sysdba user, enter:

```
connect sys/password@protect as sysdba
```

where *password* is the password created for single- and two-tier installations. See the *Symantec Data Loss Prevention Installation Guide*.
- 8 At the `SQL>` prompt, enter:

```
startup
```