

StarWind iSCSI SAN Software: Using with Citrix XenServer

www.starwindsoftware.com

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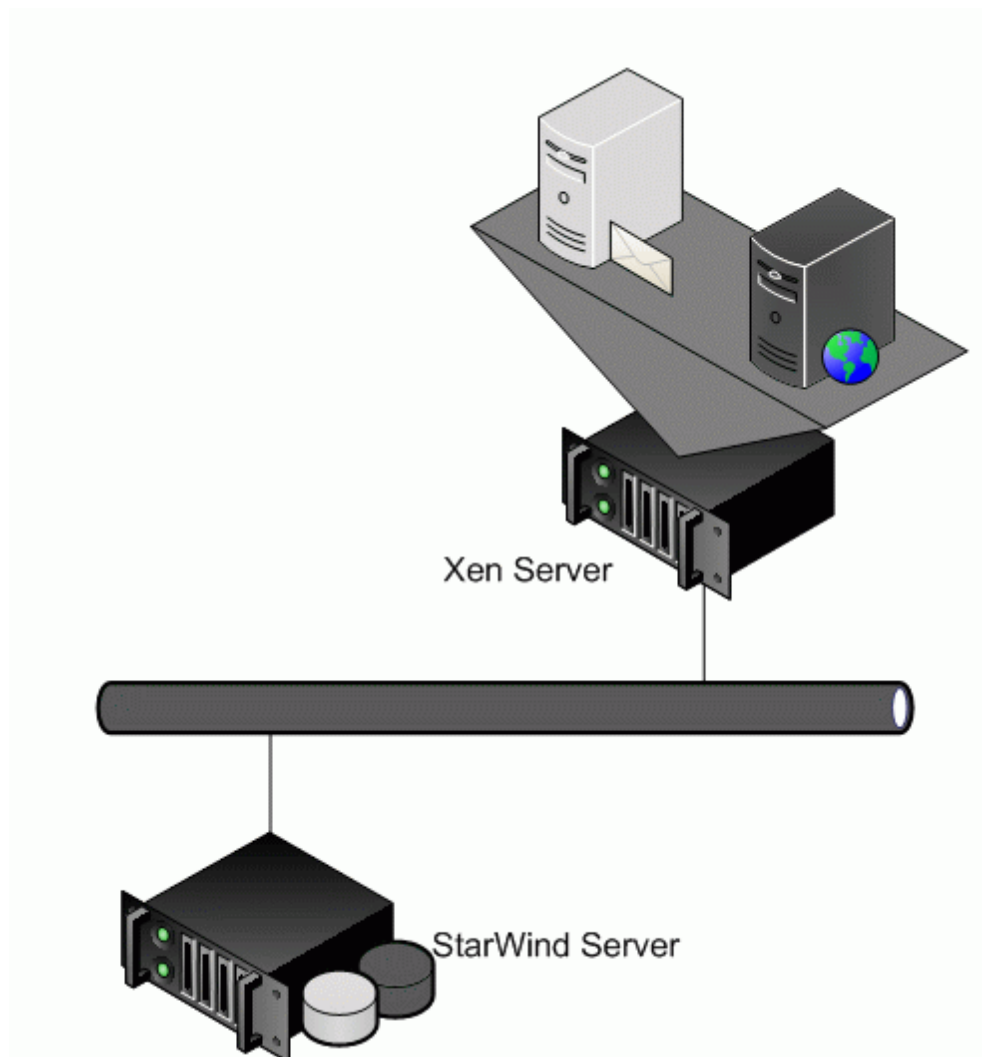
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Guide

Introduction

Note: this manual assumes that you have already installed and configured XenServer.

Virtualized hardware reduces the TCO for many applications. Using StarWind iSCSI Target for Windows will further enhance these virtualized resources.



Note: this manual assumes that you have already installed and configured XenServer.

Configuring StarWind Server

Enabling iSCSI discovery for XenServer

Go to the StarWind installation folder (Default is C:\Program Files\Starwind Software\Starwind)

Open the starwind.cfg file with notepad and find the lines:

```
<!-- Allow listing of interfaces in response to SendTargets=All -->
```

```
    <!--<iScsiDiscoveryListInterfaces value="1"/>-->
```

Uncomment the iScsiDiscoveryListInterfaces setting by removing <!-- & --> from it.

Save changes.

Restart StarWind service: go Start->Run

Run **net stop StarWindService**, then run **net start StarWindService**.

Preparing Storage

Launch the **StarWind** console selecting **Start -> All Programs -> StarWind Software -> StarWind -> StarWind**. After the console is launched its icon appears in the system tray. Double click the icon with the left mouse button or single click it with the right and select **Start Management** pop-up menu item. StarWind management console will appear.

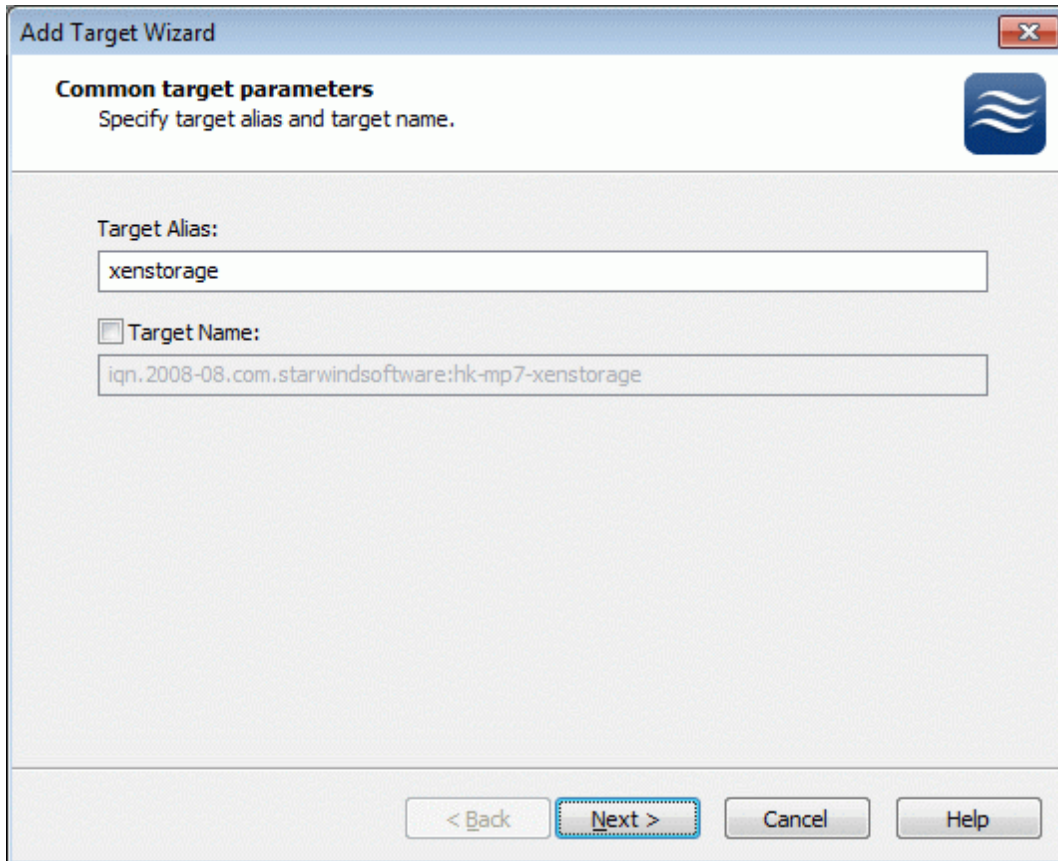
From the **Connections** tree please select the computer you wish to connect to. By default, there is a single item in the tree (localhost) which represents a loopback connection. Double click on the host to connect to it.

Default login and password are: root, starwind. You can always change them later.

After you have successfully connected to the **StarWind Service**, click the button to launch Add Target wizard.



Add Target wizard window will appear. Specify the target name for your virtual disk.

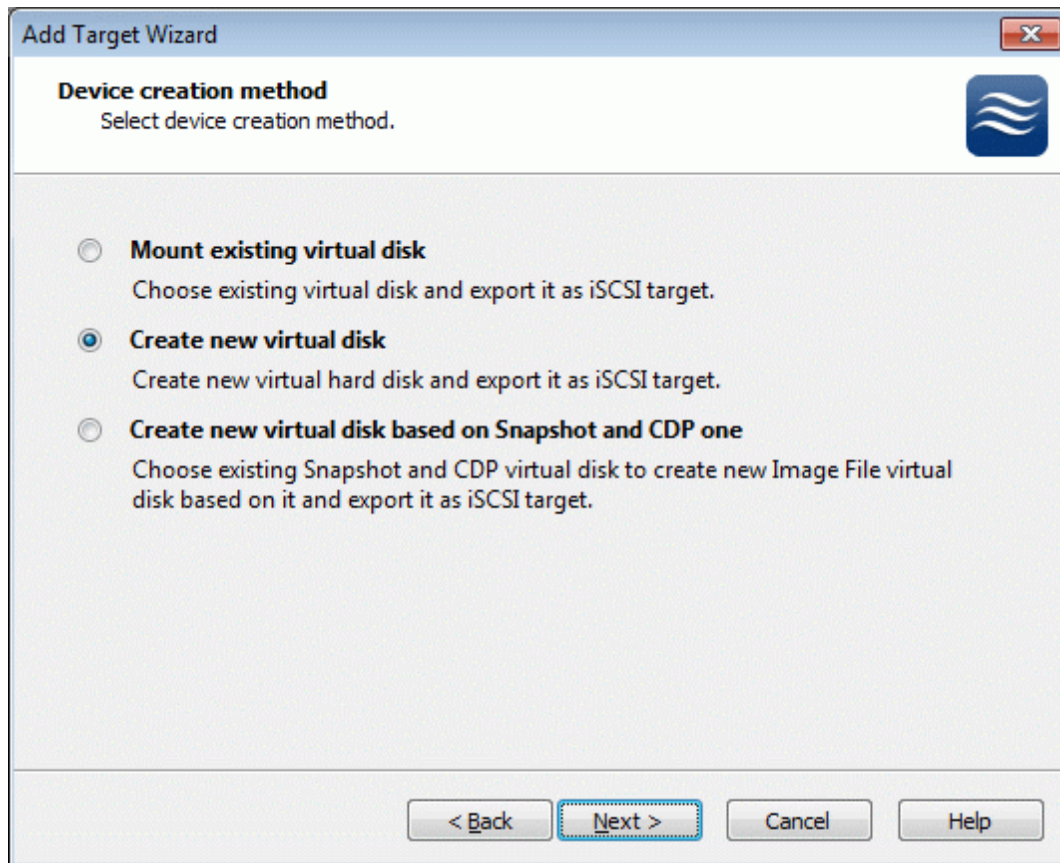


The image shows a Windows-style dialog box titled "Add Target Wizard". It has a standard title bar with a close button (X) in the top right corner. The main content area is divided into two sections. The top section is titled "Common target parameters" and contains the instruction "Specify target alias and target name." To the right of this text is a small blue square icon with three white wavy lines. Below this, there are two input fields. The first is labeled "Target Alias:" and contains the text "xenstorage". The second is preceded by a checkbox and the label "Target Name:", and it contains the text "iqn.2008-08.com.starwindsoftware:hk-mp7-xenstorage". At the bottom of the dialog, there are four buttons: "< Back", "Next >" (which is highlighted with a blue dashed border), "Cancel", and "Help".

Click the **Next** button to continue.

Select Image File device type by going **Hard Disk->Basic Virtual->Image File device**.

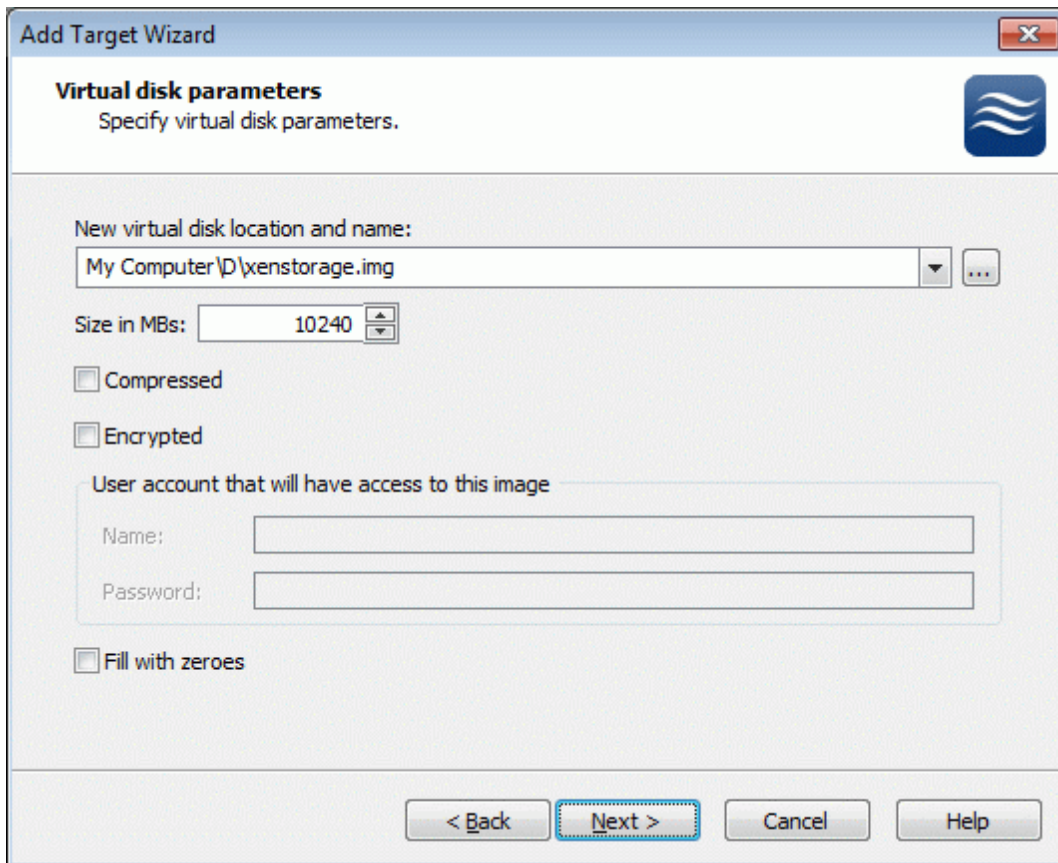
Select **Create new virtual disk** option.



Click the **Next** button to continue.

Specify the path where the disk image file should be created and it's size in Megabytes.

Check any additional parameters of the virtual disk you wish to create. Please refer to the online help to learn about additional parameters (**Compressed**, **Encrypted** and **Fill with zeroes**).

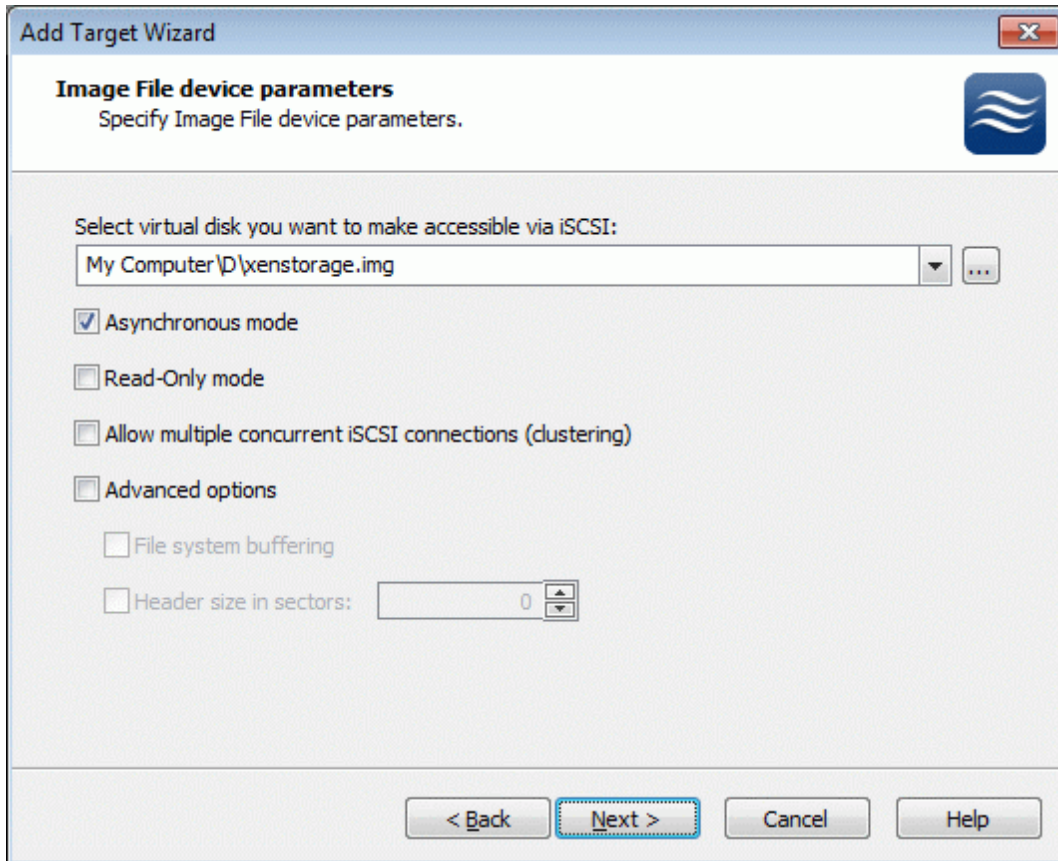


The image shows a Windows-style dialog box titled "Add Target Wizard". It has a standard Windows title bar with a close button (X) in the top right corner. The main content area is titled "Virtual disk parameters" with a subtitle "Specify virtual disk parameters." and a StarWind logo in the top right corner. The dialog contains the following elements:

- A text field labeled "New virtual disk location and name:" containing the path "My Computer\D:\xenstorage.img". To the right of the text field is a dropdown arrow and a browse button (three dots).
- A "Size in MBs:" label followed by a numeric input field containing "10240" and a spinner control.
- Two unchecked checkboxes: "Compressed" and "Encrypted".
- A section titled "User account that will have access to this image" containing two text fields: "Name:" and "Password:".
- An unchecked checkbox labeled "Fill with zeroes".
- At the bottom, there are four buttons: "< Back", "Next >" (which is highlighted with a blue dashed border), "Cancel", and "Help".

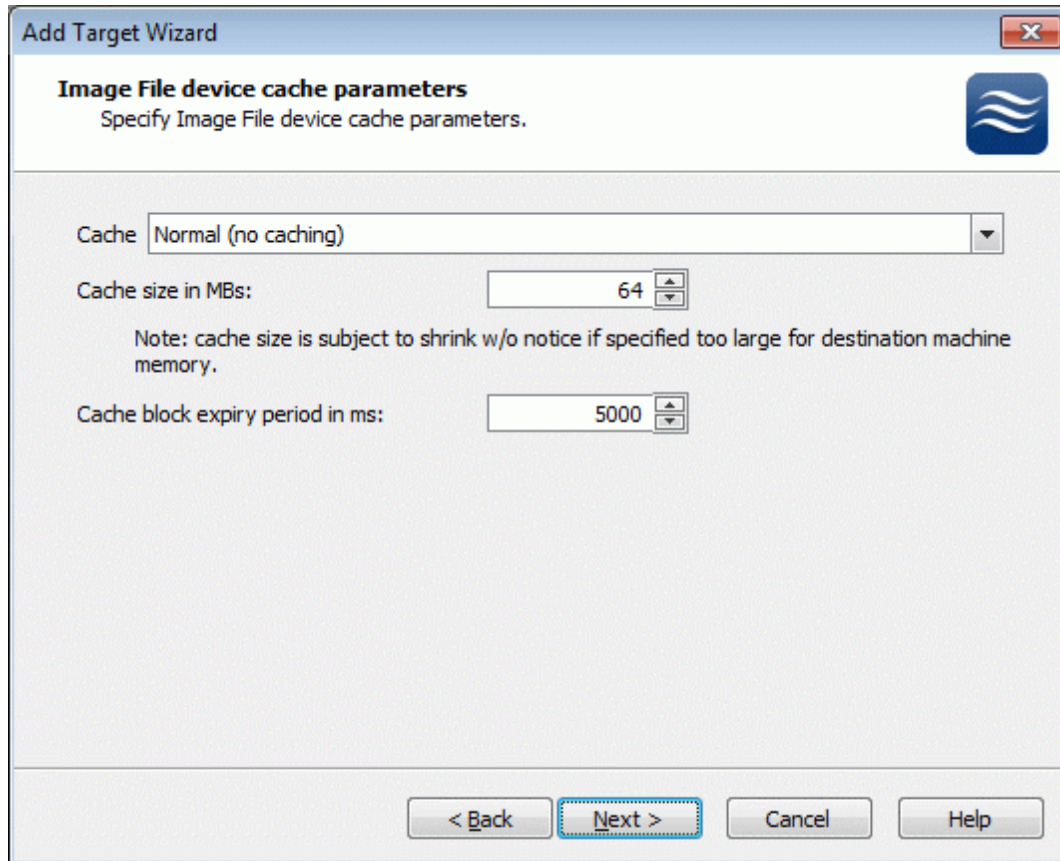
Click the **Next** button to continue.

Set Image File device parameters. To learn more about additional parameters (**Asynchronous mode**, **Allow multiple connections (clustering)**, **Read-only mode** and **Specify advanced options**) please refer to the online help.



Click the **Next** button to continue.

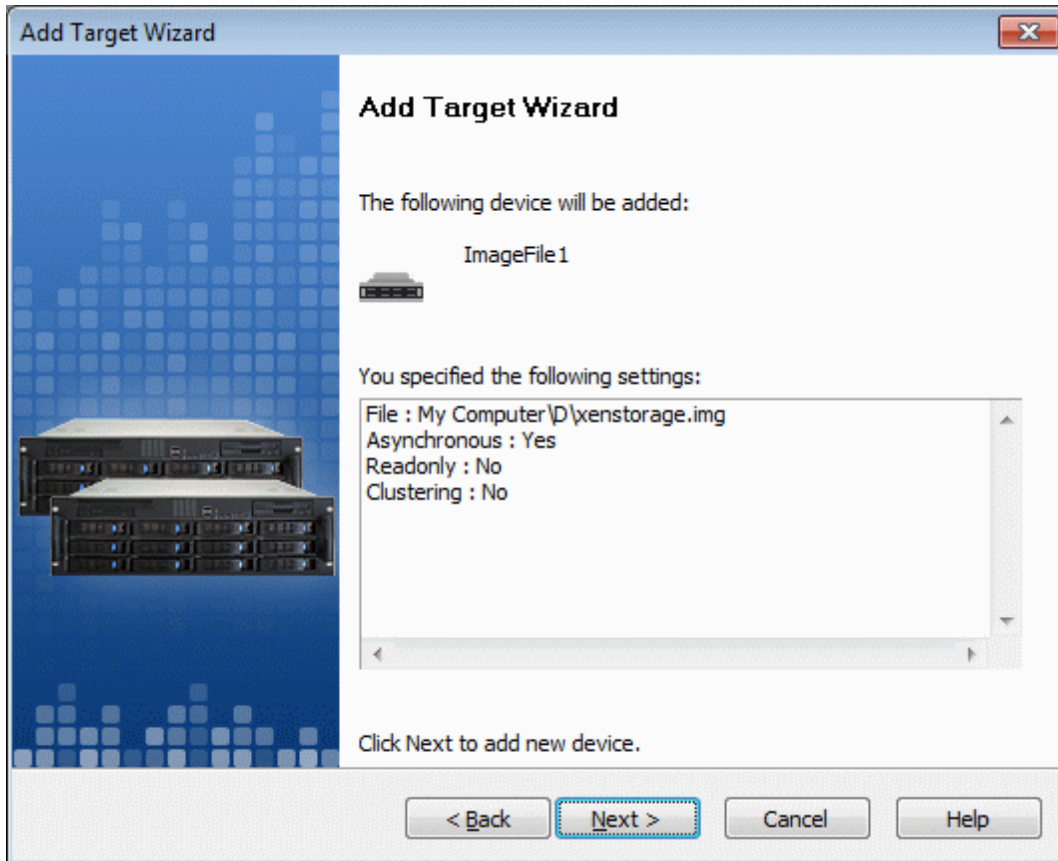
Set caching options for your image file device. Refer to help section to learn about caching options.



The image shows a Windows-style dialog box titled "Add Target Wizard". It has a standard Windows title bar with a close button (X) in the top right corner. The main content area is titled "Image File device cache parameters" and includes the instruction "Specify Image File device cache parameters." To the right of this text is a small blue icon with three white wavy lines. Below the title, there are three settings: "Cache" with a dropdown menu showing "Normal (no caching)", "Cache size in MBs:" with a text box containing "64" and up/down arrows, and "Cache block expiry period in ms:" with a text box containing "5000" and up/down arrows. A note below the cache size field states: "Note: cache size is subject to shrink w/o notice if specified too large for destination machine memory." At the bottom of the dialog, there are four buttons: "< Back", "Next >" (which is highlighted with a blue dashed border), "Cancel", and "Help".

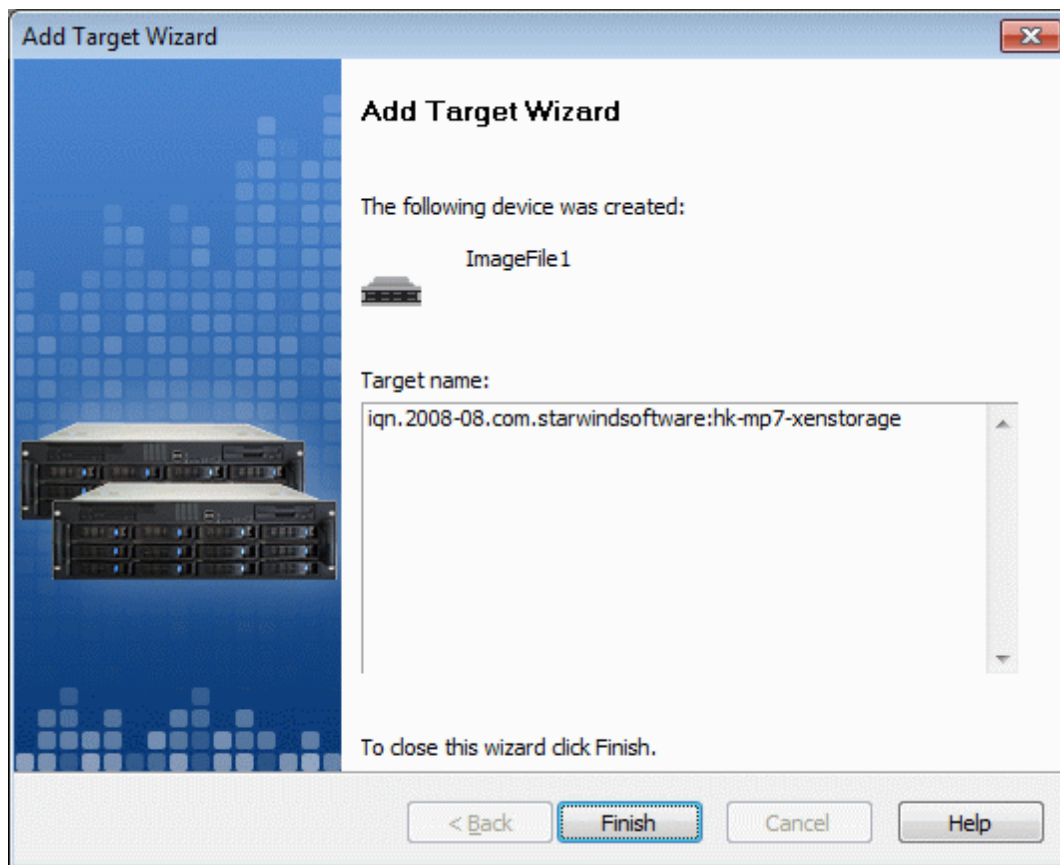
Click the **Next** button to continue.

Check the device parameters you have set are correct.
Click the **Back** button should any changes be required.



Click the **Next** button to continue.

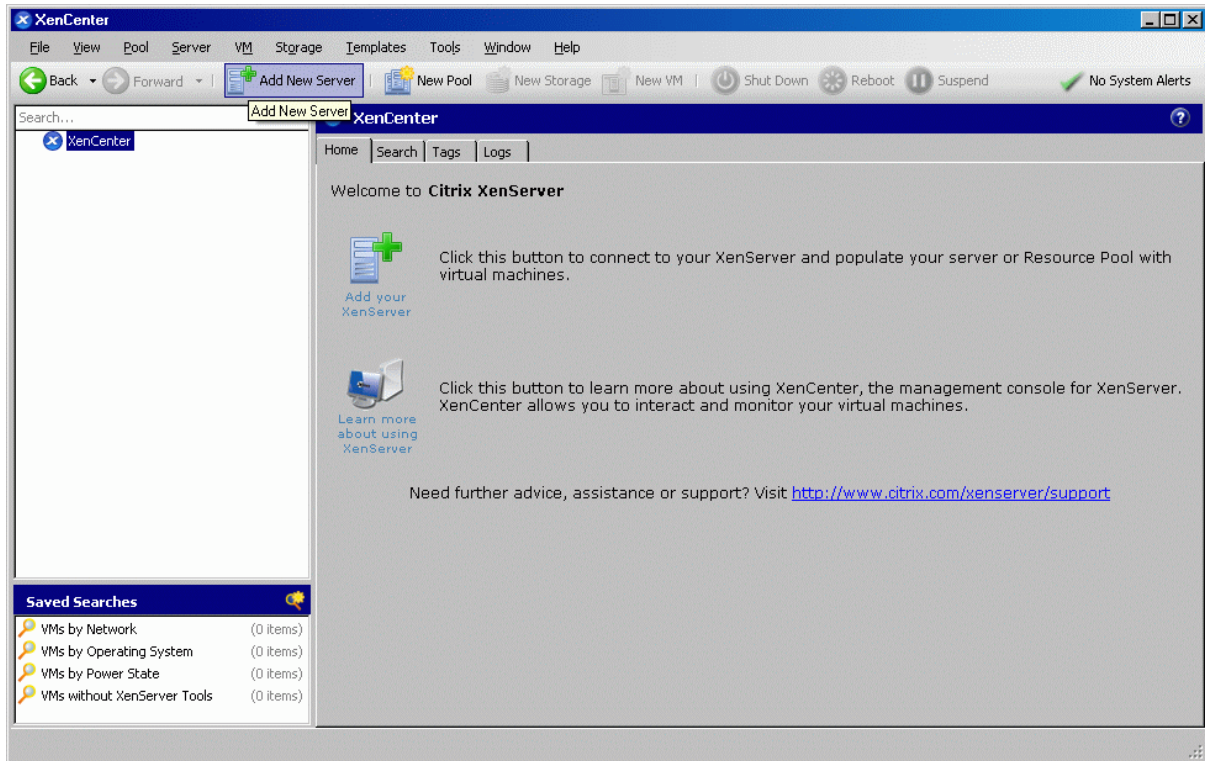
Wizard will inform you that the target has been successfully created.



Click the **Finish** button to close the wizard.

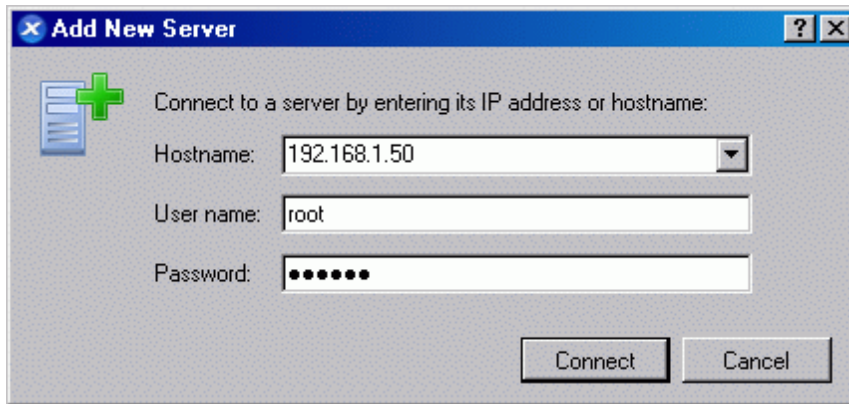
Configure XenCenter

Install XenCenter software from the XenServer installation media. Launch XenCenter.



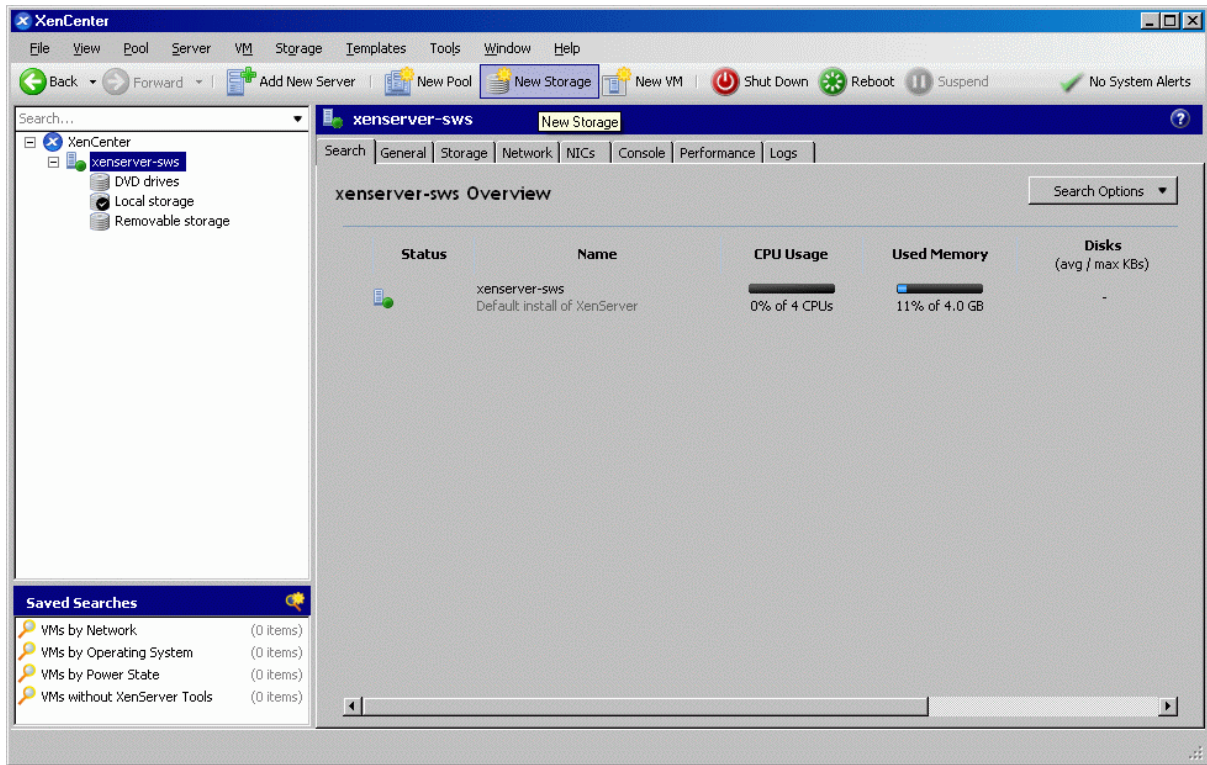
Click **Add New Server** button.

In the opened dialog window type in the IP address of the machine running XenServer, login and password.



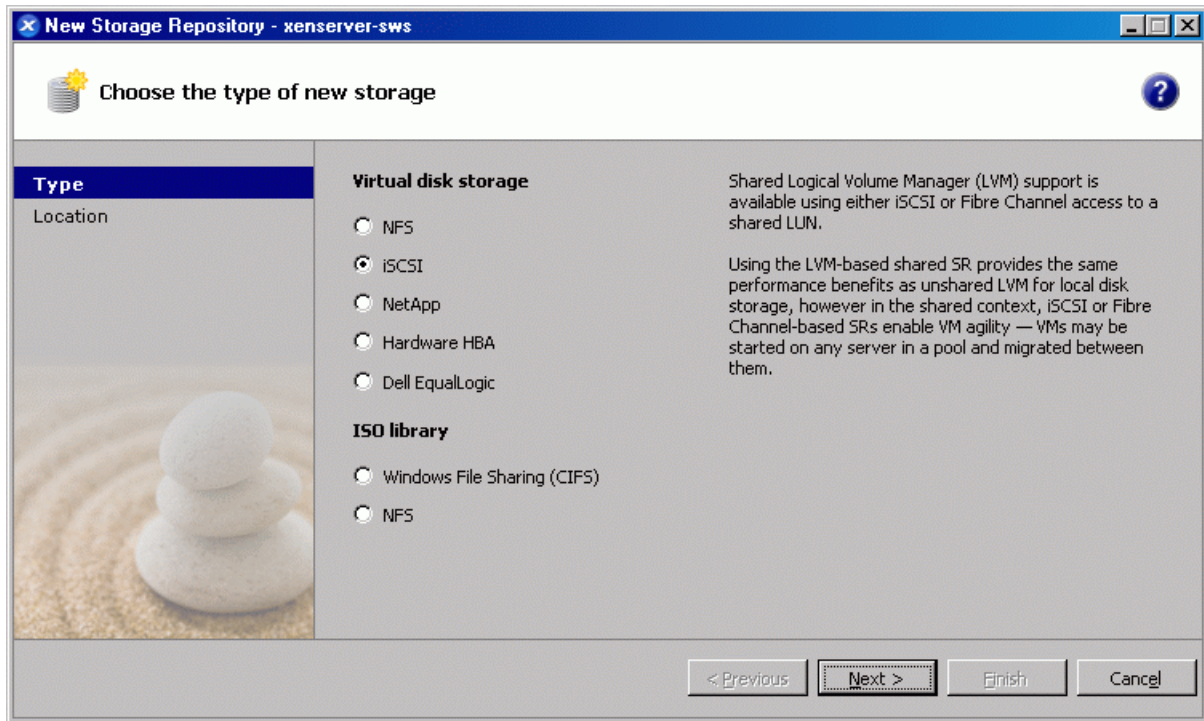
Click **Connect** button.

After connecting your server will appear in the list on the left side of the XenCenter window.



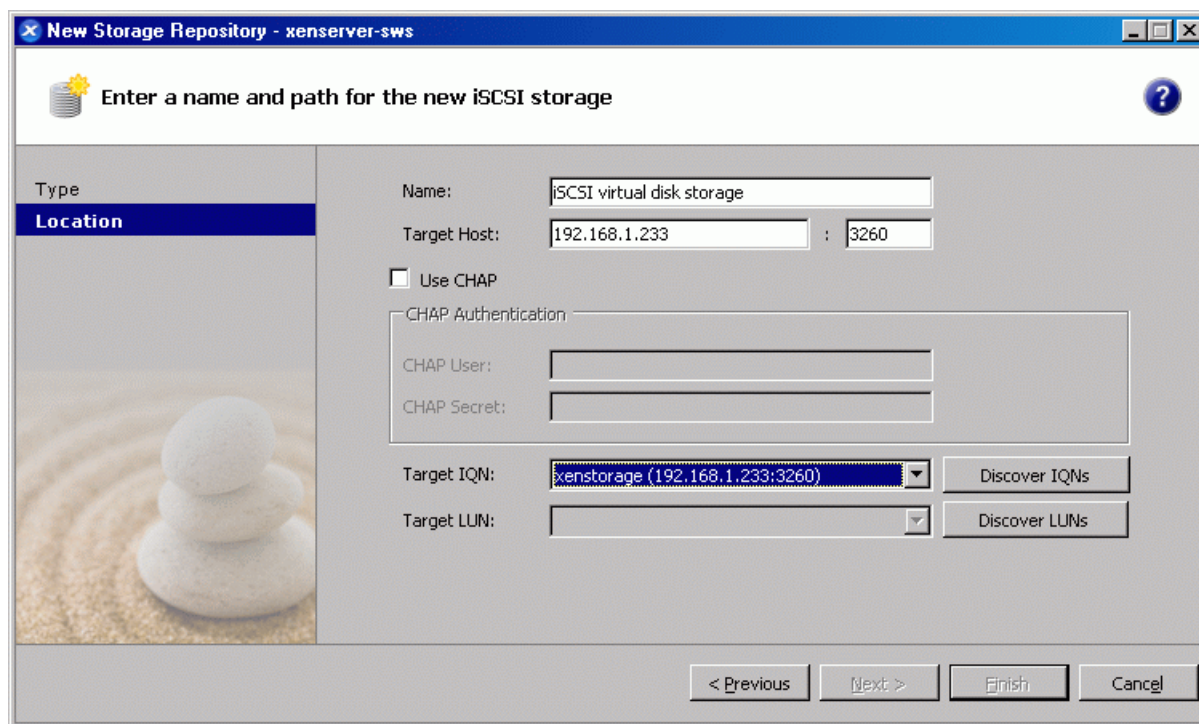
Click the **New Storage** button.

A **New Storage Repository** wizard will appear.



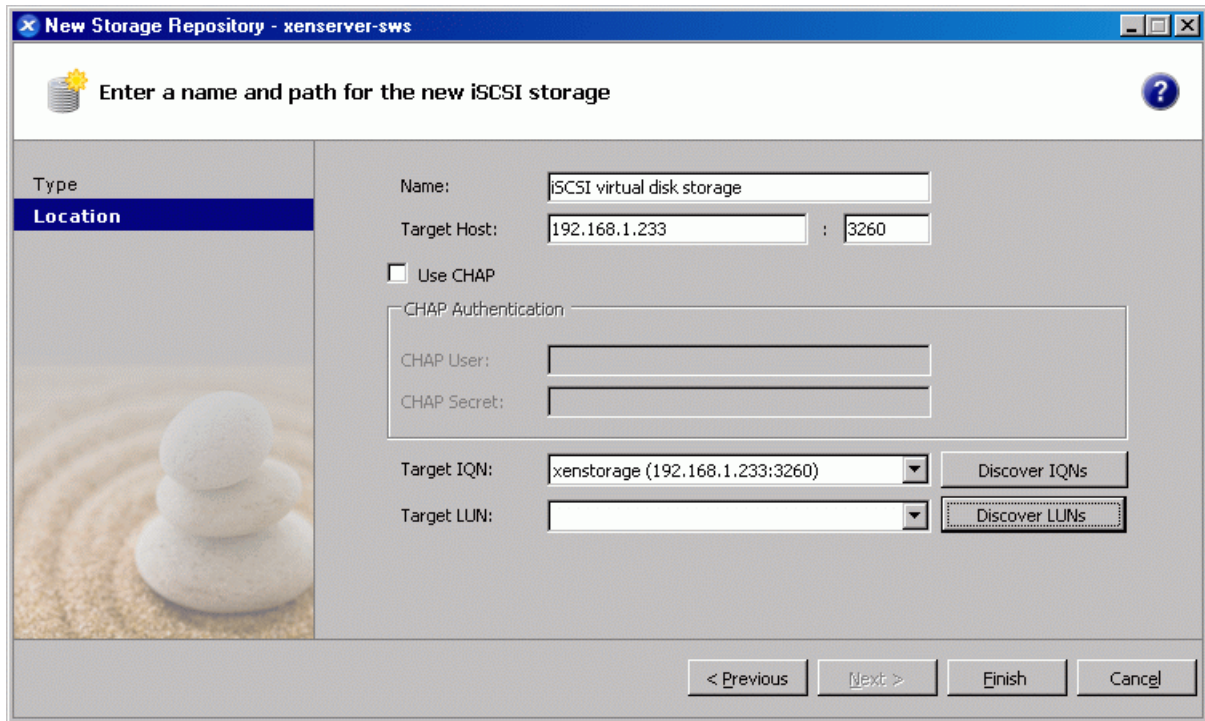
Select **iSCSI** from the device list and click **Next** button.

Now enter the IP address of the machine running StarWind.



Click the **Discover IQNs** button.

After the IQN is successfully discovered the wizard window will look similar to the one shown below.



New Storage Repository - xenserver-sws

Enter a name and path for the new iSCSI storage

Type
Location

Name: iSCSI virtual disk storage

Target Host: 192.168.1.233 : 3260

☐ Use CHAP

CHAP Authentication

CHAP User:

CHAP Secret:

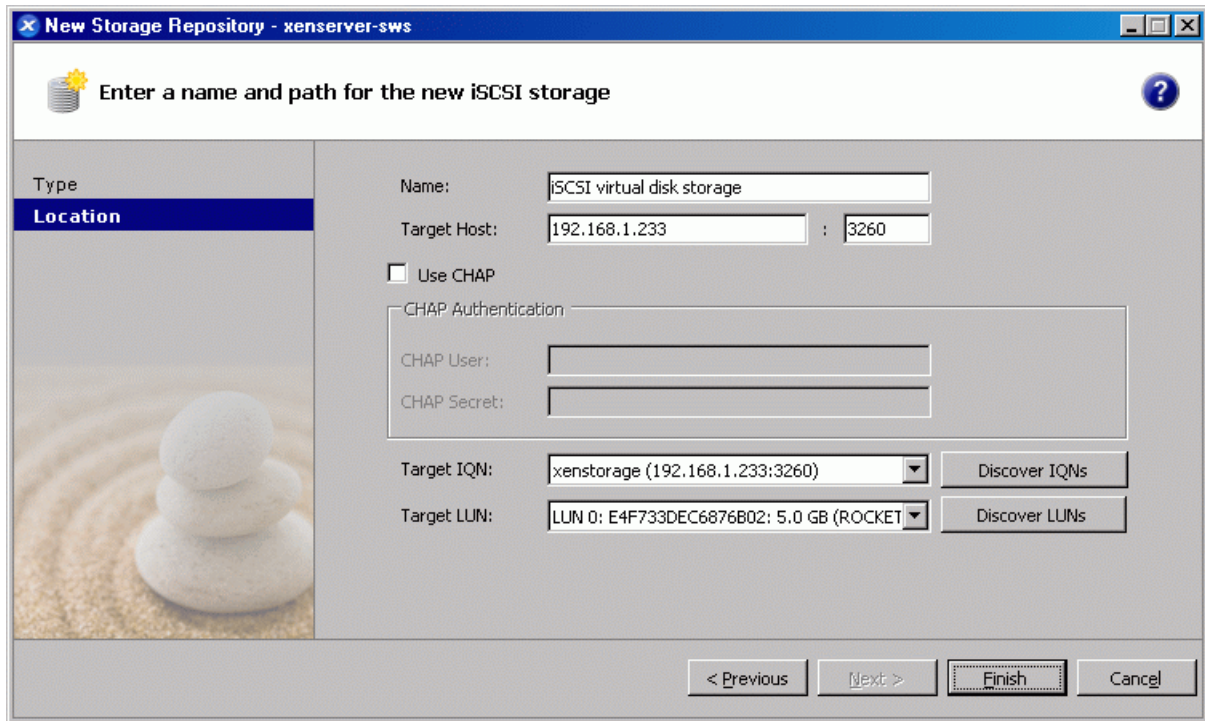
Target IQN: xenstorage (192.168.1.233:3260) Discover IQNs

Target LUN: Discover LUNs

< Previous Next > Finish Cancel

Click **Discover LUNs** button.

Now when the LUN is discovered the window should like the one below.



New Storage Repository - xenserver-sws

Enter a name and path for the new iSCSI storage

Type
Location

Name: iSCSI virtual disk storage

Target Host: 192.168.1.233 : 3260

☐ Use CHAP

CHAP Authentication

CHAP User:

CHAP Secret:

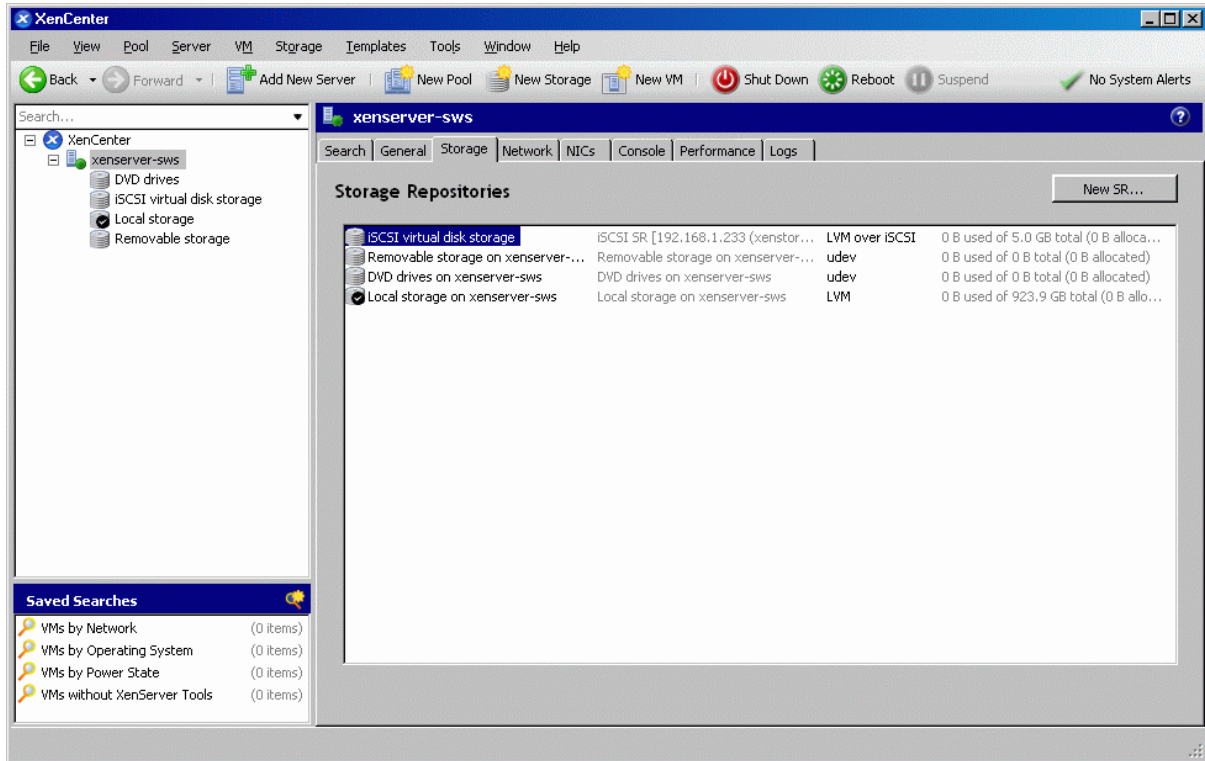
Target IQN: xenstorage (192.168.1.233:3260) Discover IQNs

Target LUN: LUN 0: E4F733DEC6876B02: 5.0 GB (ROCKET) Discover LUNs

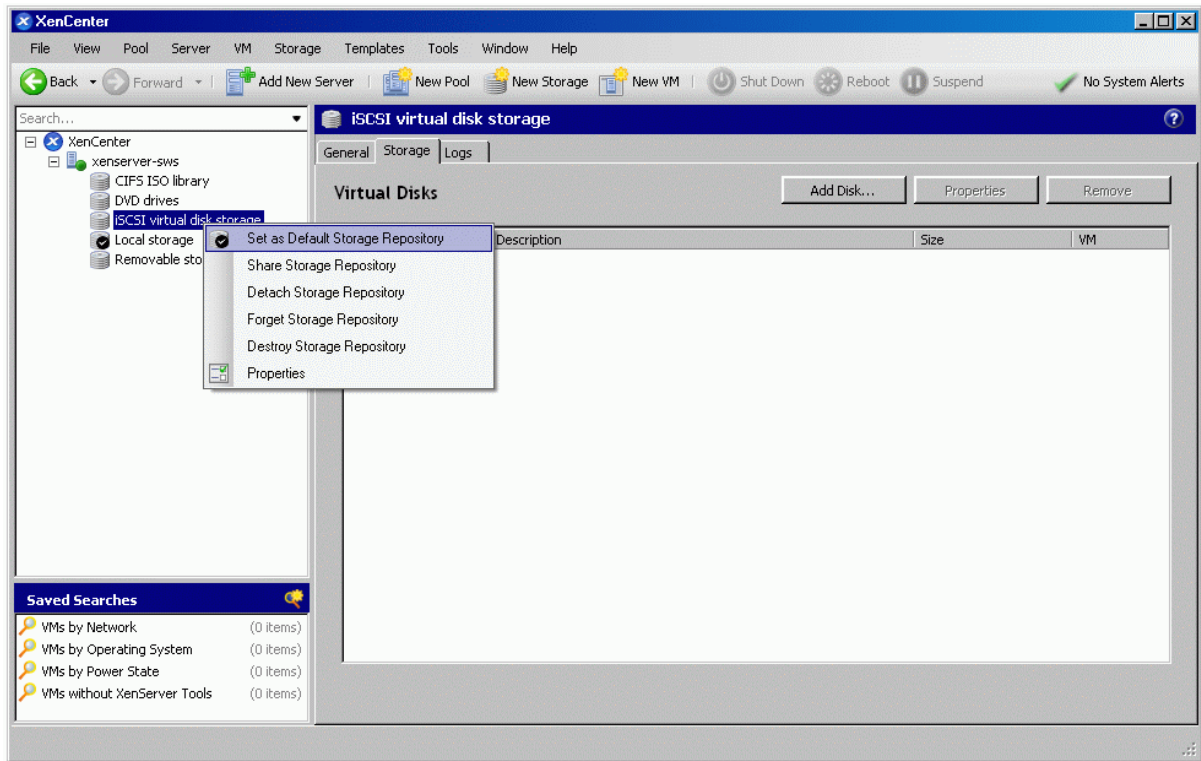
< Previous Next > Finish Cancel

Click **Finish** button. The setup will ask you to format the disk, click **Yes** button.

Now your iSCSI storage device has appeared in the list of available storage.



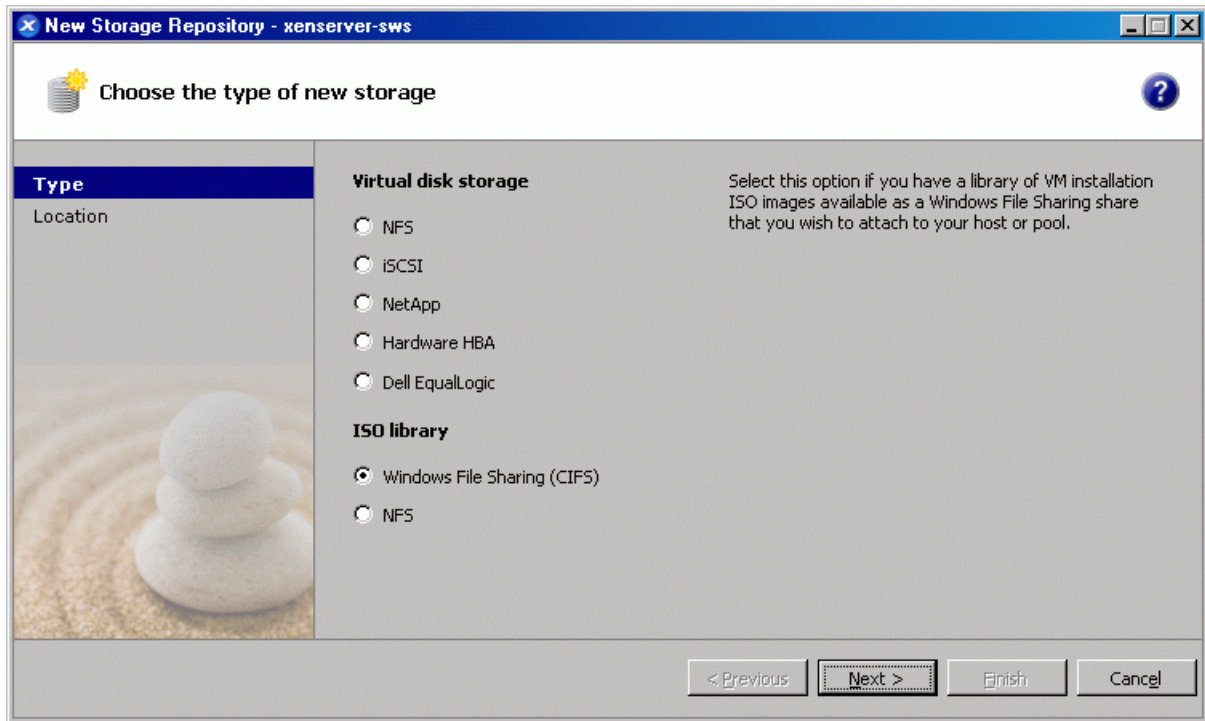
Now right click on the **iSCSI virtual disk storage** menu item in the left part of the XenCenter window.



Select **Set as Default Storage Repository**. Now the virtual machine you create will use iSCSI virtual disk storage as default storage.

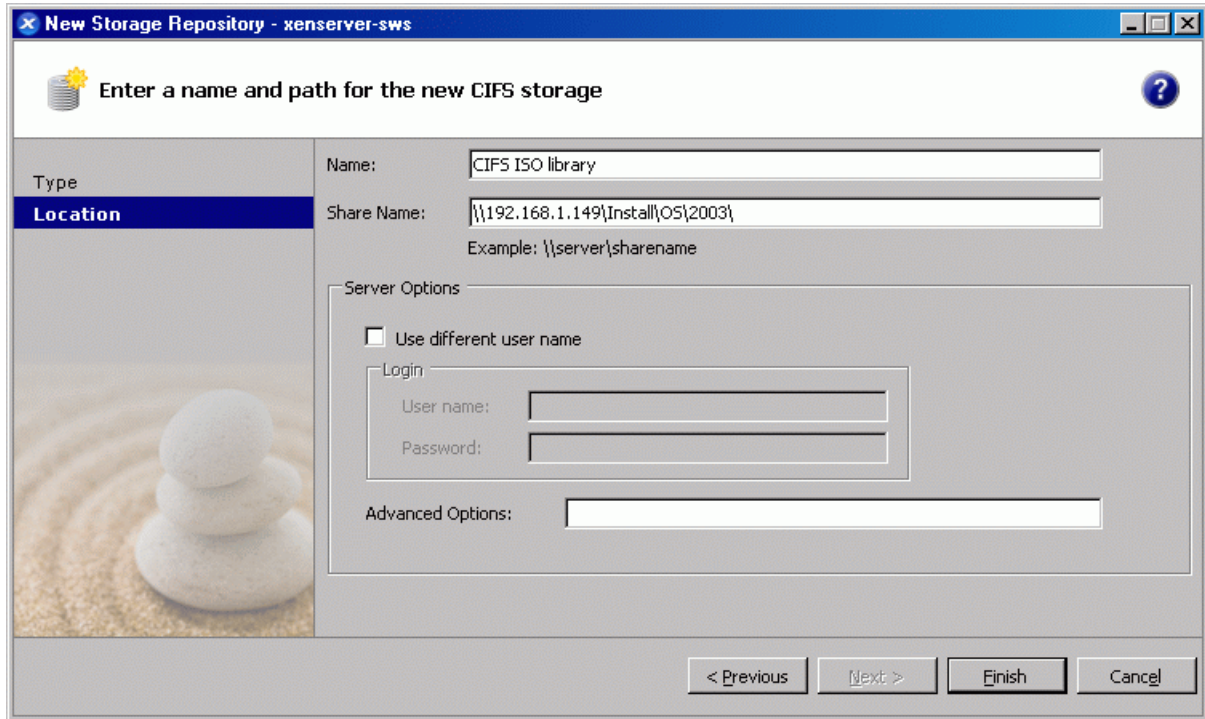
You can optionally add a remote OS installation image. To do so click **Add Storage** button.

A **New Storage Repository** wizard will appear.



Select **Windows File Sharing (CIFS)** and click **Next** button.

Now specify the source folder where the OS install Image is stored.



New Storage Repository - xenserver-sws

Enter a name and path for the new CIFS storage

Type
Location

Name: CIFS ISO library

Share Name: \\192.168.1.149\Install\OS\2003\
Example: \\server\sharename

Server Options

☐ Use different user name

Login

User name:

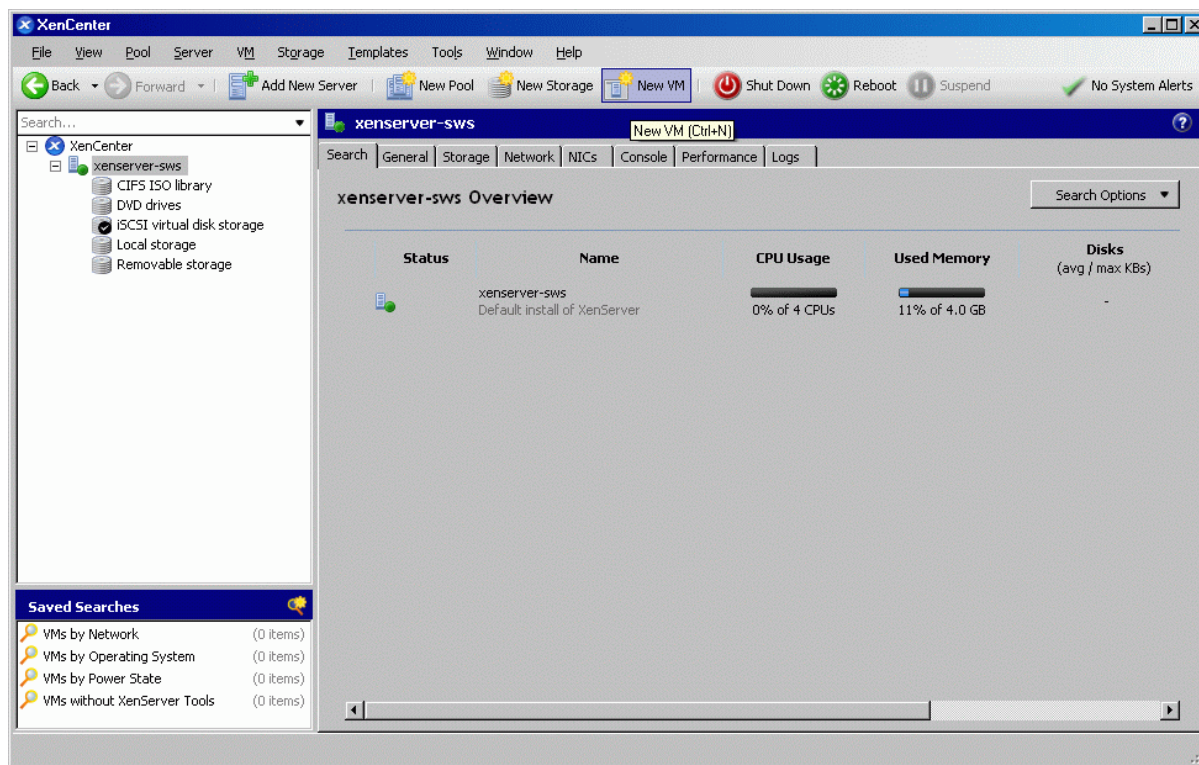
Password:

Advanced Options:

< Previous Next > Finish Cancel

Click the **Finish** button.

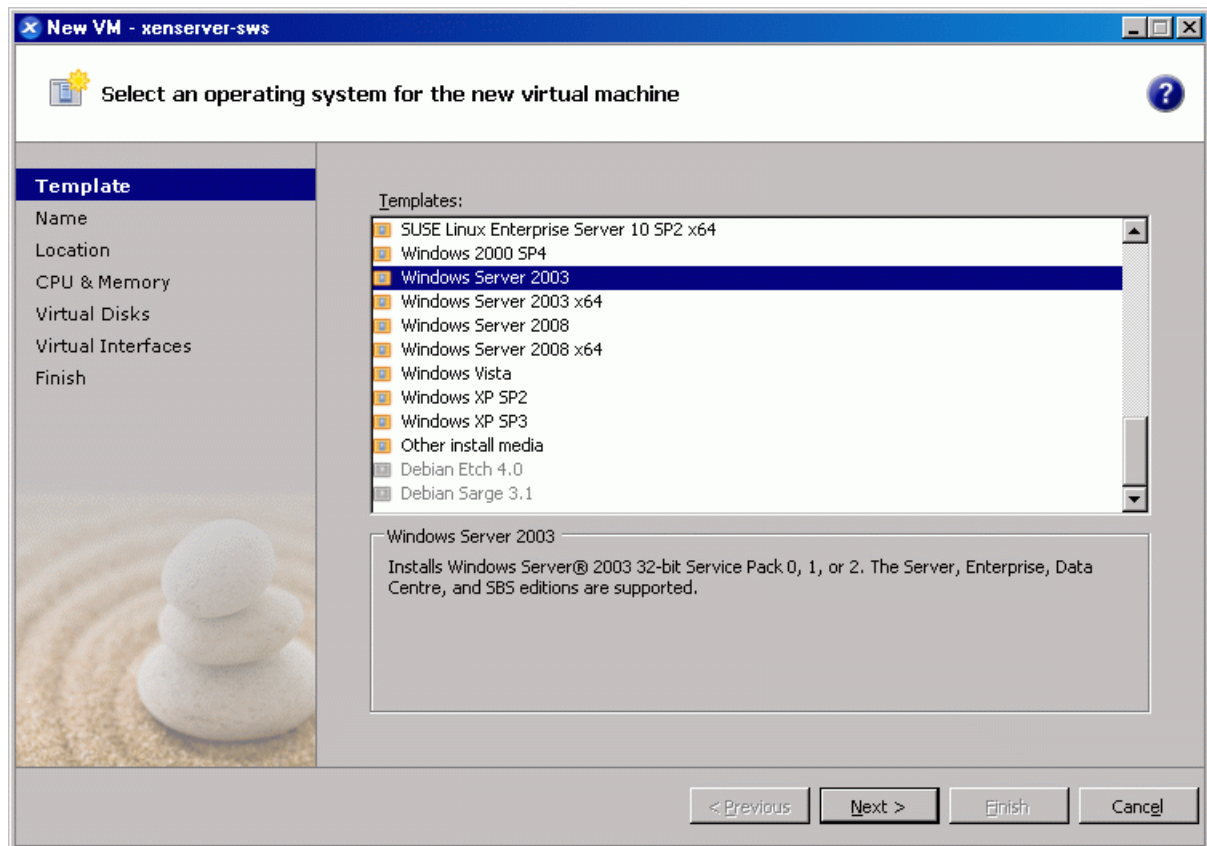
Now we can create a new virtual machine, in the XenCenter window select your server.



Click the **New VM** button.

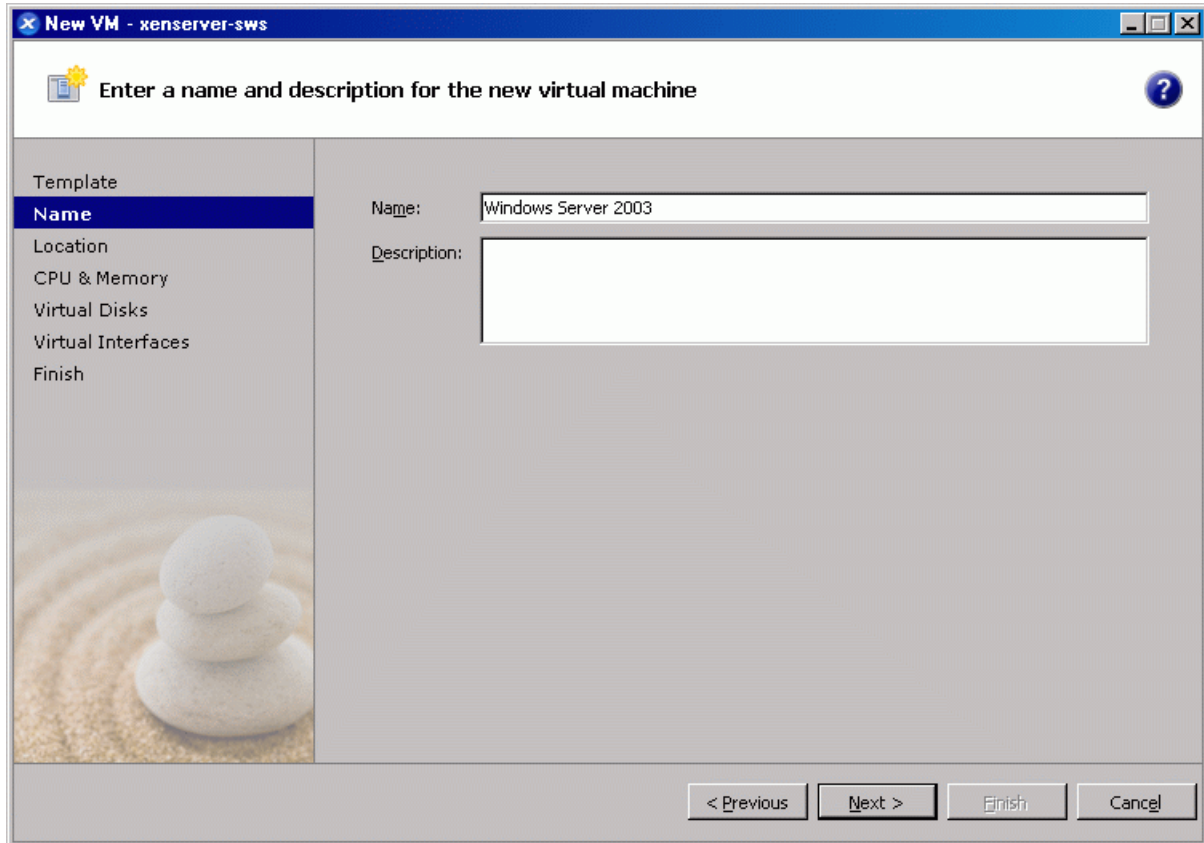
A **New VM** wizard will appear. Select the OS type you wish to Install on your virtual machine.

Note: to make the additional Linux templates available install Linux support pack from the second XenServer CD on the machine running XenServer.



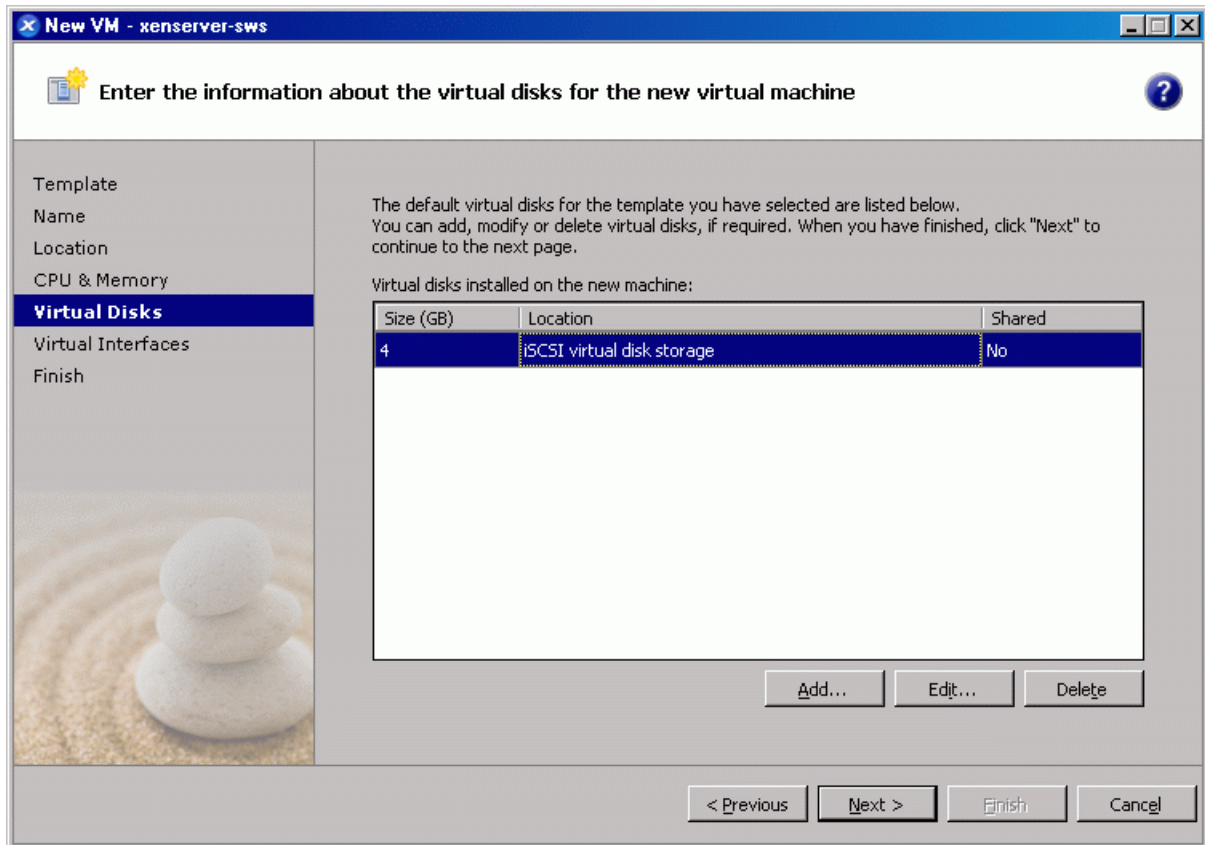
Click the **Next** button.

Enter a name and description for your VM



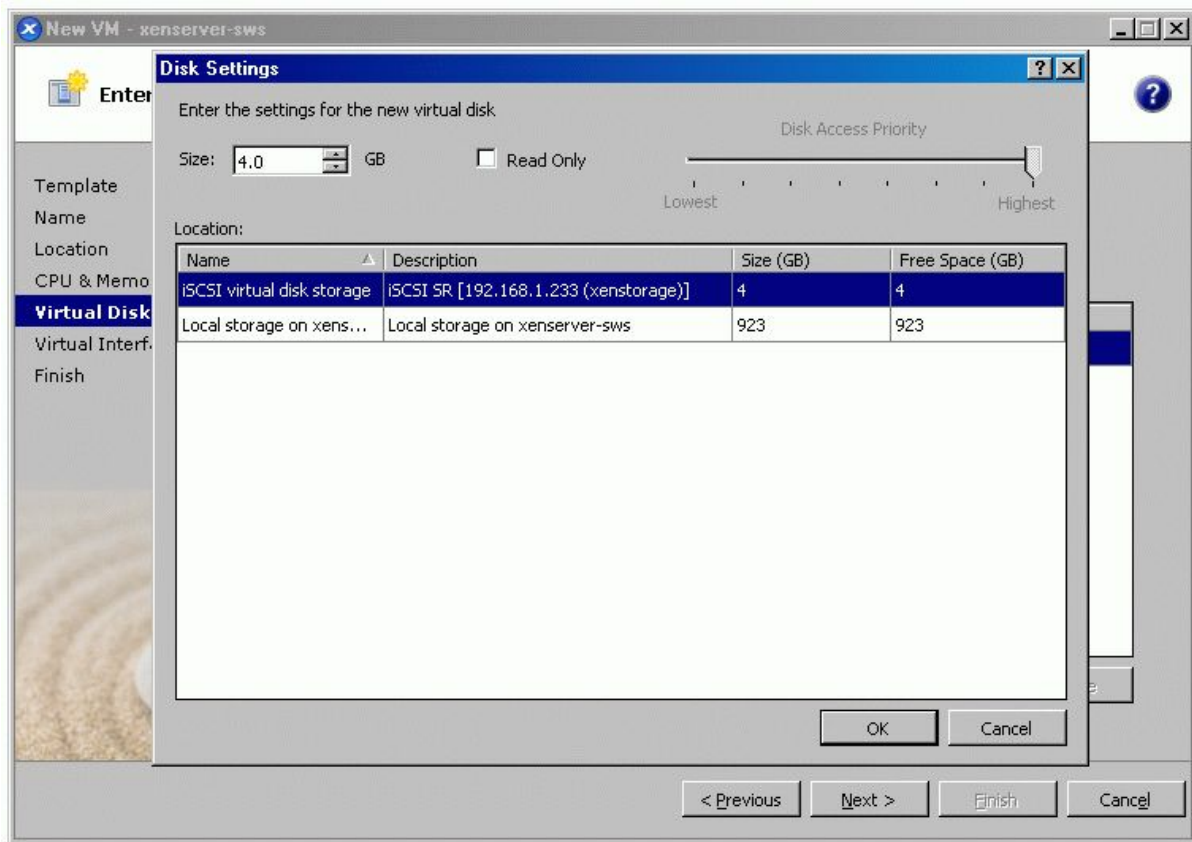
Click the **Next** button.

Select the storage where you want to store your virtual machine.

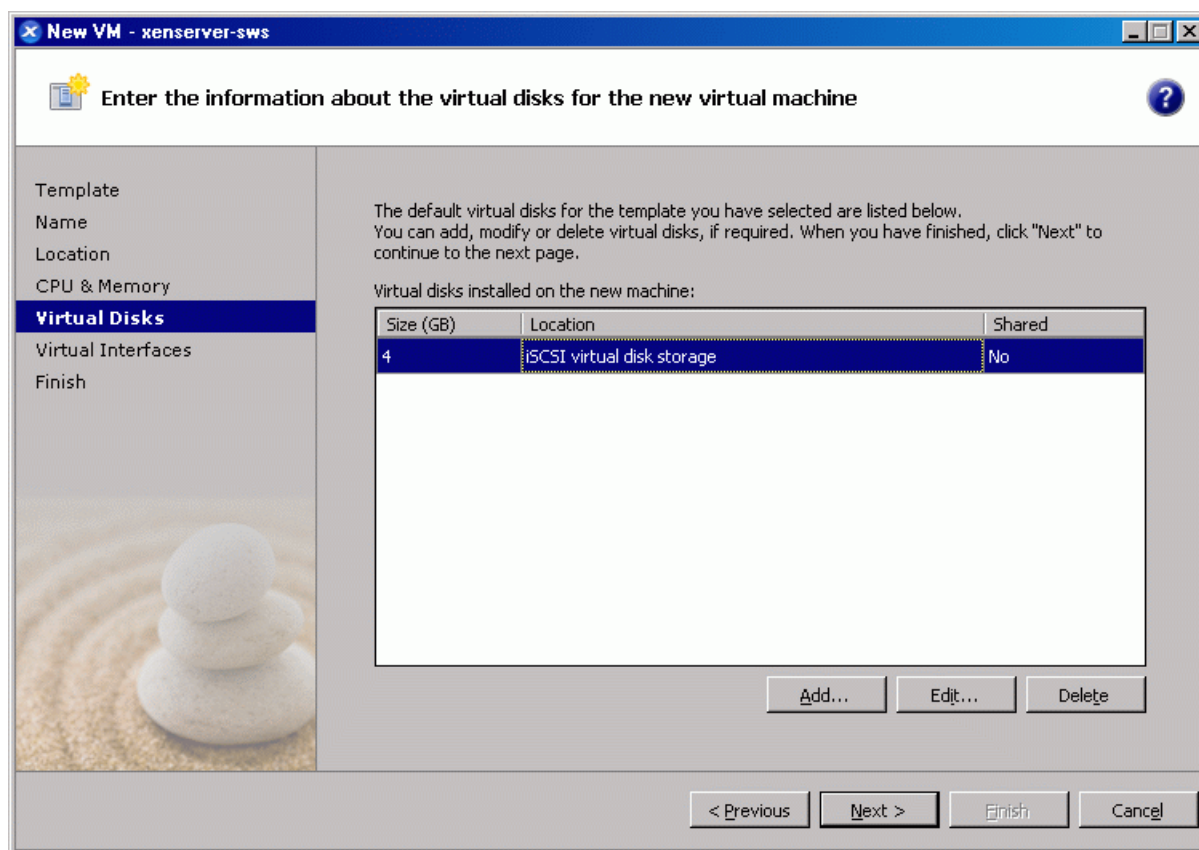


Click **Add...** if you want to add local or other storage to your VM.

In the Disk Settings window you can select storage available for your virtual machine and the VM's disk access priority if using local storage.

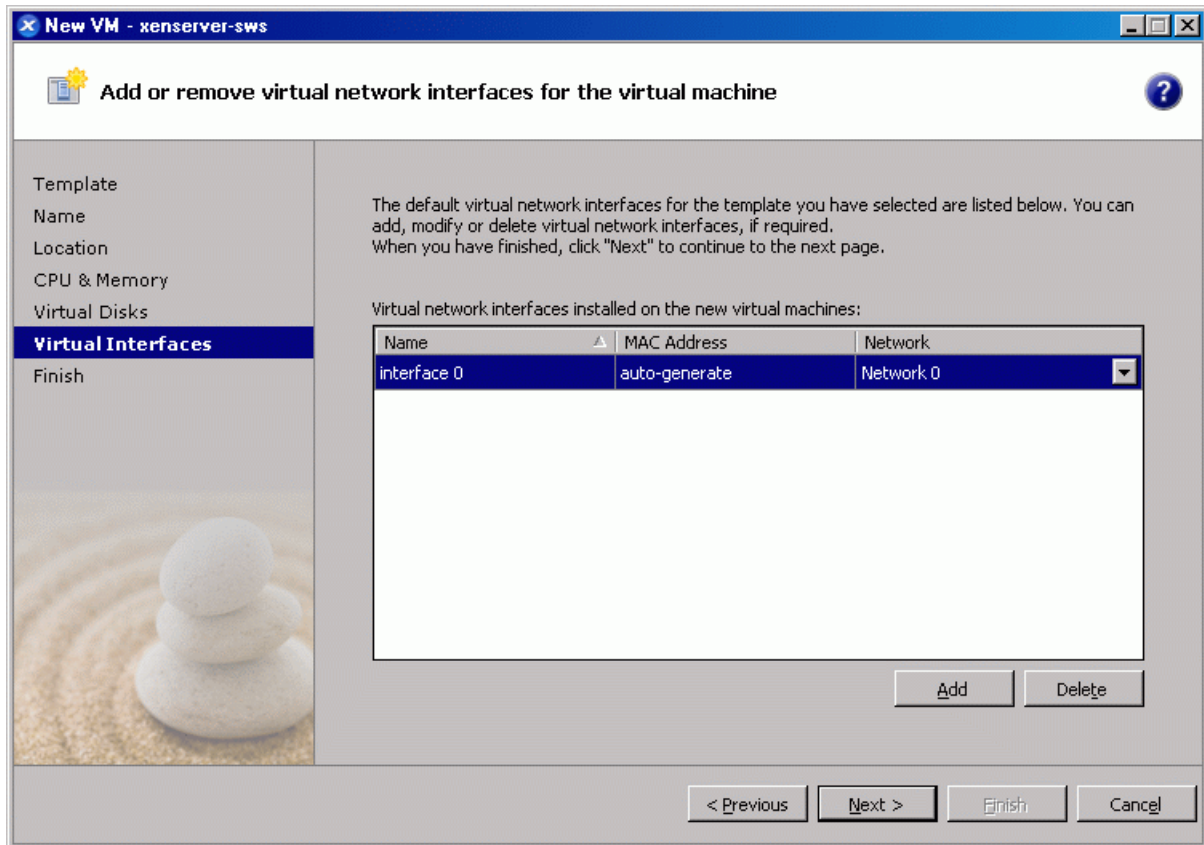


I.e. we have allocated 4 Gigabytes of disk space for our VM.
Pressing **OK** returns us to the previous screen.



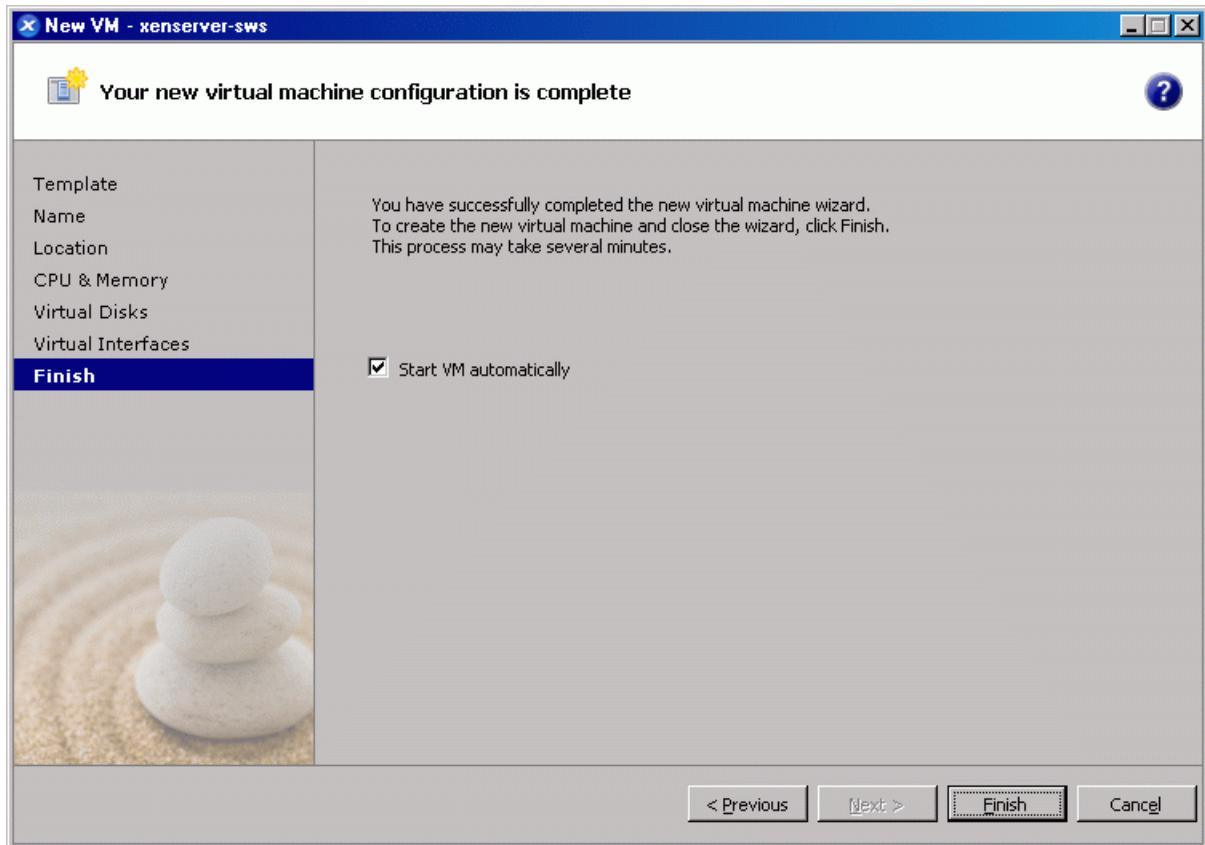
Click the **Next** button.

On this step we can manage network interfaces to use with our VM.



Select the desired network interface or/and add one with different settings. Click **Next** button to continue.

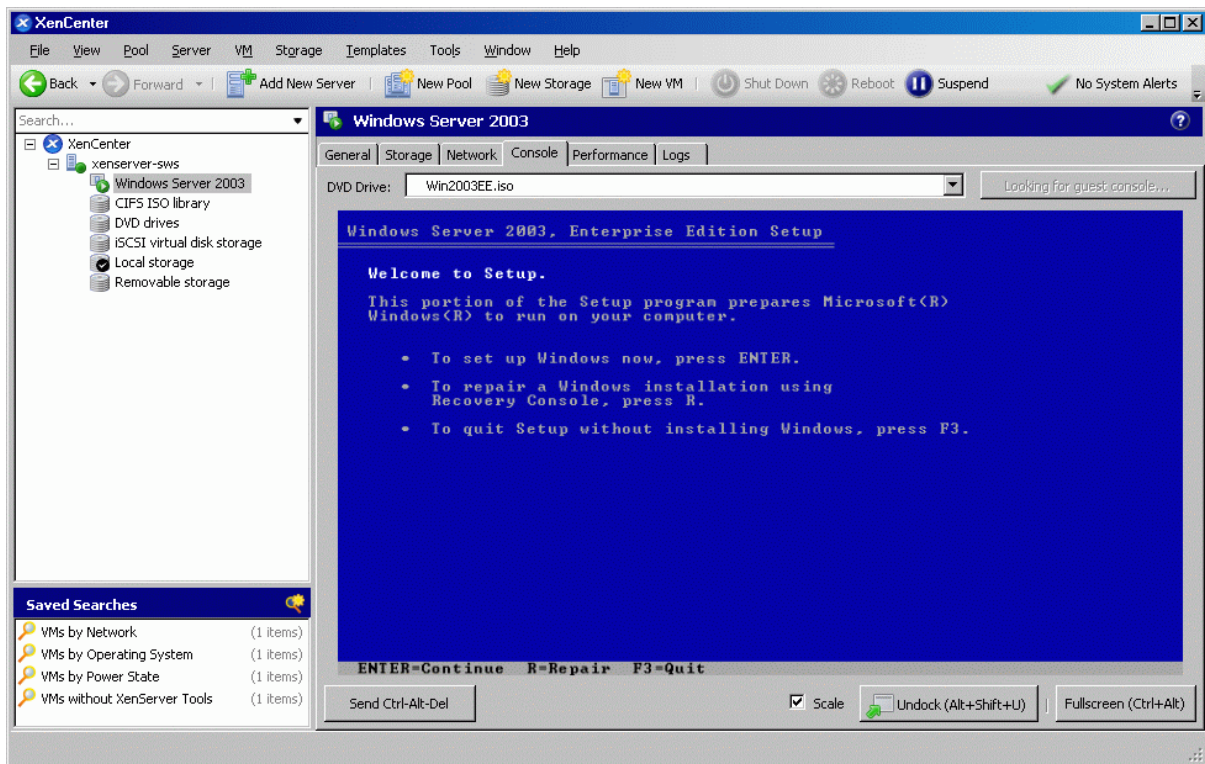
Select whether to power on VM after creation or to launch it later.



Click the **Finish** button.

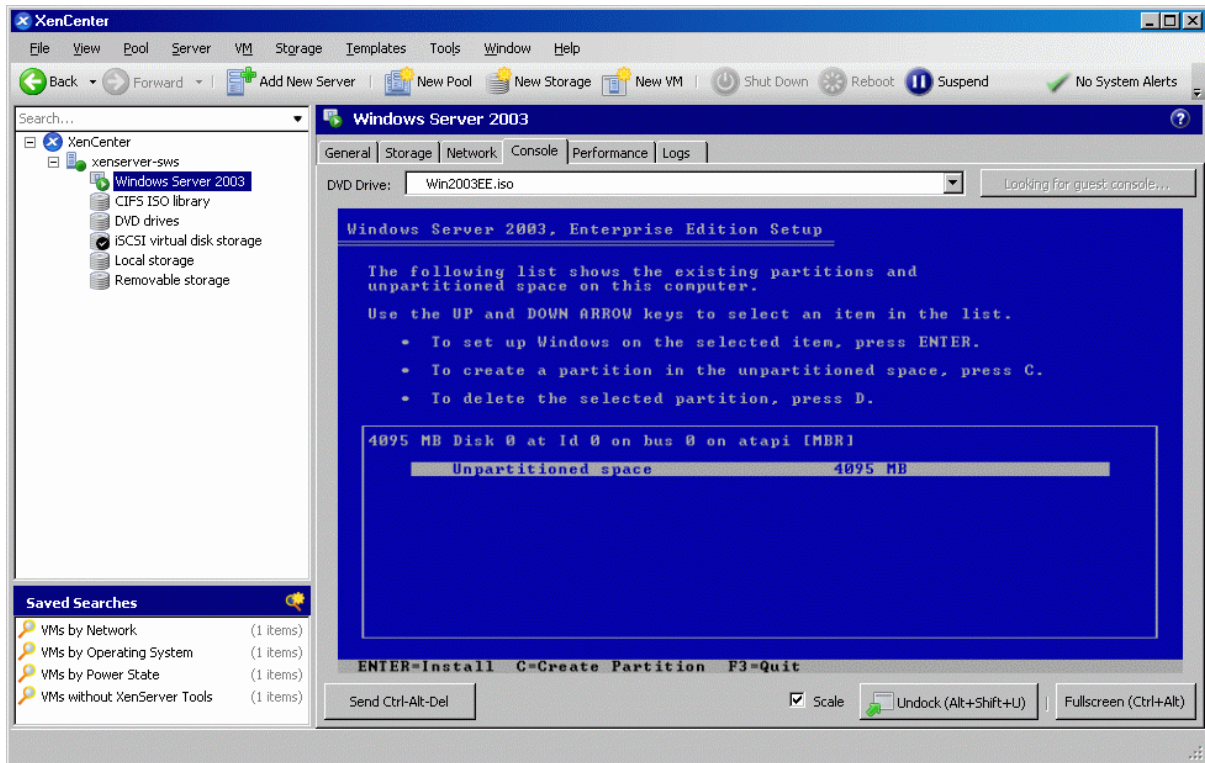
Now go to the **Console** tab.

As soon as the VM is online select your OS install repository from the DVD drive menu.



Click on the VM screen to dock your mouse and keyboard to it.

Here we can see that our iSCSI disk has been successfully mounted and is discovered by OS install like a regular local storage.



Install the OS in the usual way.

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