

StarWind SMI-S Agent:

Storage Provider for SCVMM

April 2012

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REQUIREMENTS

This technical paper describes how to enable the StarWind SMI-S Provider for use with the SC Virtual Machine Manager. To complete the installation process successfully, you need to have a customized network infrastructure, configured DNS service, and at least two servers in a domain. One of the servers should have previously installed the SCVMM service, while another one has StarWind iSCSI SAN that supports multi-LUN targets (v5.8 and later).

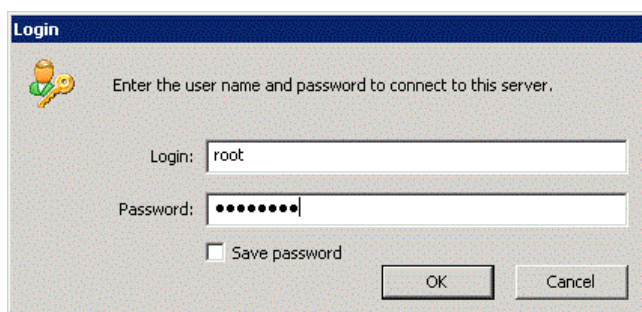
CONFIGURING THE STARWIND STORAGE SERVER

Create a new target:

1. Launch the **StarWind Management Console** by clicking **Start -> All Programs -> StarWind Software -> StarWind -> StarWind Management Console**.

Note: The **StarWind Console icon** appears in the system tray, when the **Console** is running. To open **StarWind Management Console**, double-click or right click its icon. Then, select **Start Management Console** from the shortcut menu.

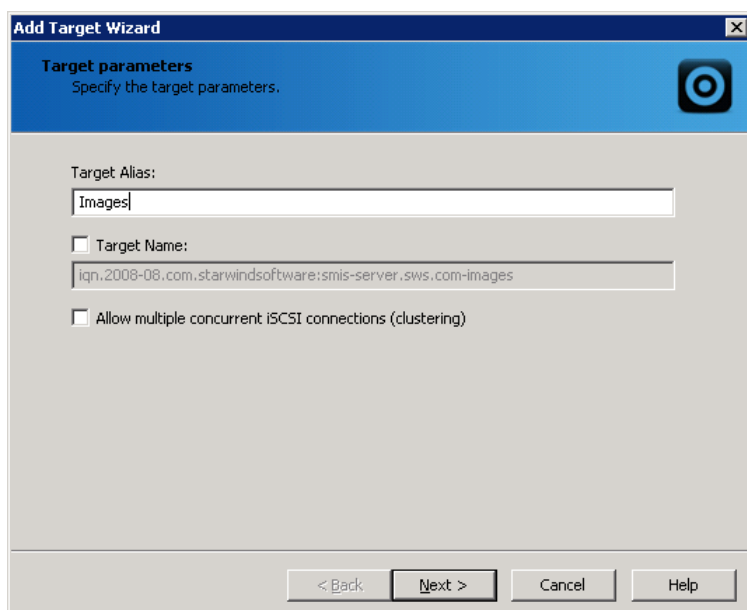
2. From the **Console tree**, select the server you want to provide with the iSCSI target device.
3. Double-click the host to connect.
4. You will be prompted to enter your login and password. The default login and password are “**root**” and “**starwind**”. You can always change them later.



Note: Optionally select the **Save password** checkbox to save a password.

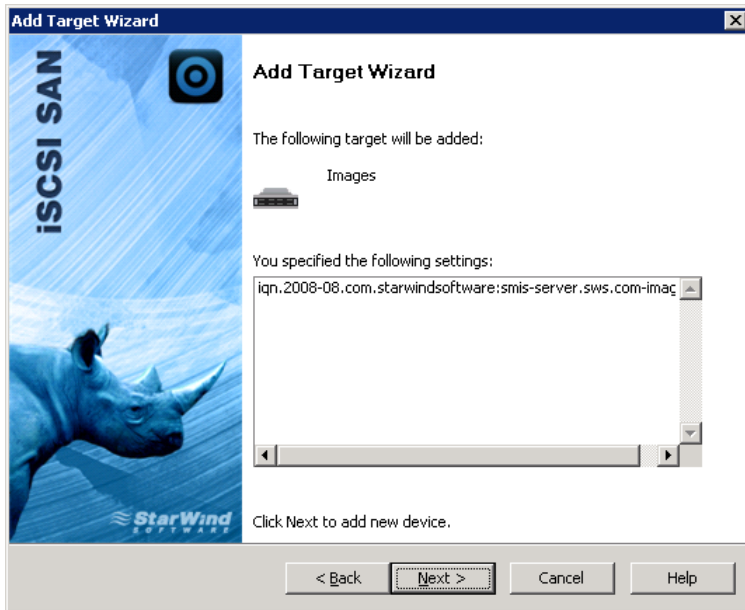
5. To add a target, perform one of the following actions:
 - Select **Add Target** from the Targets menu.
 - Select **Add Target** from the host’s or target’s shortcut menu (right click a host to open it).

The **Add Target Wizard** appears. Please follow the instructions to complete the creation of a new target.

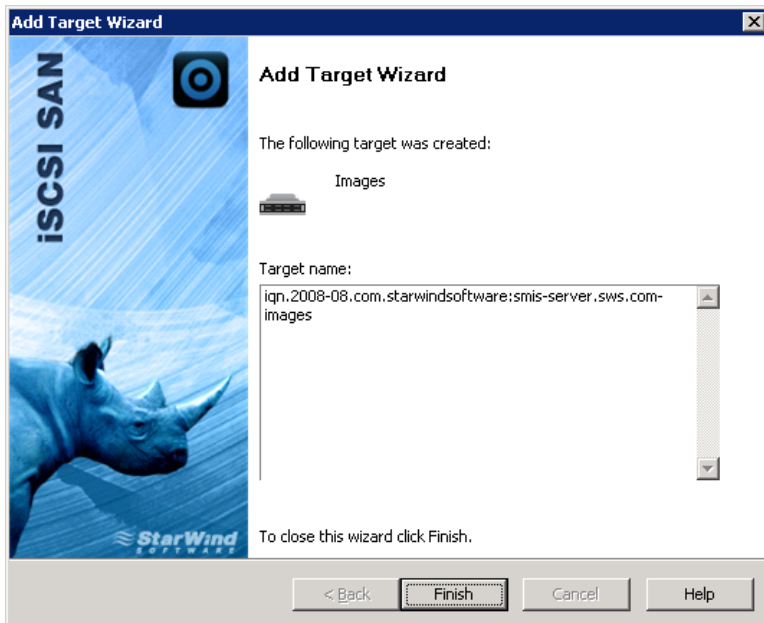


6. Click **Next** to continue.

7. Click **Next** to continue, or click **Back** to return to the previous steps and change the settings.



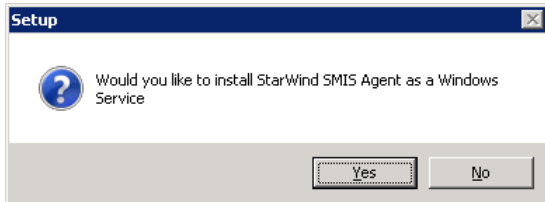
8. Click **Finish** to close the wizard. The successfully added target appears in the **StarWind Console**.



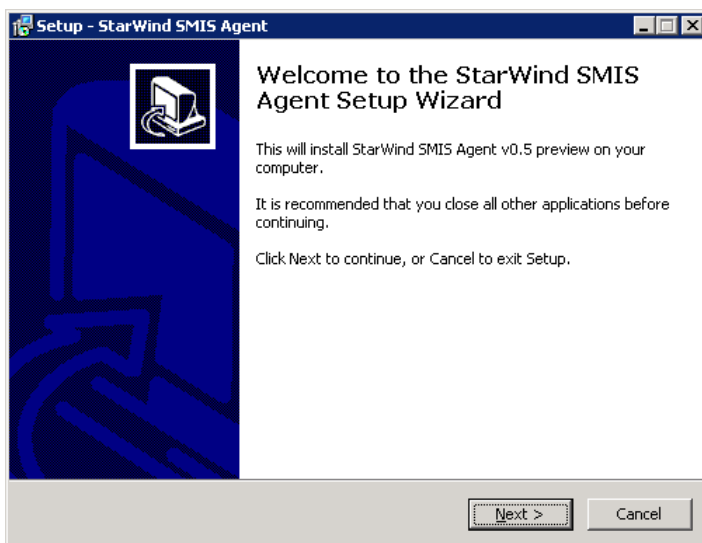
INSTALLING AND CONFIGURING STARWIND SMI-S PROVIDER

To install StarWind SMI-S Agent:

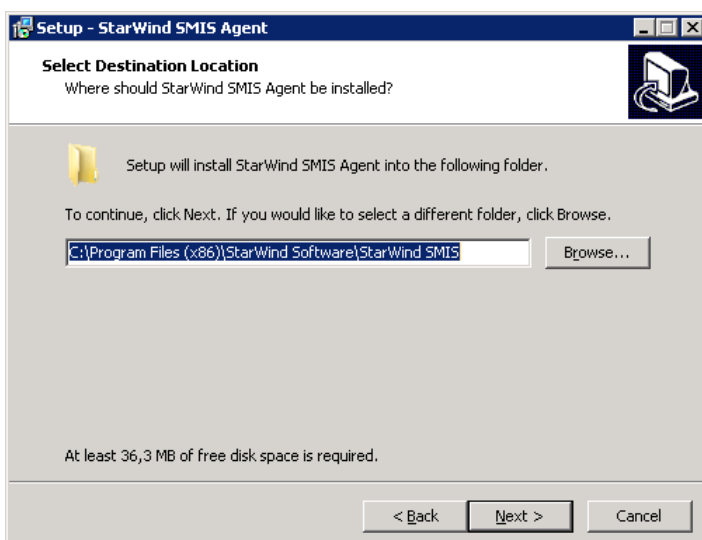
1. Double-click the installer.
2. When prompted to install the SMI-S Agent as a Windows Service, click **Yes**.



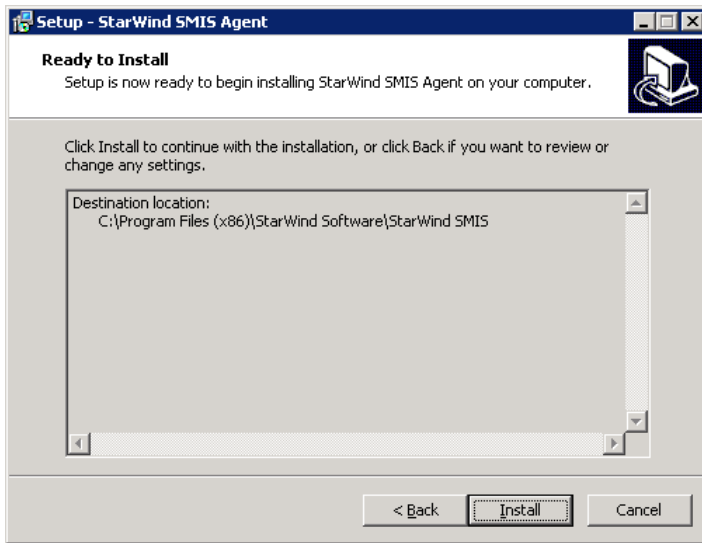
3. **StarWind SMI-S Agent Setup Wizard** appears. Click **Next** to continue.



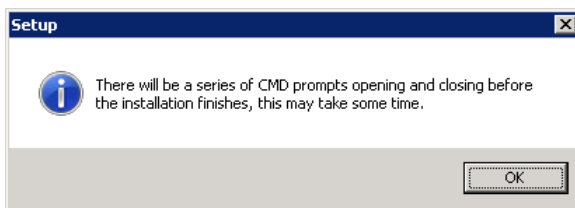
4. Define the folder to install the SMI-S Agent and click **Next**.



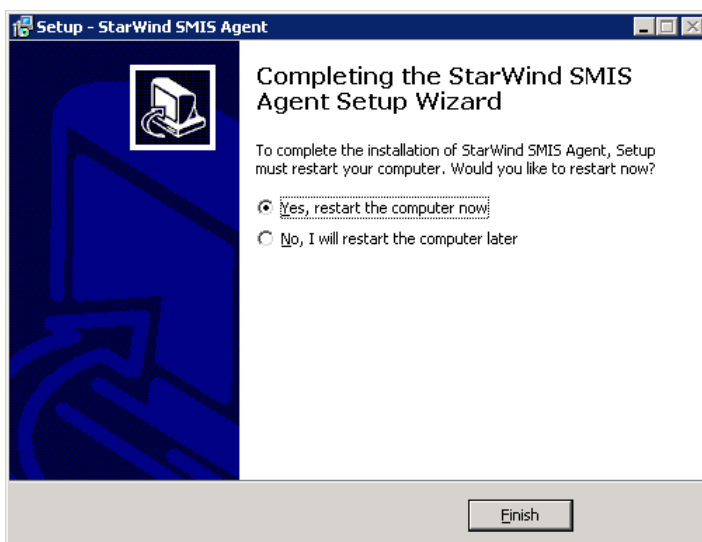
- Click **Install** to begin the installation process, or click **Back** to change any settings.



- During the installation you will be informed about a series of CMD prompts. Click **OK** to continue the process.



- To complete the installation process, restart your computer. You can either select **“Yes, restart the computer now”**, or do it later by yourself.

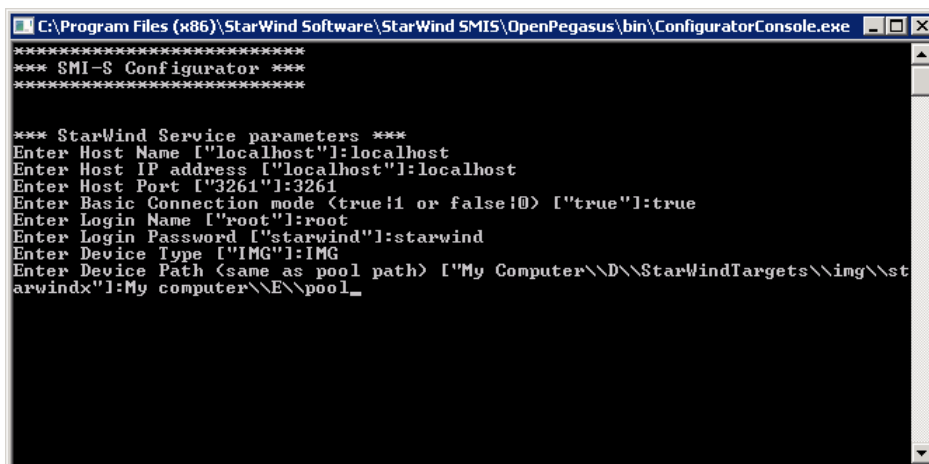


- Click **Finish**.

To configure a previously installed SMI-S Agent:

1. Run the **ConfiguratorConsole.exe** from %INSTALL_PATH%\StarWind SMIS\OpenPegasus\bin. Please follow the instructions to ensure proper performance.

Note: If SMI-S Agent and StarWind iSCSI SAN software were installed on different servers, enter the host IP address and the host name of the StarWind iSCSI SAN server.

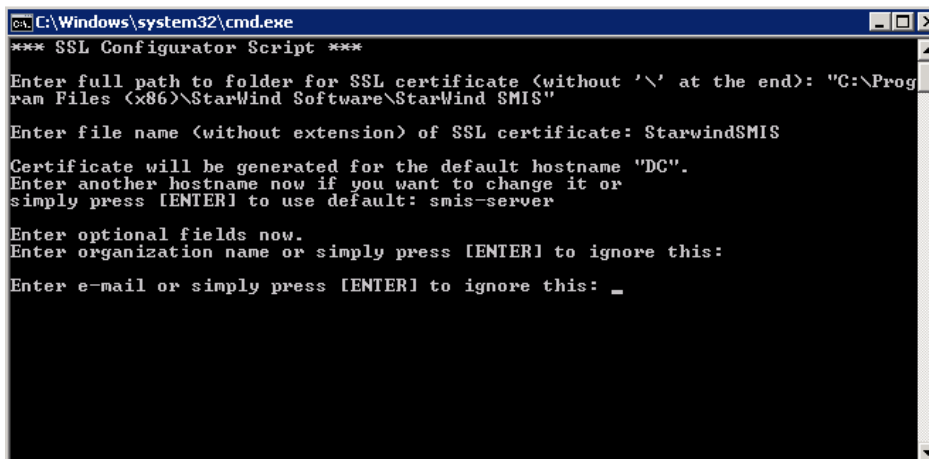


```

C:\Program Files (x86)\StarWind Software\StarWind SMIS\OpenPegasus\bin\ConfiguratorConsole.exe
*****
*** SMI-S Configurator ***
*****

*** StarWind Service parameters ***
Enter Host Name ["localhost"]:localhost
Enter Host IP address ["localhost"]:localhost
Enter Host Port ["3261"]:3261
Enter Basic Connection mode (true|1 or false|0) ["true"]:true
Enter Login Name ["root"]:root
Enter Login Password ["starwind"]:starwind
Enter Device Type ["IMG"]:IMG
Enter Device Path (same as pool path) ["My Computer\D\StarWindTargets\ing\starwindx"]:My computer\E\pool_
  
```

2. Launch the automated script **sslsetup.cmd** from %INSTALL_PATH%\StarWind SMIS\OpenPegasus\bin to generate an SSL certificate. Please follow the instructions to ensure proper performance.



```

C:\Windows\system32\cmd.exe
*** SSL Configurator Script ***
Enter full path to folder for SSL certificate (without '\' at the end): "C:\Program Files (x86)\StarWind Software\StarWind SMIS"
Enter file name (without extension) of SSL certificate: StarwindSMIS
Certificate will be generated for the default hostname "DC".
Enter another hostname now if you want to change it or simply press [ENTER] to use default: smis-server
Enter optional fields now.
Enter organization name or simply press [ENTER] to ignore this:
Enter e-mail or simply press [ENTER] to ignore this: _
  
```

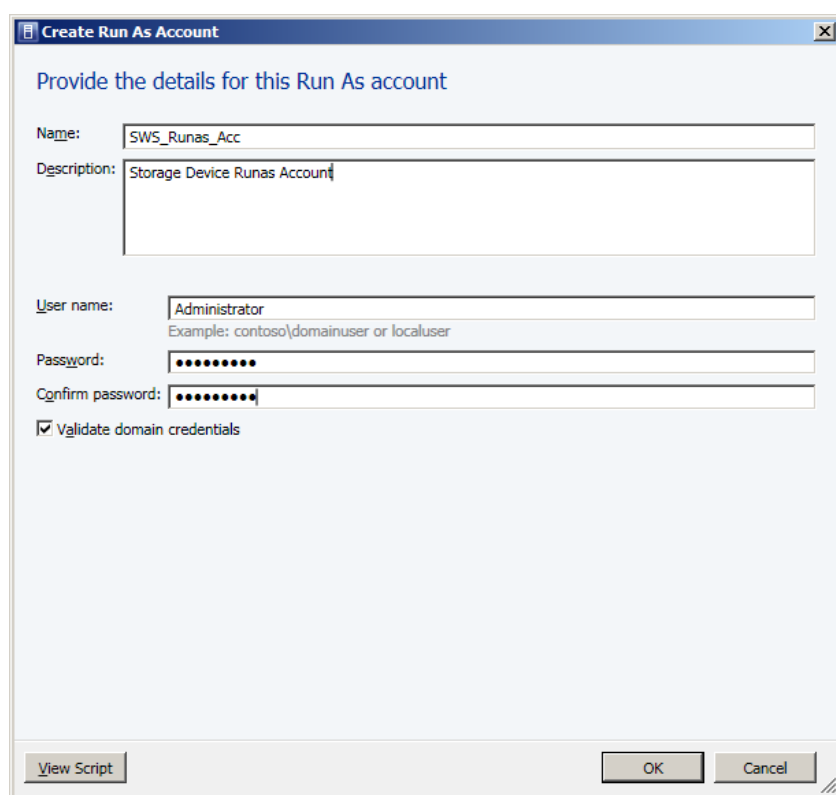
3. To complete the configuration process, restart your computer.

CONFIGURING SCVMM 2012

Prior to starting the discovery process, you should setup a **Run As Account** that is used to connect to the SMI-S Provider.

To configure a Run As Account:

1. Launch the **VMM Console**.
2. Navigate to **Settings** in the bottom left pane of the **VMM Console**.
3. At the top of the **VMM Console** under of the **Home** tab, expand **Create Run As Account**.
4. In the **Create Run As Account** wizard, enter **Name** (e.g.: Storage Account).
5. Enter a description (optionally).
6. Specify the account with domain administrator permissions in the **User name** field.
7. Enter password and confirm it.



Provide the details for this Run As account

Name: SWS_Runas_Acc

Description: Storage Device Runas Account

User name: Administrator
Example: contoso\domainuser or localuser

Password:

Confirm password:

Validate domain credentials

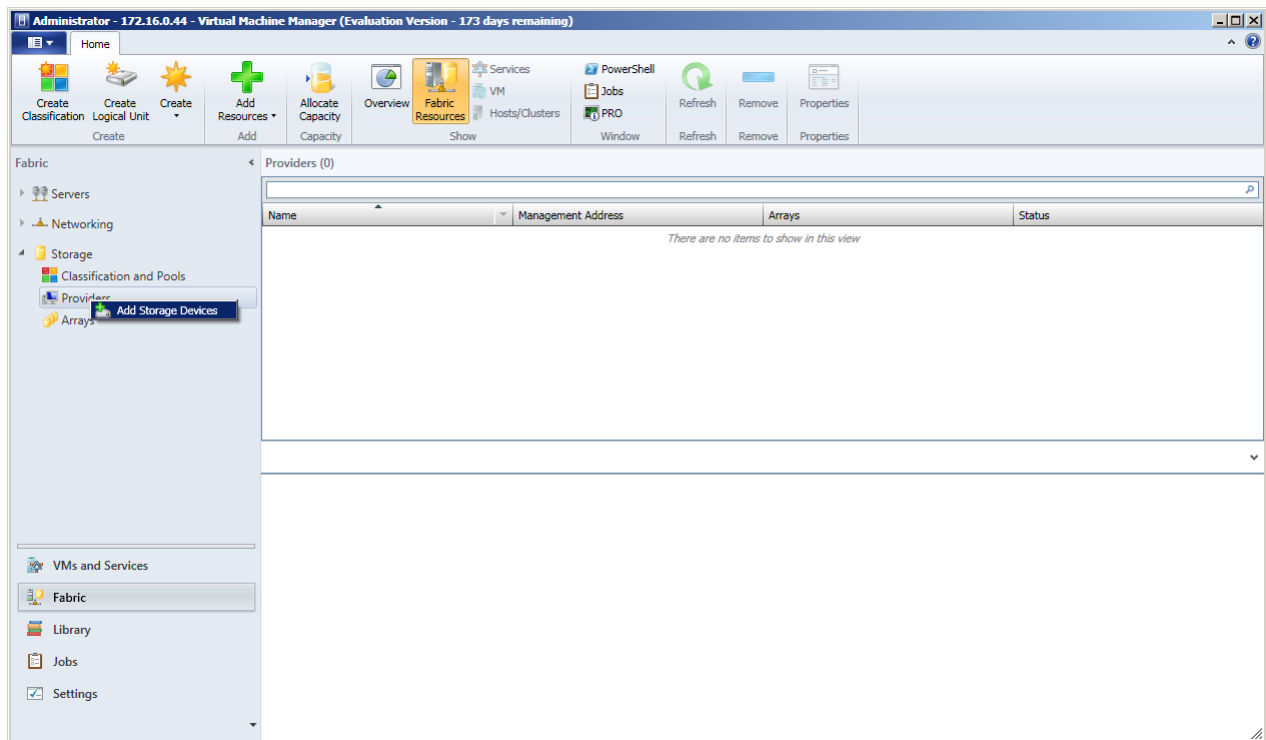
View Script OK Cancel

8. Click **OK** to save credentials. They will be used when adding a storage device.

To discover and classify storage:

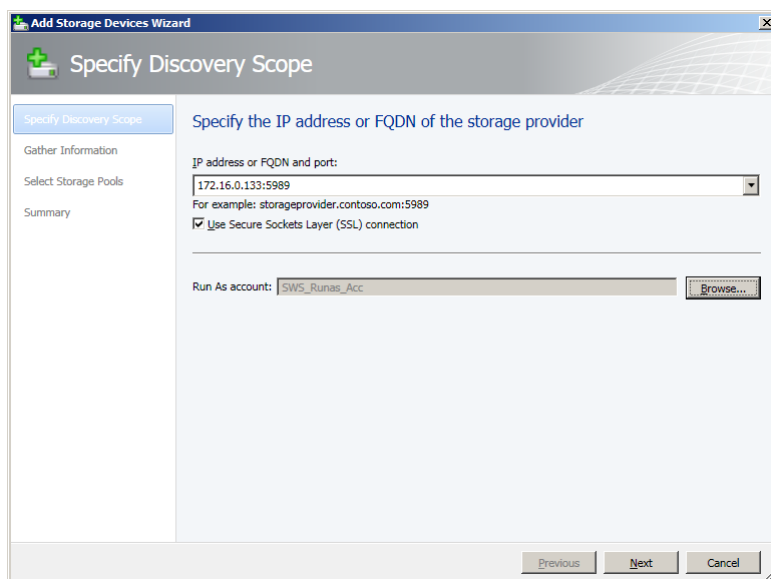
1. Launch the **VMM Console**.
2. Select **Fabric** in the bottom left pane of the **VMM Console**.

3. In the **VMM Console**, right-click **Providers** (or **Arrays**) and select **Add Storage Devices**. Otherwise, at the top of the **VMM Console** under the **Home** tab, expand **Add Resources** and select **Storage Devices**. The **Add Storage Devices Wizard** appears.

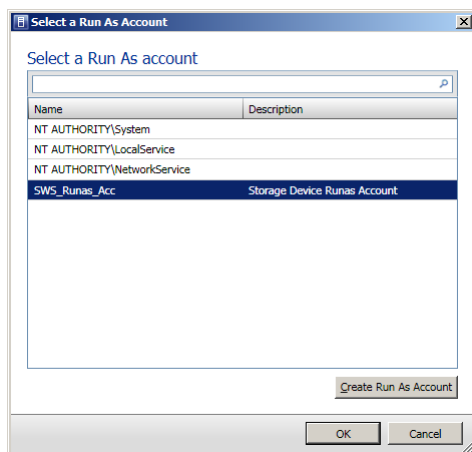


4. In the **Specify Discovery Scope** section of the **Add Storage Devices Wizard**, enter the **IP Address** or **FQDN** and **port**.

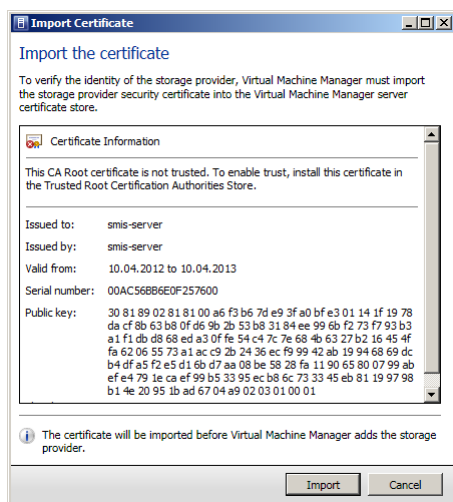
Note: If you use SSL connection, select the **Use Secure Sockets Layer (SSL) connection** checkbox and enter the port **5989**. Otherwise, do not select the checkbox and use the port **5988**.



- Click **Browse** to start the **Run As** dialog and select a previously created account or create a new one.



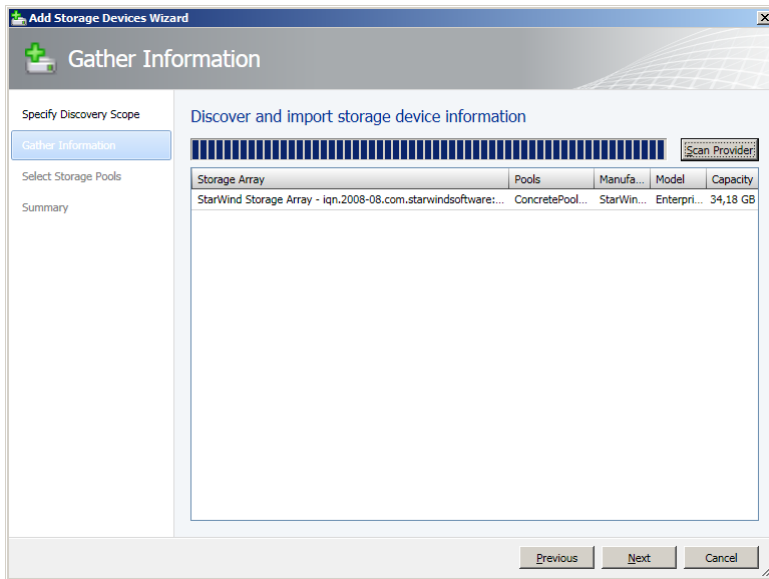
- Click **OK**.
- Click **Next** to continue.
- During the discovery process you will be prompted to import the certificate. Click **Import** to continue.



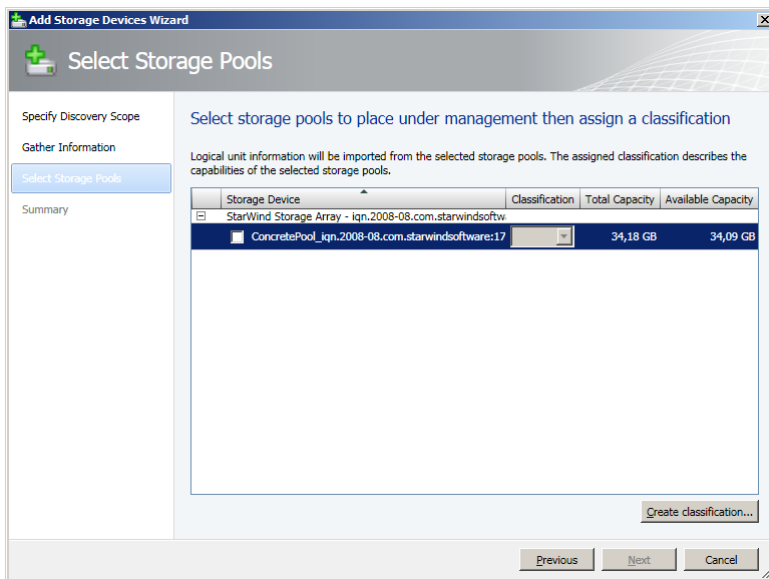
Note: If you receive the error messages "SSL certificate common name is invalid" or "Certificate Authority is not recognized", disable CN verification for the storage provider certificate in the registry. For further details, please refer to the following Microsoft TechNet article:

<http://technet.microsoft.com/en-us/library/gg610563.aspx>

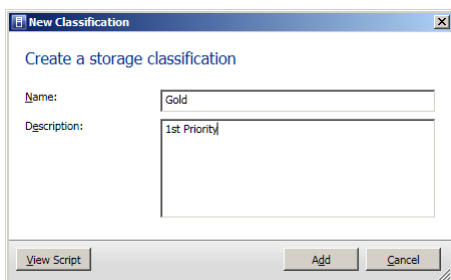
9. Check the StarWind Storage Array details at the end of discovery process. Click **Next** to continue.



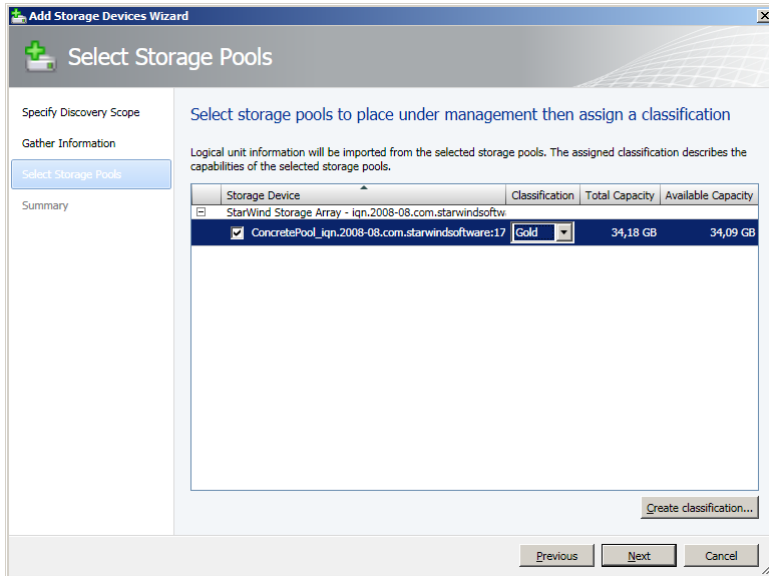
10. You need to classify the storage pools to make them manageable. Click **Create classification**.



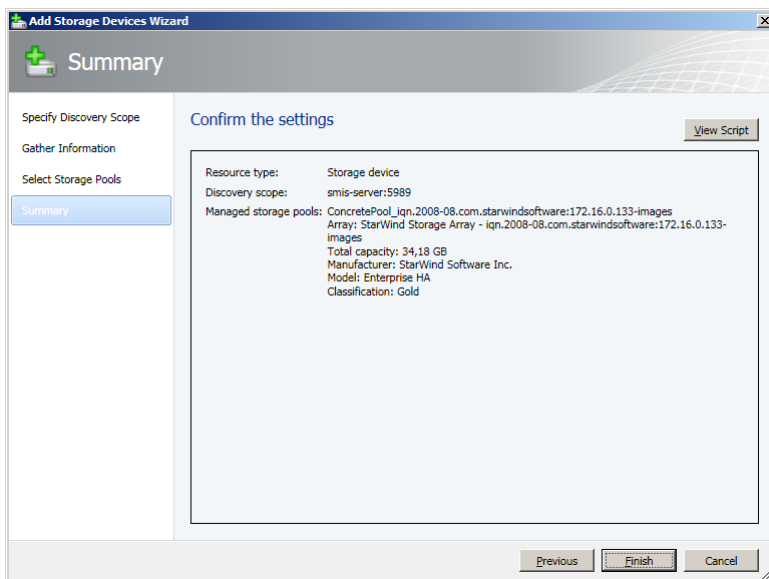
11. In the **New Classification** dialog box, enter a name and description and click **Add**.



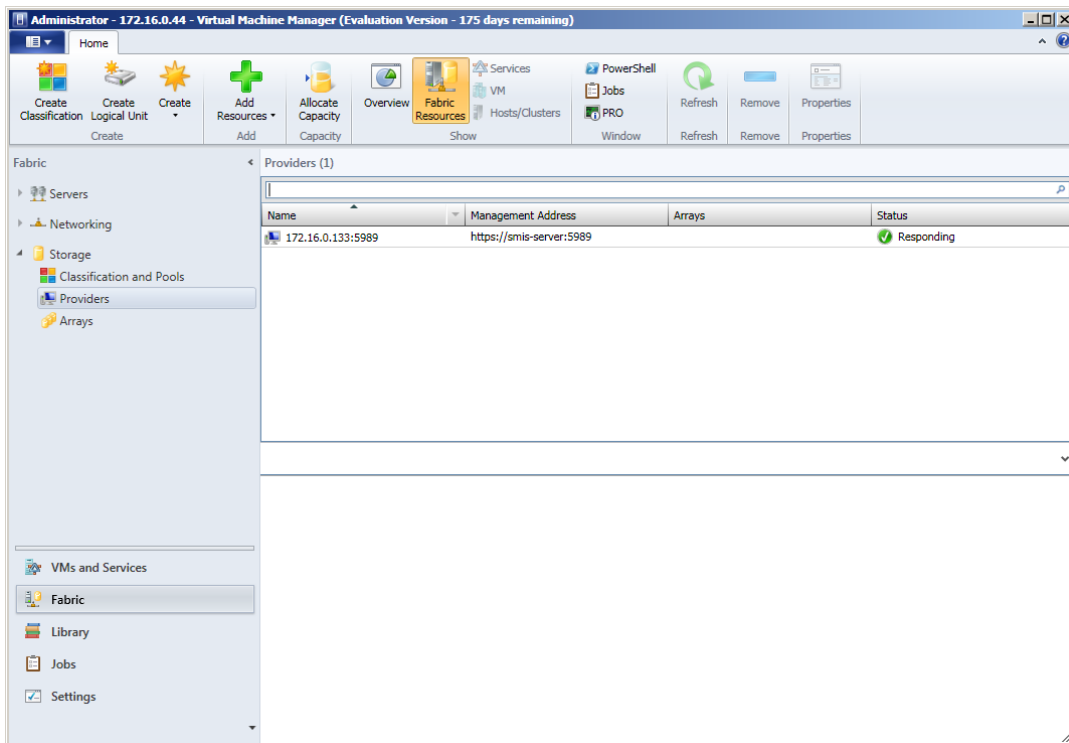
12. Once classifications are created and assigned, ensure that all storage pools are selected and click **Next**.



13. In the **Summary** section, confirm the settings and click **Finish**.



14. In the SCVMM **Fabric** workspace, expand **Storage** and select **Providers** to ensure that the newly added StarWind Storage Provider is listed with the **Responding** status.



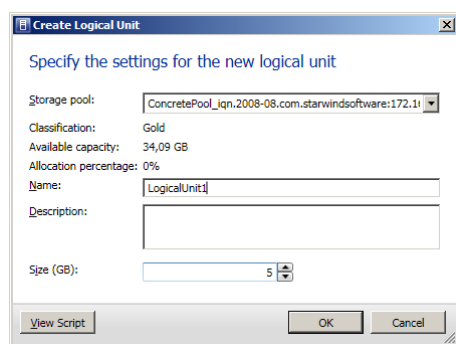
CREATING LOGICAL UNITS THROUGH VMM

To create logical units:

1. Open the **Fabric** workspace.
2. Click **Storage**.
3. Click **Create Logical Unit** in the **Home** tab of the **Create** group. The **Create Logical Unit** dialog box is opened.
4. Select the needed storage pool from the **Storage pool** list.
5. Enter a name for the logical unit in the **Name** box.

Note: Use only alphanumeric characters.

6. Enter a description for the logical unit (optionally).
7. Specify the size of the logical unit, in gigabytes in the **Size (GB)** box.

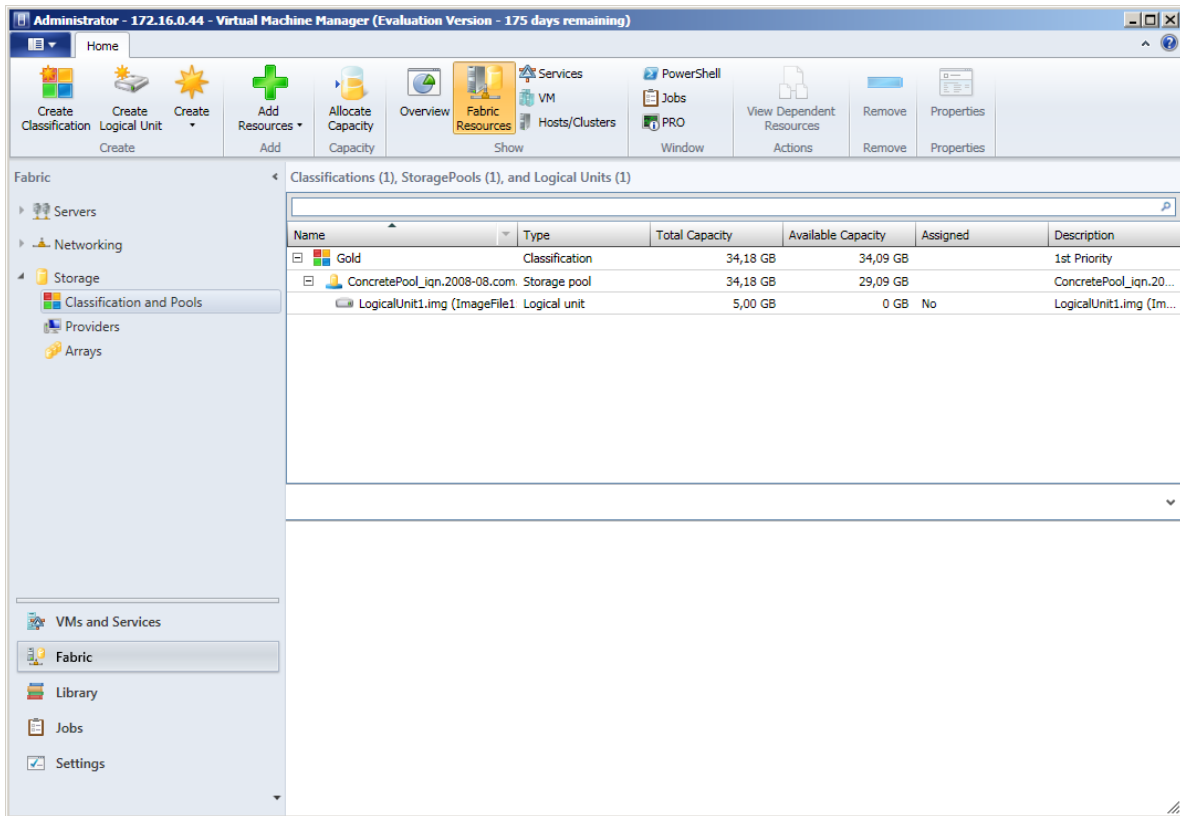


8. Click **OK**.

To verify the creation of the logical unit:

1. Navigate to **Fabric** workspace.
2. Expand **Storage** and click **Classifications and Pools**.
3. In the **Classifications, Storage Pools, and Logical Units** pane, expand the storage classification for the pool where the logical unit is created, and select the storage pool.

4. Check the list of the logical units to ensure that a new logical unit was added.



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