HP Data Protector for PCs – Policy Server migration

Technical white paper

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Abstract

The purpose of this document is to describe the steps needed to migrate an HP Data Protector for PCs (previously called HP Data Protector Notebook Extension) Policy Server from one operating system version to another (for example, if you have a HP Data Protector for PCs Policy Server running on a Windows Server 2003 system and you would like to migrate to Windows Server 2008). HP Data Protector for PCs can be migrated from any supported platform to any other supported platform.

This white paper describes the detailed steps for successfully migrating the operating system (OS) without loss of backup data, and without interrupting service for the attached clients.

HP Data Protector for PCs architecture is fault-tolerant by design. This means that if the Policy Server is not available for some time, end-users can still use HP Data Protector for PCs on their client PCs to perform backups, or to restore data from the Data Vault. This is possible even during a Policy Server OS migration.

In the following scenarios we assume that you will reuse the same hardware. If you are going to replace the hardware, the procedures are identical.

Important:
We do not recommend migrating the OS directly on a running HP Data Protector for PCs installation. This could lead to an unstable HP Data Protector for PCs system and potentially data loss.

Instead we recommend migrating the HP Data Protector for PCs Policy Server to a fresh installed "clean" server. The steps in the following sections describe the procedures in detail.

Note: This document is valid also for previous versions of HP Data Protector for PCs (called HP Data Protector Notebook Extension).

Introduction

HP Data Protector for PCs software is an expansion of HP's high performance backup and recovery software (Data Protector), which is designed specifically for notebooks and desktops. HP Data Protector for PCs ensures the availability of business data on PCs without compromising productivity or mobility. It provides the ability to enforce central protection policies and optimize bandwidth and storage capacity for all notebooks and desktops in the organization.

As an important component of HP's Data Protector product portfolio, HP Data Protector for PCs is an integral part of a complete backup and recovery strategy. Appropriate for companies in any industry, it is the ideal solution for increasing productivity of your employees and avoiding the business risks and costs associated with PC data loss.

Policy Server migration procedures

Depending on the chosen architecture, the steps are slightly different. Please choose the appropriate procedure for your environment.

Prerequisites

- If the server address (IP address) will change, you must request the renewal of the licenses to the new IP address. Make sure you have the new license available *prior to any update activity*.
- If your new server will have a new server name, you must update all connected agents. Depending on the number of connected agents, this might be a cumbersome process. In such cases we recommend *not to change the server name*.
- If you choose to change the server name, please follow the recommendations in the section Policy Server Name change.

- Make sure that there is no Data Vault Cleanup scheduled during migration time.

Configuration 1: External Policy Server database

In this configuration the Policy Server database resides on a dedicated SQL host. This architecture is the ideal situation in which to migrate the Policy Server to a new operating system. The change can be fully transparent to the connected agents.

Figure 1: Configuration 1
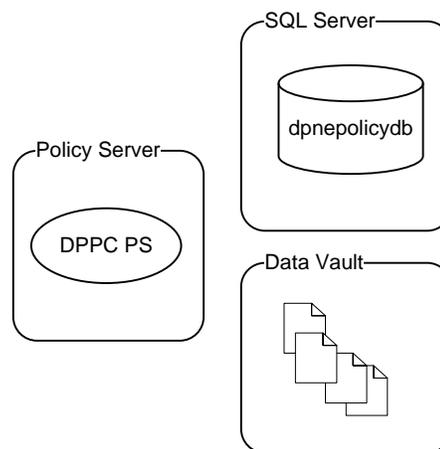
Prerequisites

- The HP Data Protector for PCs Policy Server version should be the same *before and after* the operating system migration. This means you may need to upgrade HP Data Protector for PCs Policy Server to the latest version *before* migrating the operating system.
- Make sure you have administrative access to the external SQL Server Database.

- As a safety precaution make sure you have a recent, valid backup (using your backup software of choice, such as Data Protector) of:
  – HP Data Protector for PCs Policy Server
  – HP Data Protector for PCs SQL Server Database
  – HP Data Protector for PCs Data Vault

Shut down the Policy Server

Use the regular server shutdown procedure.

Install the new operating system

1. Install the new operating system using the Microsoft installation procedures.
2. Configure the same hostname and IP address as before.
3. Install the latest OS patches.

Install HP Data Protector for PCs

Follow the standard procedures for installing HP Data Protector for PCs.

When asked for the Policy Server database, make sure you select "**Use an existing instance of Microsoft SQL Server**" as shown in Figure 2.

Figure 2: Select external database
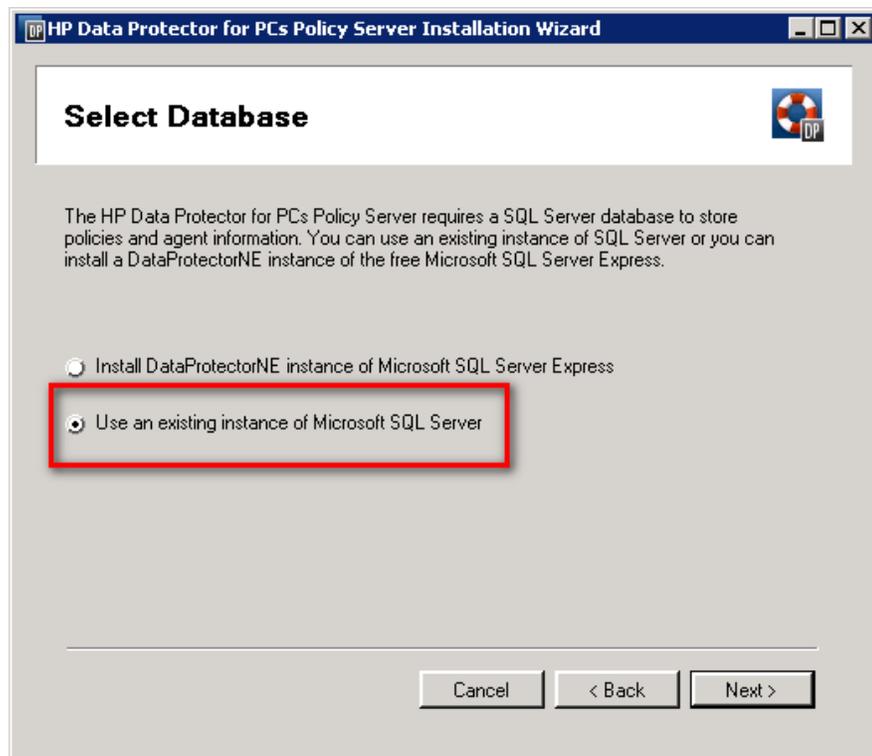
Configuration 2: Internal database and external Data Vault

In this configuration the Policy Server database and the Policy Server itself reside on the same host. This architecture needs some more care and more manual steps.

Figure 3: Configuration 2
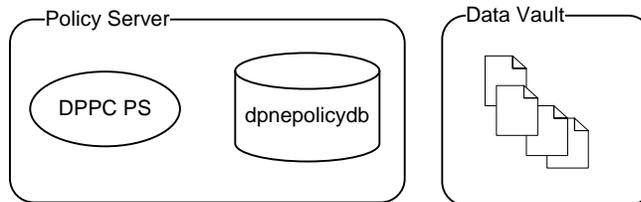
Prerequisites

- Microsoft Management Studio Express is needed to migrate the SQL database. You can download the freeware from: http://www.microsoft.com/downloads/details.aspx?FamilyID=C243A5AE-4BD1-4E3D-94B8-5A0F62BF7796&displaylang=en
  It must be installed before and after the OS migration on the server. Make sure you download the required versions.
- The HP Data Protector for PCs Policy Server version must be the same *before and after* the operating system migration. Make sure you upgrade HP Data Protector for PCs Policy Server to the latest version *before* migrating the operating system.
- Make sure you have administrative access to the external SQL Server Database.
- As a safety precaution make sure you have a recent, valid backup (using your backup software of choice, such as Data Protector) of:
  - HP Data Protector for PCs Policy Server
  - HP Data Protector for PCs Data Vault

Stop the IIS webserver

1. Start the IIS manager (Windows 2003: Control Panel/Administrative Tools/IIS Manager).
2. Stop the web site "Default Web Site" as shown in Figure 4.

Figure 4: IIS Manager (Windows 2003)
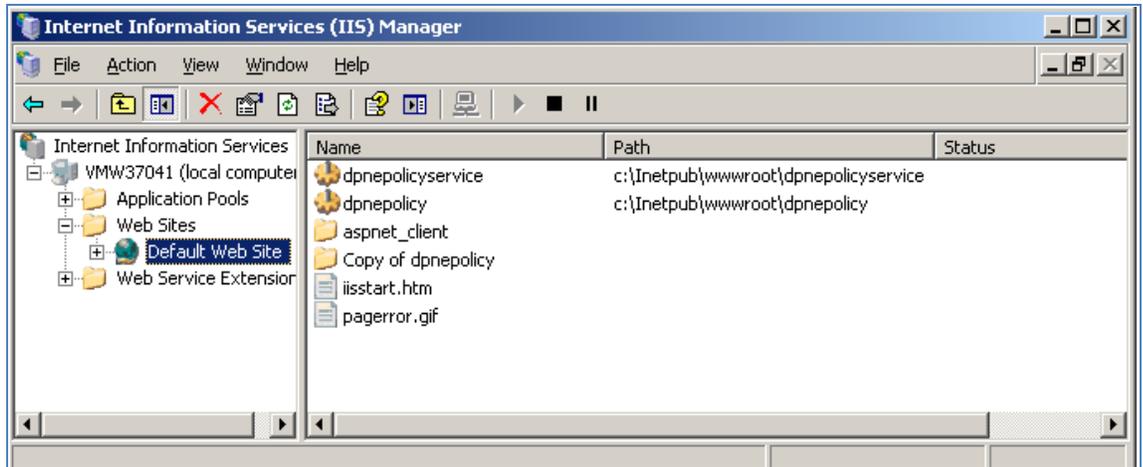
Create a full backup of the dpnepolicydb database

1. Open Microsoft Management Studio Express:

Figure 5: Microsoft Management Studio Express (MMSE)
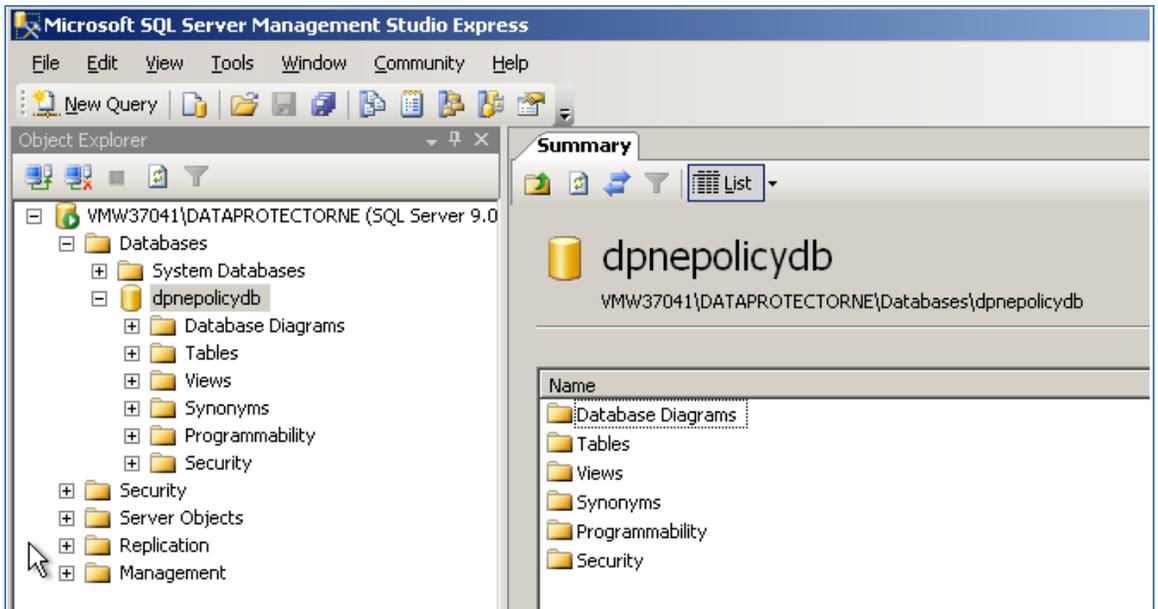
2. Select "**Databases/dpnepolicydb**".
3. Right-click "**Tasks/Back Up…**". The Back Up Database window appears:

Figure 6: MMSE: Back Up Database window
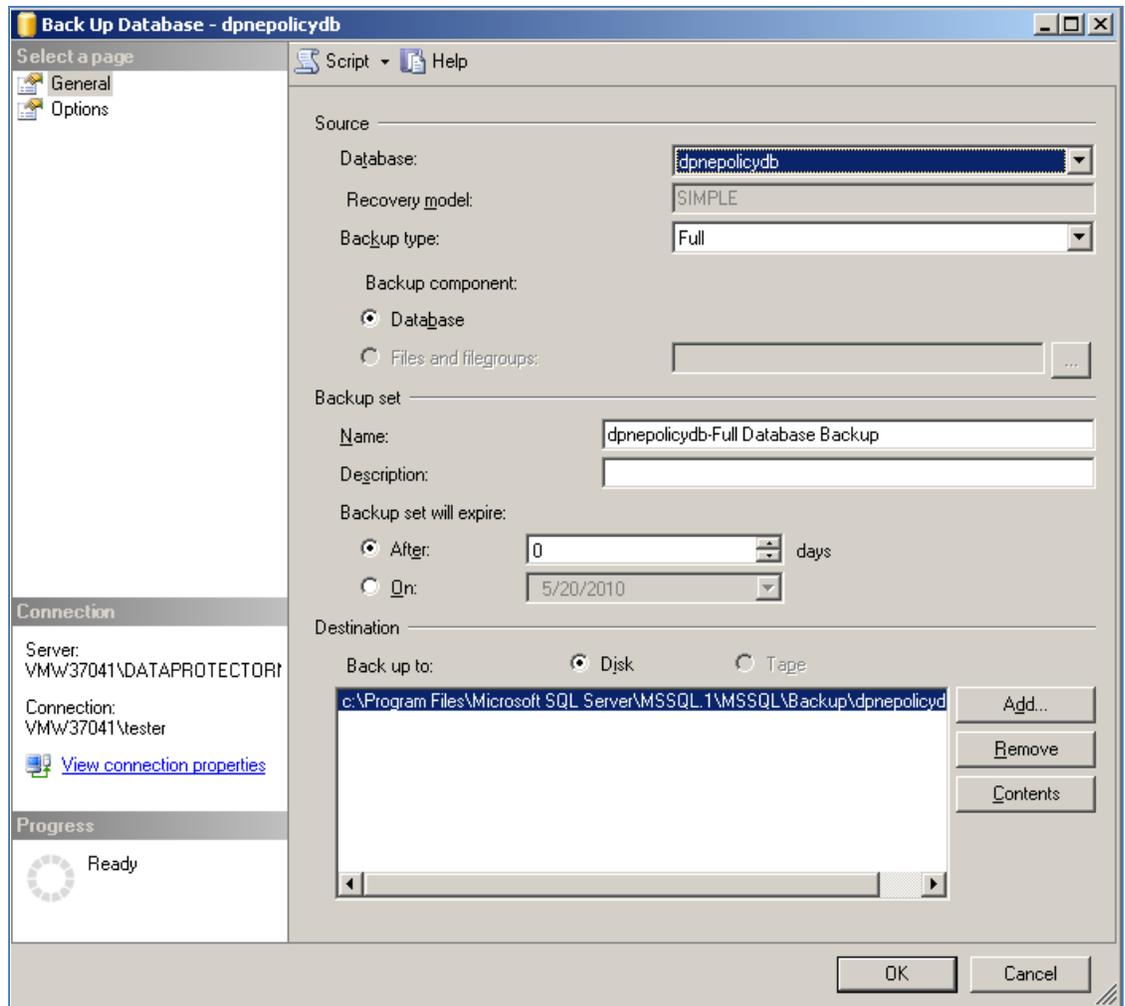
4. "**Add**" a backup destination.
5. Click **OK** to create the backup.
6. Make sure you *save the backup that you have just created in a safe place* for use later (for example, to a network drive, CD, and so on).

Shut down the Policy Server

Use the regular server shutdown procedure.

Install new operating system

1. Install the new operating system using the Microsoft installation procedures.
2. Configure the same hostname and IP address as before.
3. Install Microsoft IIS.
4. Install the latest OS patches.

Install HP Data Protector for PCs

Important: Shut down IIS before installing HP Data Protector for PCs. This ensures agents do not connect to HP Data Protector for PCs Policy Server in a premature condition.

During the installation procedure make sure you select "**Install a new instance of SQL Server Express**" (see Figure 2).

Replacing the database: Delete the newly installed database

1. Open Microsoft Management Studio Express (see Figure 5).
2. Select "**Databases/dpnepolicydb**".
3. Right-click **Delete**. The Delete Object window appears (see Figure 7).

Figure 7: MMSE: Delete Object window
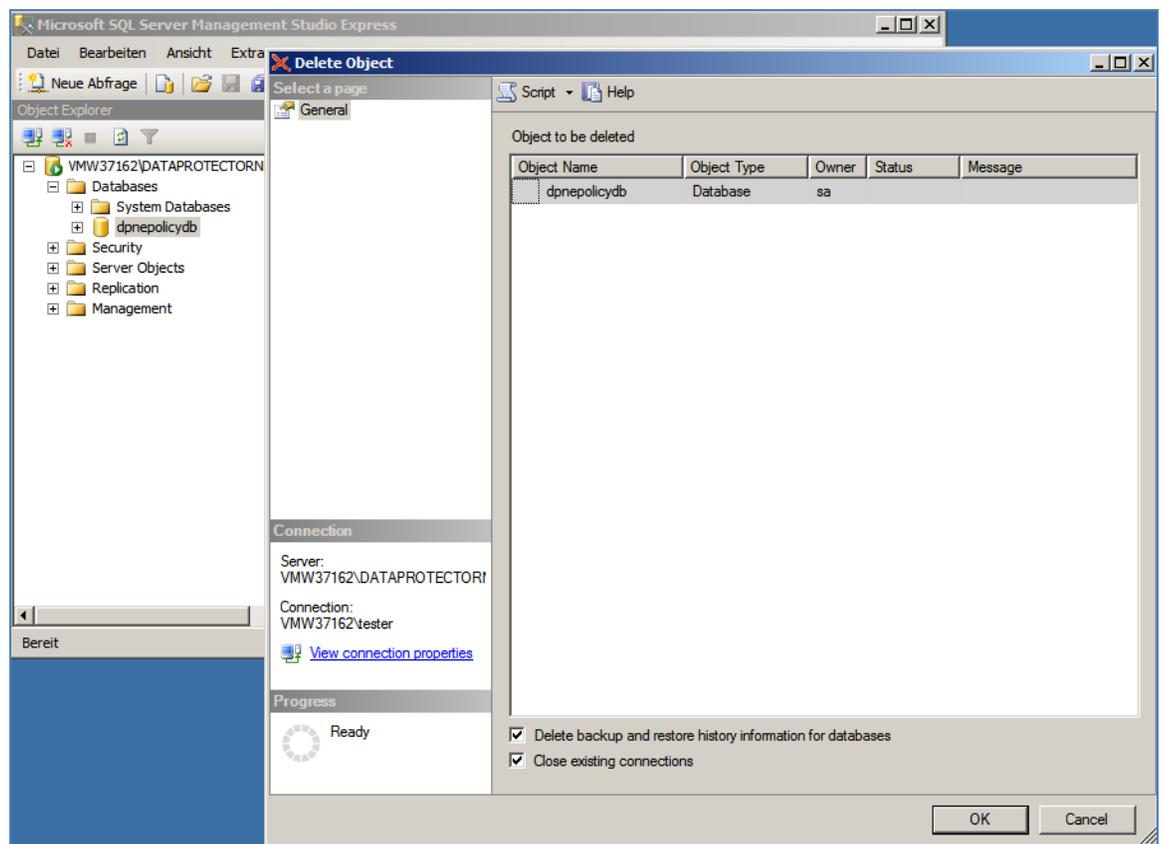
Replacing the database: Restore the backed-up database

1. Open Microsoft Management Studio Express, if it is not still open (see Figure 5).
2. Select **Databases**.
3. Right-click **Restore Database…**. The Restore Database window appears (see Figure 8):

Figure 8: MMSE: Restore Database window
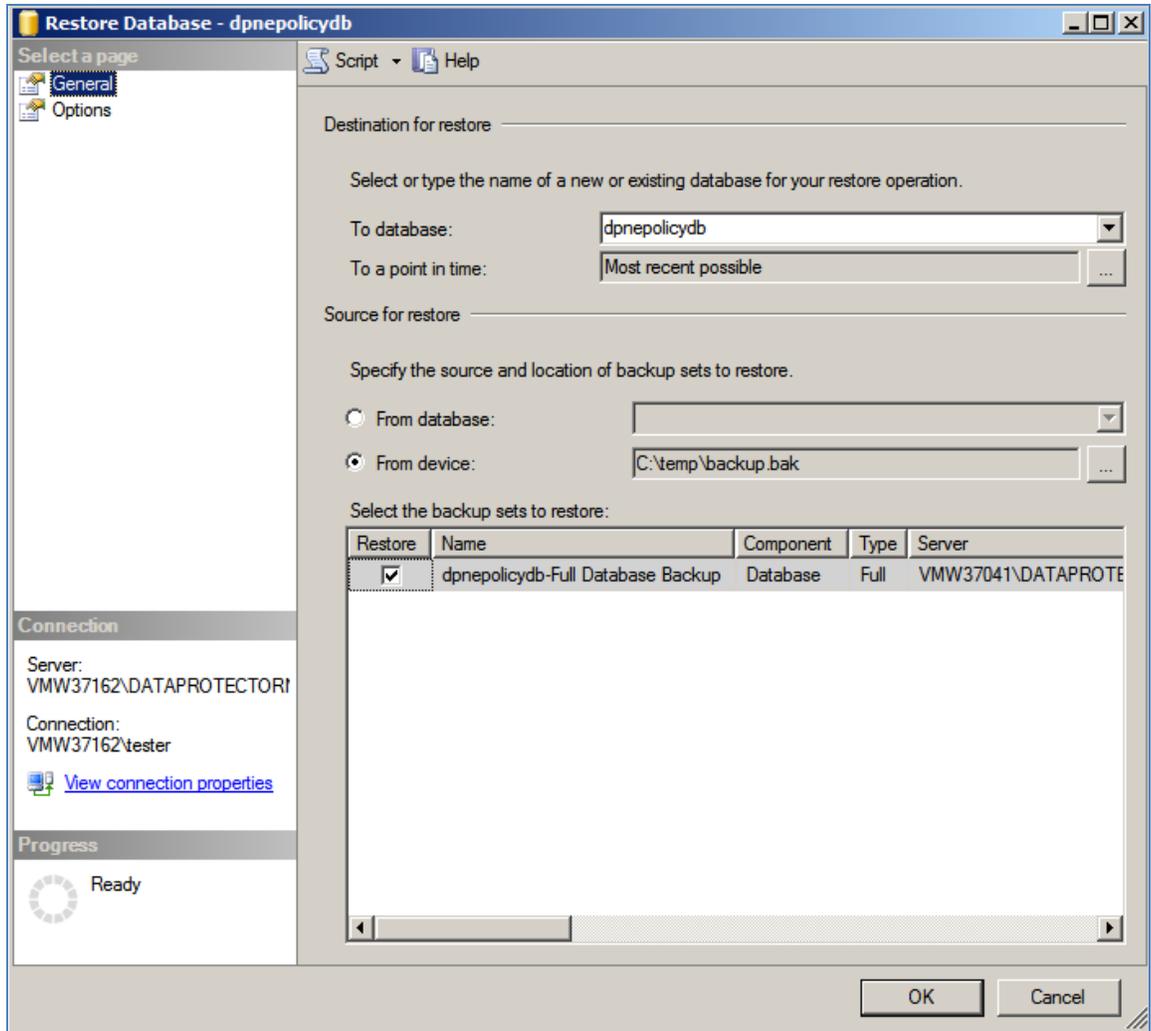
4. Specify the backup file as defined Create Full Backup of dpnepolicydb Database
5. Click **OK**, to start the restore.
6. If you moved your database from a 32-bit to a 64-bit system, the standard location of the databases will have changed and the following error message appears:

Figure 9: MMSE: Error message on 64-bit operating system
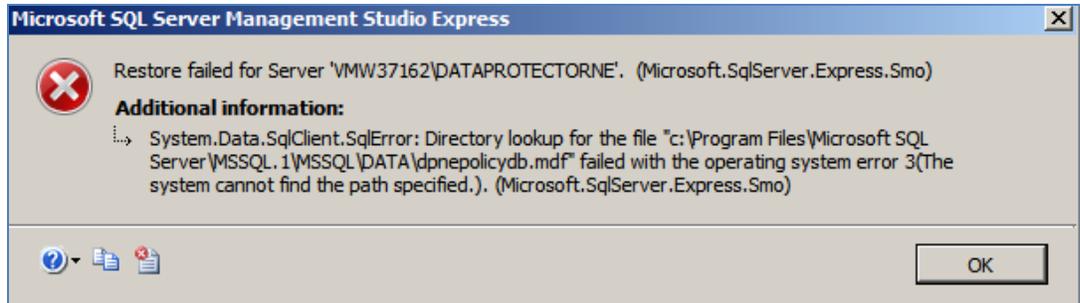
If this happens, change the Restore Location using the "**Options**" dialog, and add " **(x86)**" to the "**Program Files**" path.

Figure 10: MMSE: Change the restore location
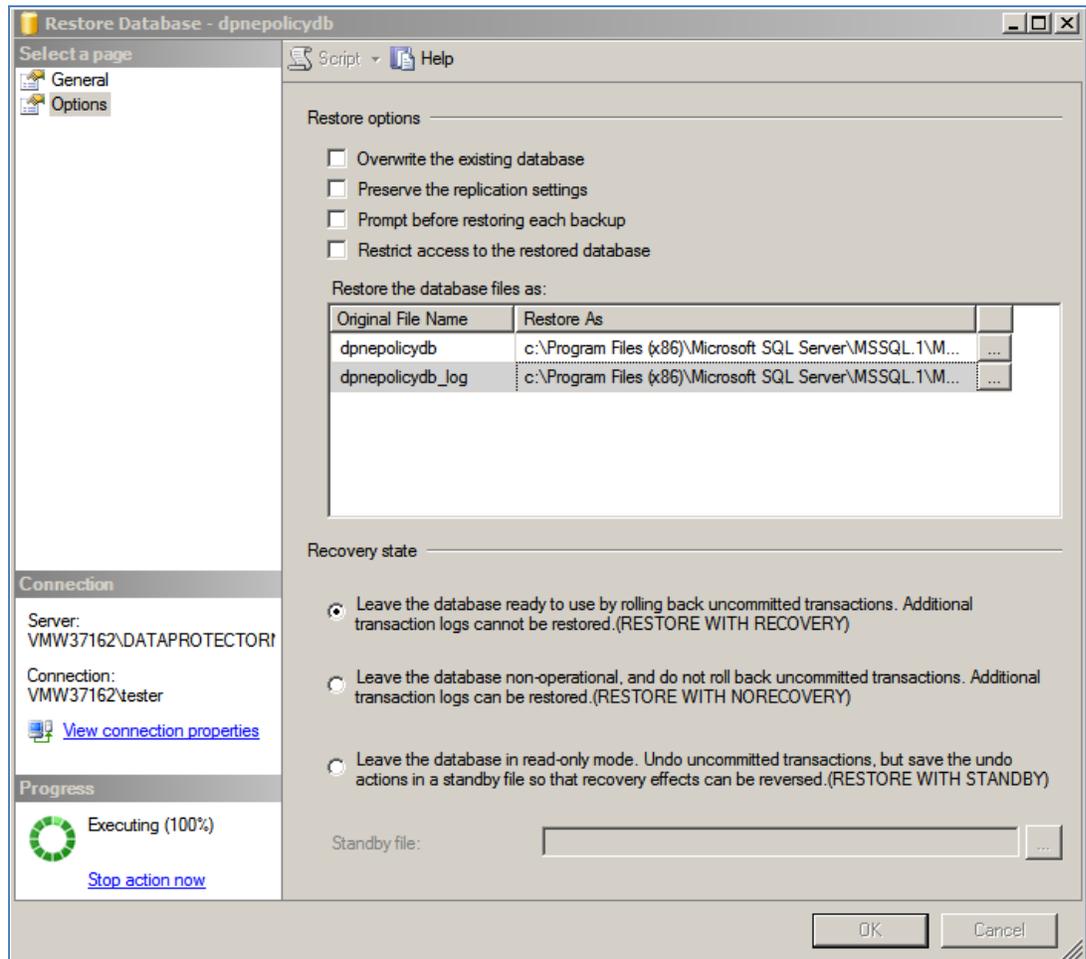
Resolve the orphaned users issue

When a SQL Server database is restored, there is a so-called "orphaned user" issue. This must be resolved, or the database cannot be used by the HP Data Protector for PCs system. When opening the Policy Server Console, users see an error.

Figure 11: Possible error in HP Data Protector for PCs Policy Server Console
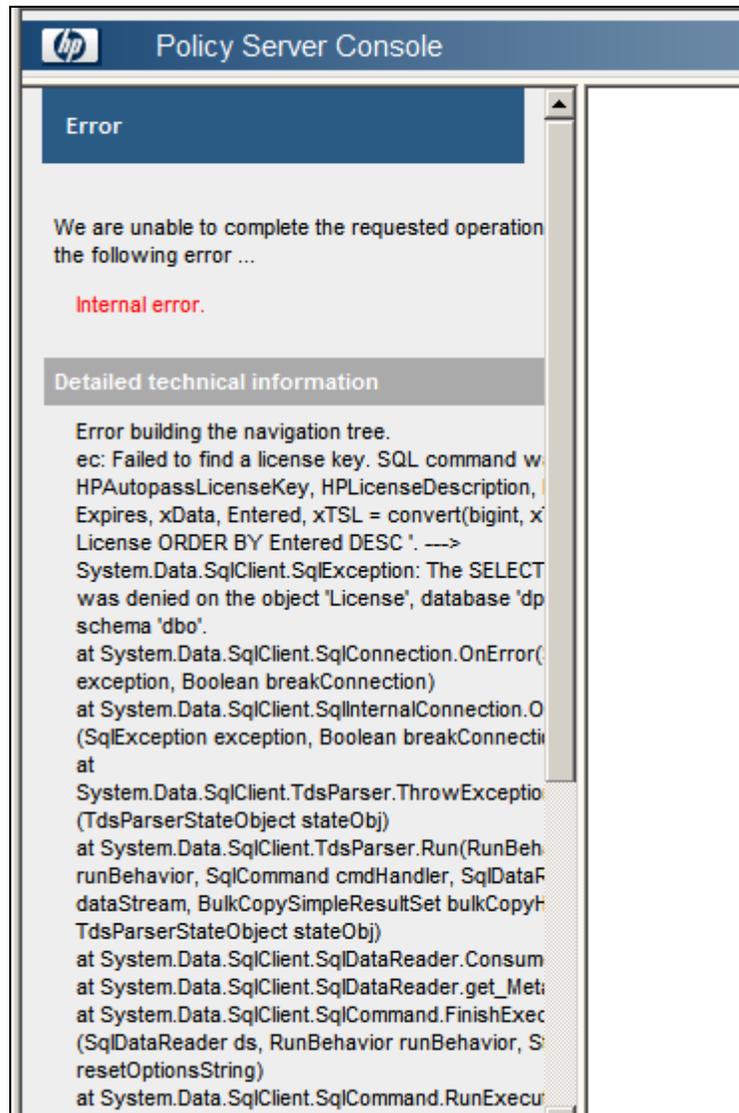
In order to resolve this, execute the following commands using SQL Server Management Studio Express (see Figure 10):

```
use dpnepolicydb
go
exec sp_change_users_login Update_One, 'dpnepolicy', 'dpnepolicy'
exec sp_change_users_login Update_One, 'dpnepolicyservice', 'dpnepolicyservice'
```

Figure 12: MMSE: Resolve orphaned users
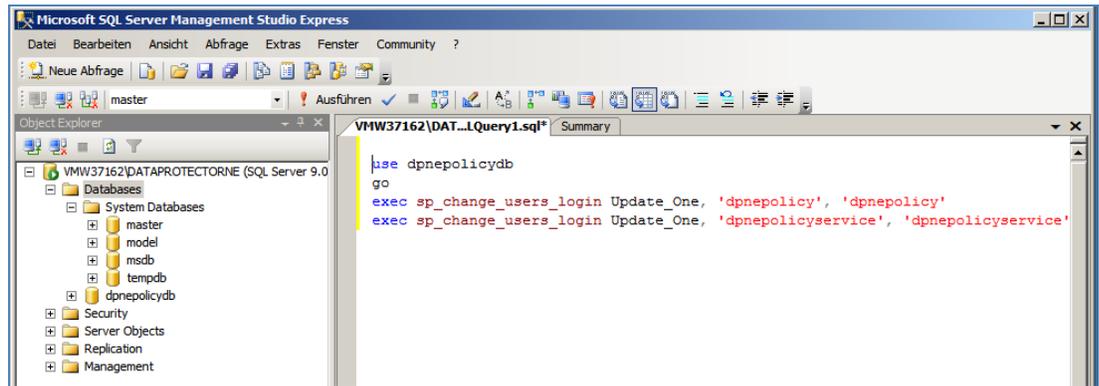
Policy Server name change

We do not recommend that you change the server name after the migration, but if you choose to do so, please follow these steps after you requested the new license from HP Password Delivery Center.

Install the new license obtained from HP

If you have chosen also to set a new IP address, you must install the new licenses:

1. Open the Policy Server Console.
2. Navigate to the "**License Management/Licensing**" section.
3. Click **Add License** to enter the license key that you received from HP.

Migrate Data Vaults

If your centrally-defined Data Vault is located directly on the Policy Server, make sure you change the configuration according to your new server.

It is assumed you have followed steps described in Configuration 1: External Policy Database or Configuration 2: Internal Database and External Data Vault to back up your Data Vault data.

1. Restore your Data Vault data to a location on the server.
2. Open the Policy Server Console.
3. Navigate to "**Policies/Data Vaults/Data Vault Policies**" and select your Data Vault.
4. Adjust the following values according to the new server name (see Figure 13 and Figure 14):
   – Share Path
   – Domain
   – Username/Password
   – Folder Path
   – Cleanup Computer Name

5. Do not forget to click **Save Data Vault Policy**.
6. Click **Test Data Vault Share** to make sure the Data Vault is working.

Figure 13: Migrate Data Vault name (A)
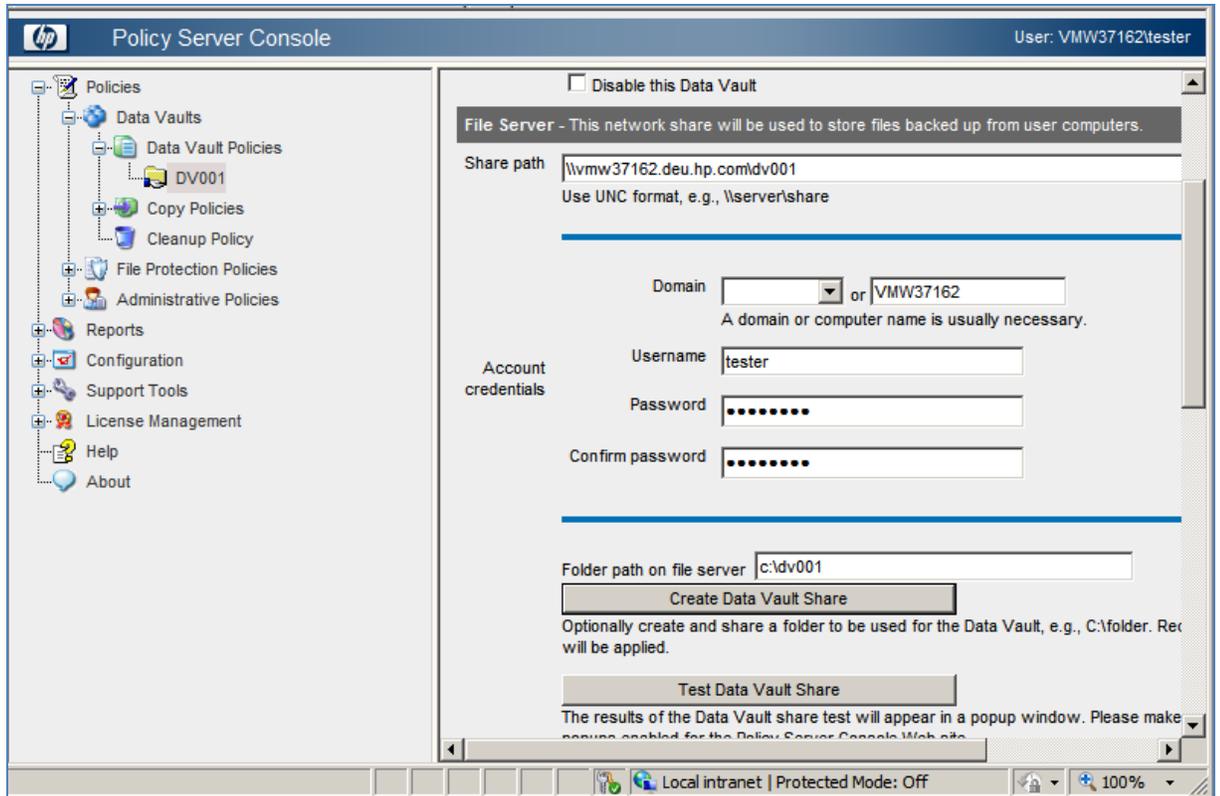
Figure 14: Migrate Data Vault name (B)
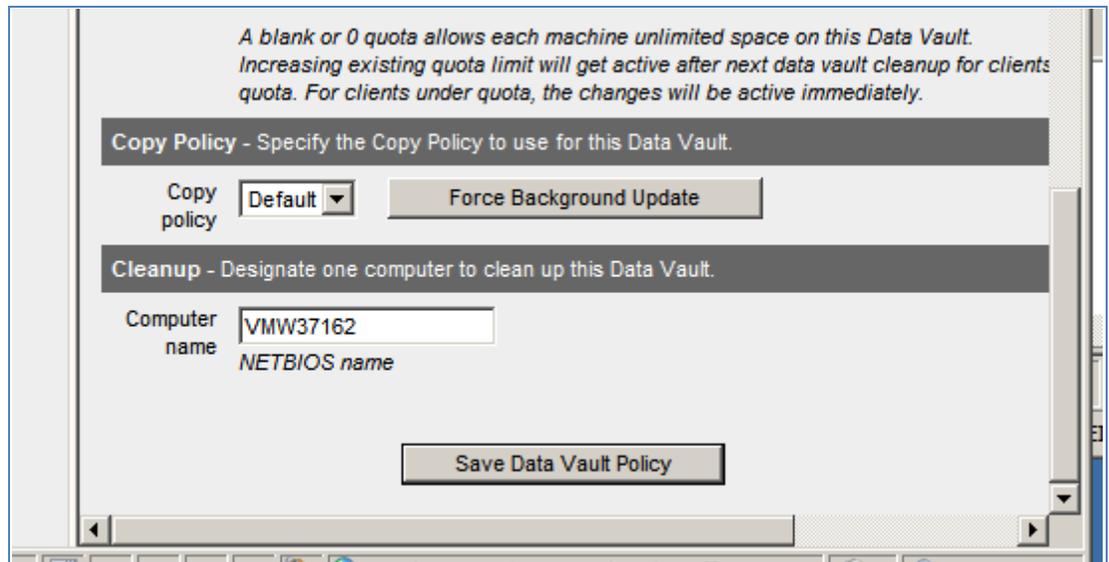
Update all Agents with the new Policy Server name

On every Agent and Cleanup Agent:

1. Open a command line interface (**cmd**).

2. Execute the command:

   32-Bit: `"C:\Program Files\Hewlett-Packard\HP Data Protector for PCs\DPNEUtility –FKEA [newserver]"`

   64-Bit: `"C:\Program Files (x86)\Hewlett-Packard\HP Data Protector for PCs\DPNEUtility –FKEA [newserver]"`

3. Upgraded systems:

   32-Bit: `"C:\Program Files\Hewlett-Packard\Data Protector Notebook Extension\DPNEUtility –FKEA [newserver]"`

   64-Bit: `"C:\Program Files (x86)\Hewlett-Packard\Data Protector Notebook Extension\DPNEUtility –FKEA [newserver]"`

Figure 15: Migrate Agents to new Policy Server
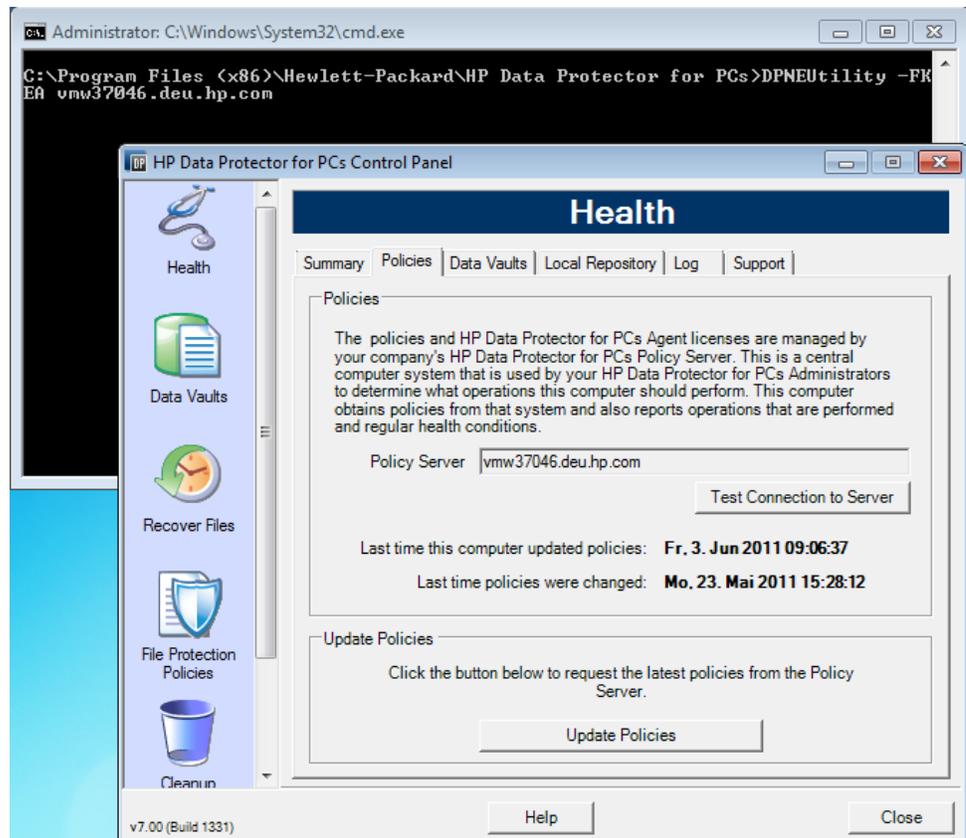
For more information

To read more about HP Data Protector for PCs, go to www.hp.com/go/dppc.

Microsoft Management Studio Express download:
http://www.microsoft.com/downloads/details.aspx?FamilyID=C243A5AE-4BD1-4E3D-94B8-5A0F62BF7796&displaylang=en

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