Zerto

Migrating the Zerto Database to Microsoft SQL Server

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Migrating the Zerto Database to Microsoft SQL Server

Zerto uses an SQL Server to manage data for scalable business continuity software solutions.

Zerto supports two usages of the SQL Server; either an **embedded** SQL Server, which is provided free of charge with the Zerto product or, an **external** SQL Server which is deployed and managed by the customer.

During initial installation, the user can decide which usage of the SQL Server to deploy. The default during installation is the embedded SQL Server database.

When using the embedded SQL Server database, Zerto is limited with the number of resources that can be protected. For details, see Zerto Scale and Benchmarking Guidelines.

After installation, Zerto enables migration from the embedded SQL Server to an external Microsoft SQL Server using a Zerto Database Migration tool. This document specifies how to migrate the Zerto database to an external SQL Server.

You can migrate data between any supported Microsoft SQL Server, or embedded SQL Server databases (Enterprise/Standard) given their respective product limitations.

> **Note:** This document applies to **database migrations** from Zerto version **4.5Ux and later**.
>
> For database migrations from Zerto version **4.0Ux,** see the documentation for that version.

See the following sections:

- Recommendations and Considerations on page 4
- Migrating a Zerto Virtual Replication Database on page 6
- Rolling Back After Database Migration on page 8

Recommendations and Considerations

Read the following topics before you migrate your database.

Recommendations on page 4

Considerations on page 4

Verify SQL Permissions and Roles on page 4

Recommendations

- For SQL Server sizing recommendations, see Zerto Scale and Benchmarking Guidelines.
- Zerto uses username/password authentication. This is because using Windows credentials requires a manual change of the Zerto Virtual Manager Service account (step 9 on page 6 > Authentication parameter).
- Although Zerto supports SQL Server Enterprise/SQL Express Server/SQL Server Standard editions, when migrating to an external SQL Server service, Zerto recommends using Standard or Enterprise edition.

Considerations

- Migration between Microsoft SQL Server / embedded SQL Server database is performed using the Zerto Database Migration tool. For supported Microsoft SQL Server versions, see the Interoperability Matrix.
- The minimum hard disk size for an external database installation is **30GB**.

> **Note:** Some ZVM configurations might have a higher minimum. Review any indication that more storage is needed.

- When migrating the data, you can use either **SQL Server authentication** or **Windows authentication**.

  Zerto **recommends** that you use SQL Server authentication.

Verify SQL Permissions and Roles

- To use **SQL authentication**, the user must have **DB Owner** credentials.
- The user must have the following permissions set:
  - **Public** and **dbcreator** server roles.
  - Both **Database User** and **Default Schema** must be defined as **dbo**.
  - Permission to connect to the database engine.
  - Login enabled.

- In **User Mapping** choose the **master** database under which to create the Zerto database and set both **db_owner** and **public** for database role membership.

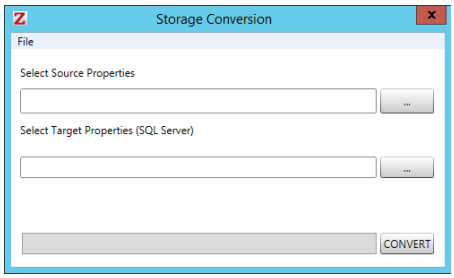
Now continue to Migrating a Zerto Virtual Replication Database on page 6.

Migrating a Zerto Virtual Replication Database

To migrate the database:

1. From **myZerto > Support & Downloads > Software Downloads > Tools tab**, select and download the zip file for **Zerto Virtual Manager Database Migration Tool** according to your current **Zerto Virtual Manager** version. The Zerto.Storage.ConversionTool.zip file is downloaded.
2. Save the **Zerto.Storage.ConversionTool.zip** file to the host running Zerto Virtual Manager, and to whose database you want to migrate.
3. Extract the **Zerto.Storage.ConversionTool.zip** files to a folder.
4. **Stop** the **Zerto Virtual Manager** service on the host to which you saved the Zerto.Storage.ConversionTool.zip file.
5. You **must backup** the **storage_properties.xml** file.
6. If you have SQL Server Compact edition, also backup the **Zvm.sdf** file. The default location is: **C:\Program Files\Zerto\Zerto Virtual Replication**
7. Rick click the file **Zerto.Storage.Conversion.exe**, and select **Run as Administrator**.

   The Storage Conversion tool wizard opens.



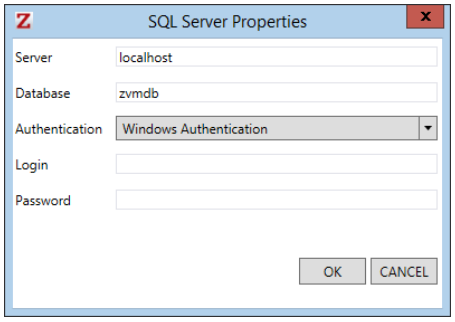
8. In the **Select Source Properties** area:
   a. Click the **...** (More) button and navigate to the file, **storage_properties.xml**.

      This file contains the properties of the Zerto Virtual Replication database.

      For Example: **C:\Program Files\Zerto\Zerto Virtual Replication\storage_properties.xml**

   b. Click **Open** to select the file.
9. In the Select **Target Properties (SQL Server)** area, click the **... (More)** button.

   The SQL Server Properties window opens, showing the default values for the **Server** and **Database** fields.



a. Define the following fields as required:

- **Server:** The SQL server instance name.

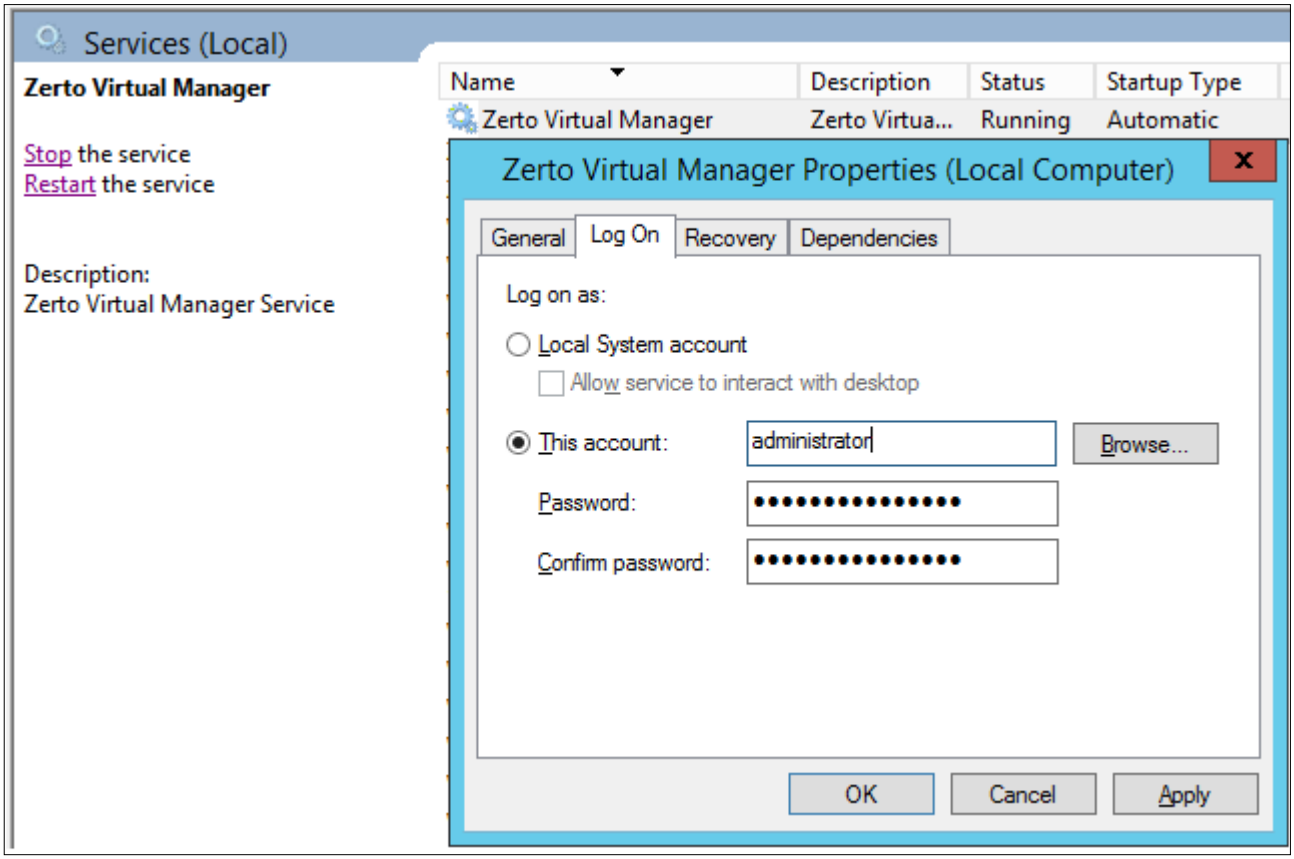
  This is the IP address or DNS of the SQL Server and SQL Server instance name in the form of: **IP>\<InstanceName>**

  For Example: **123.123.123.123\MSSQLSERVER**

- **Database:** The name of the Zerto Virtual Manager database.

- **Authentication:** Select the authentication method from the drop-down list, either: **Windows Authentication** or **SQL Server Authentication**.

  If the migration is to an **SQL Server** and you are using **Windows Authentication**, the Zerto Virtual Manager Service must use a user that can be authenticated by the SQL Server.



- **Login**: If you selected **SQL Authentication** method, this field is **mandatory**.

  If you selected **Windows Authentication**, this field is disabled.

- **Password:** if you selected **SQL Authentication** method, this field is **mandatory**.

  If you selected **Windows Authentication**, this field is disabled.

b. Click **OK**.

> **Note:** **Note:** If you selected **SQL Authentication**, the **OK** button is disabled until you enter the appropriate **Login** and **Password** credentials.

10. You are now ready to begin the database migration.

    - To estimate how long the migration process might take, look at the **database file size**:
      - If the embedded database file is **less than 100 MB,** the migration process should take around 2 minutes.
      - If this file is **less than 1 GB**, the migration process should take around 10 minutes.

      These time estimates assume a good network connection between SQL Server and the Zerto Virtual Manager.
    - The database files are stored in either one of the following:
      - In the folder where Zerto is installed (.SDF file)

      - or -

      - In **<Zerto Installation Root Driver>:\programdata\zerto\data** (.MDF file)

        For Example: **C:\programdata\zerto\data**

11. In the Storage Conversion window, click **CONVERT**.

    The database migration begins.

12. After the database migration ends, **start** the **Zerto Virtual Manager** service.

> **Note:** To rollback the database after database migration, contact Zerto Support.

Rolling Back After Database Migration

If you need to rollback the database after database migration, contact Zerto Support.

Zerto

Zerto enhances the Zerto the Zerto Platform by converging disaster recovery and backup to deliver continuous availability within a simple, scalable platform. Zerto delivers enhanced analytics, platform improvements and cloud performance upgrades required in the future of IT resilience.

Learn more at Zerto.com.

For assistance using Zerto's Solution, contact: @Zerto Support.

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