

## Protecting Microsoft SQL

<https://campus.barracuda.com/doc/78156837/>

Barracuda Backup follows the lifecycle policy of each supported vendor and does not support versions that are end of life or end of support as indicated by the product vendor.

Barracuda Backup is capable of using two different methods to protect Microsoft SQL databases; Microsoft Virtual Device Interface (VDI) and Microsoft Volume Shadow Copy Service (VSS). Due to recommendations by Microsoft and backup and recovery options, Barracuda Networks recommends using VDI to perform Microsoft SQL backups.

### Understanding VDI and VSS

By default, backups are configured for VDI or VSS depending on which version of Microsoft SQL Server is installed. For Microsoft SQL Server 2008 and 2008 R2, Barracuda Backup is configured to use VDI by default to perform database backups. With VDI, Barracuda Backup performs full (complete) and incremental database backups.

For Microsoft SQL Server 2012 and higher, Barracuda Backup is configured to use Microsoft VSS by default to perform the database backups. With Microsoft VSS, Barracuda Backup performs full (complete) and differential database backups.

Unless you have a specific need or requirement to perform differential backups, configure the Barracuda Backup Agent to perform VDI backups, even for Microsoft SQL 2012 and higher.

### Enable VDI Backup on Microsoft SQL Server 2012 and Higher

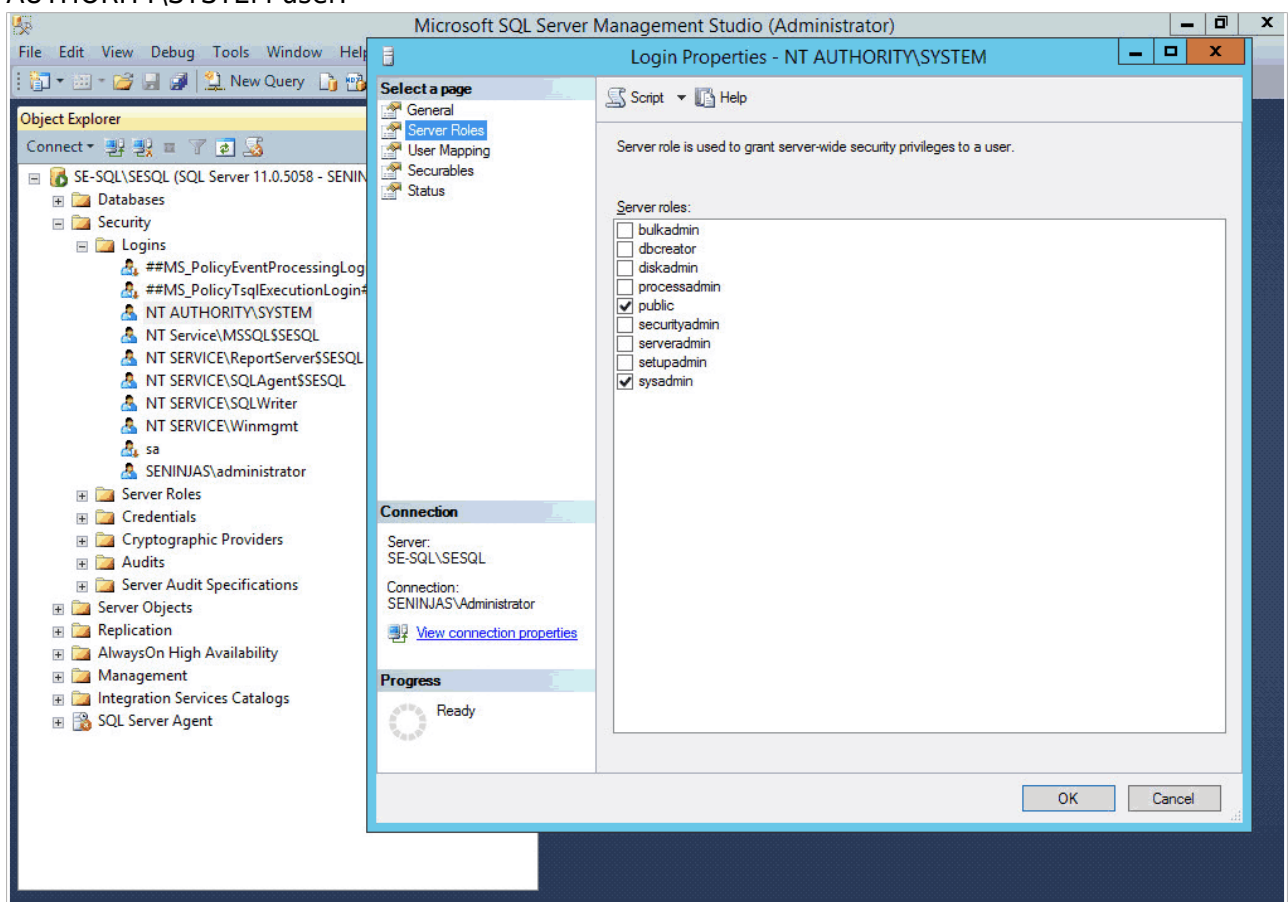
Due to recommendations by Microsoft and backup and recovery options, Barracuda Networks recommends using VDI to perform backups of Microsoft SQL.

For Microsoft SQL Server 2012 and higher, Barracuda Backup uses Microsoft VSS by default to perform the database backups. With Microsoft VSS, Barracuda Backup performs full and differential database backups. Unless you have a specific need or requirement to perform VSS or differential backups, enable VDI which provides the ability to perform incremental backups, by configuring the Barracuda Backup Agent for Windows.

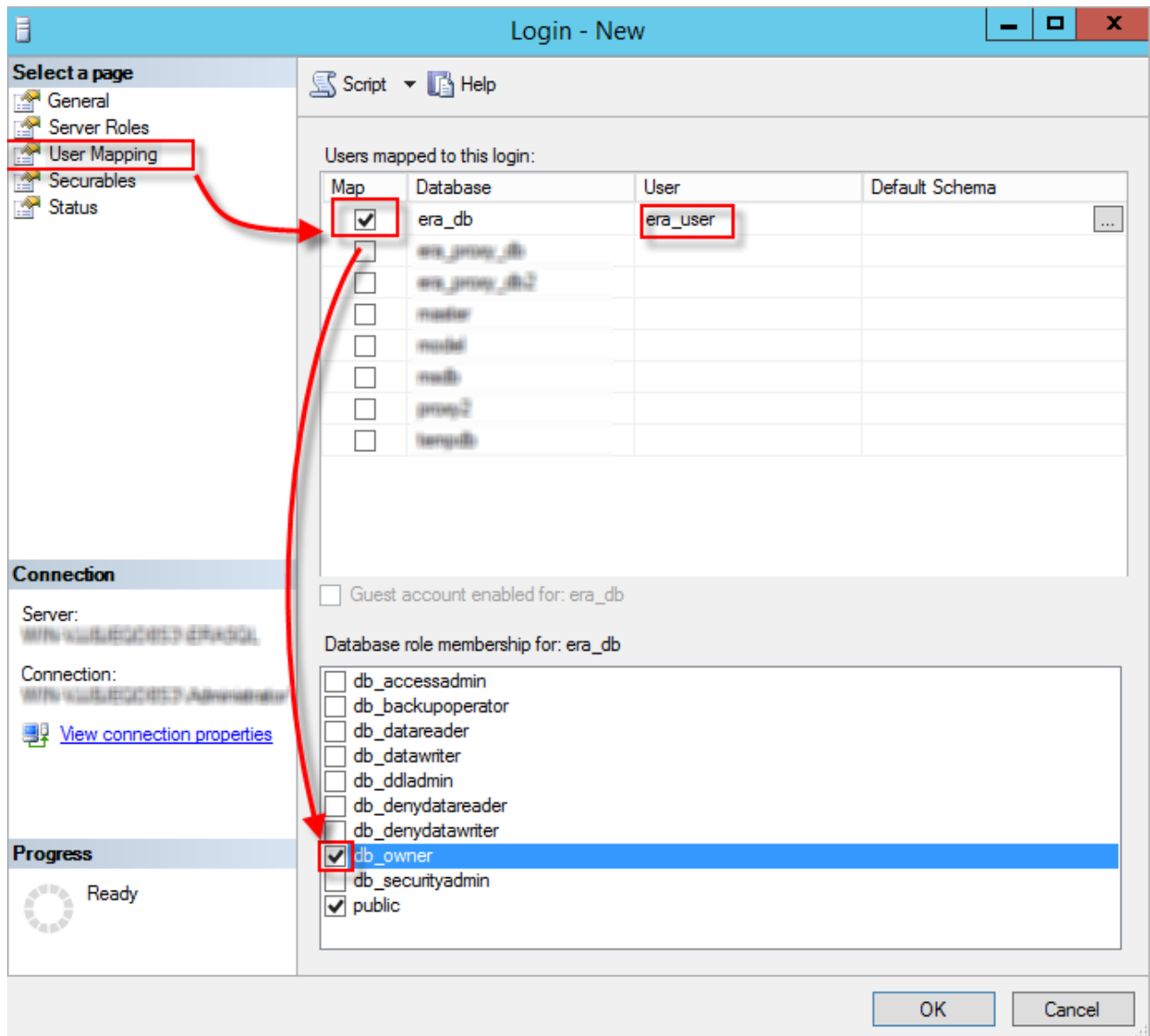
Perform the following steps to edit the Barracuda Backup Agent installed on the Microsoft SQL Server

to use the VDI backup method:

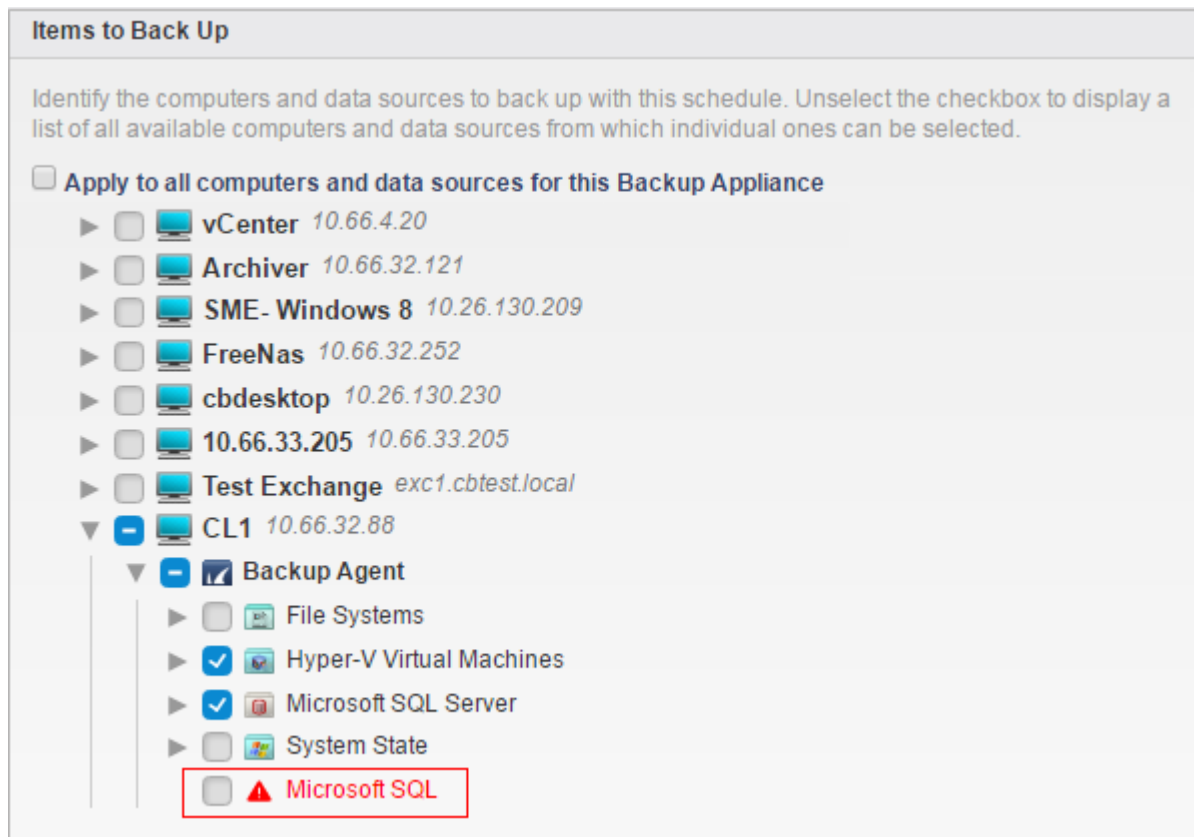
1. On the Microsoft SQL Server where the Barracuda Backup Agent is installed, open the **Services** console.
2. Right-click on the Service **Barracuda Backup Agent**, and click **Stop**. The Service is now stopped.
3. Open the **config.ini** file in Notepad as an administrator; the default file location is:  
**C:/Program Files/Barracuda/Barracuda Backup Agent/config/config.ini**
4. Set `vssSqlVersion=20` under the configuration section in the file. For example:  
[installControl]  
buildNumber=xxxxx  
installedVersion=x.x.x.x  
[configuration]  
**vssSqlVersion=20**
5. Save and close the file.
6. Ensure the server has the proper permissions in SQL Management studio under the NT AUTHORITY\SYSTEM user.



**Note:** If the NT AUTHORITY\SYSTEM user is disabled or not an option, the SQL Management studio admin user needs to have **db\_owner** and **public** rights under the **User Mapping** settings for the SQL database.



- Open **Services** once again.
- Right-click on the Service **Barracuda Backup Agent**, and click **Start**. The **Status** field should display as **Started**.
- Once the service is restarted, go to the data source schedule.
- Select the parent object that includes the new container for SQL, or, if you are not backing up the entire parent object, clear Microsoft SQL and select Microsoft SQL Server:



## SQL Recovery Models

When using VDI to back up Microsoft SQL, configure the SQL Recovery Model to use the Full Recovery Model. In the Full Recovery Model, SQL keeps transaction logs, which enable Barracuda Backup to perform full and incremental backups.

If the Microsoft SQL Server databases in your environment are configured to use the Simple Recovery Model, transaction logs are not kept, which prevents Barracuda Backup from performing incremental backups. This results in Barracuda Backup attempting to perform an incremental backup, and, unable to do so, reverting to a full (complete) backup. A warning is included in the backup report about the database being configured for Simple Recovery Model.

## Microsoft SQL Server Database Backup

When installed on a Microsoft SQL Server, the Barracuda Backup Agent for Windows automatically detects the presence of Microsoft SQL based on the SQL VSS Writers. When adding a SQL Server as a data source to Barracuda Backup, a Microsoft SQL container item is present, allowing you to back up the entire SQL instance or individual databases.

Use the following steps to configure a SQL Server data source:

1. Log into Barracuda Backup and select the associated Barracuda Backup device in the left pane.
2. Install the Barracuda Backup Agent on the SQL Server. The Agent is available on the **System > Software Downloads** page.
3. Go to the **Backup > Sources** page, and click **Add a Computer**.
4. Complete the following information on the **Add a Computer** page:
  1. **Computer description**
  2. **Computer name**
5. In the **Computer type** drop-down menu, select **Microsoft Windows**.
6. After the SQL data source is configured, click **Save**.
7. The **Add Data Source** page displays. Finish configuring the backup schedule name, the offsite replication destination, and click **Save**.
8. After the data source is configured, the **Schedules** page displays. For more information on backup scheduling, see [Backup Scheduling](#).

## Figures

1. SQL\_VDI\_Permissions.png
2. sql\_db\_user.png
3. SQLUpdate\_Schedule.png

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