≈ **StarWind**
S O F T W A R E

StarWind iSCSI SAN Software: Using an existing SAN for configuring High Availability storage with Windows Server 2003 and 2008

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If you have questions about installing or using this software, check this and other documents first - you will find answers to most of your questions here or there. If you need further assistance, please contact us.
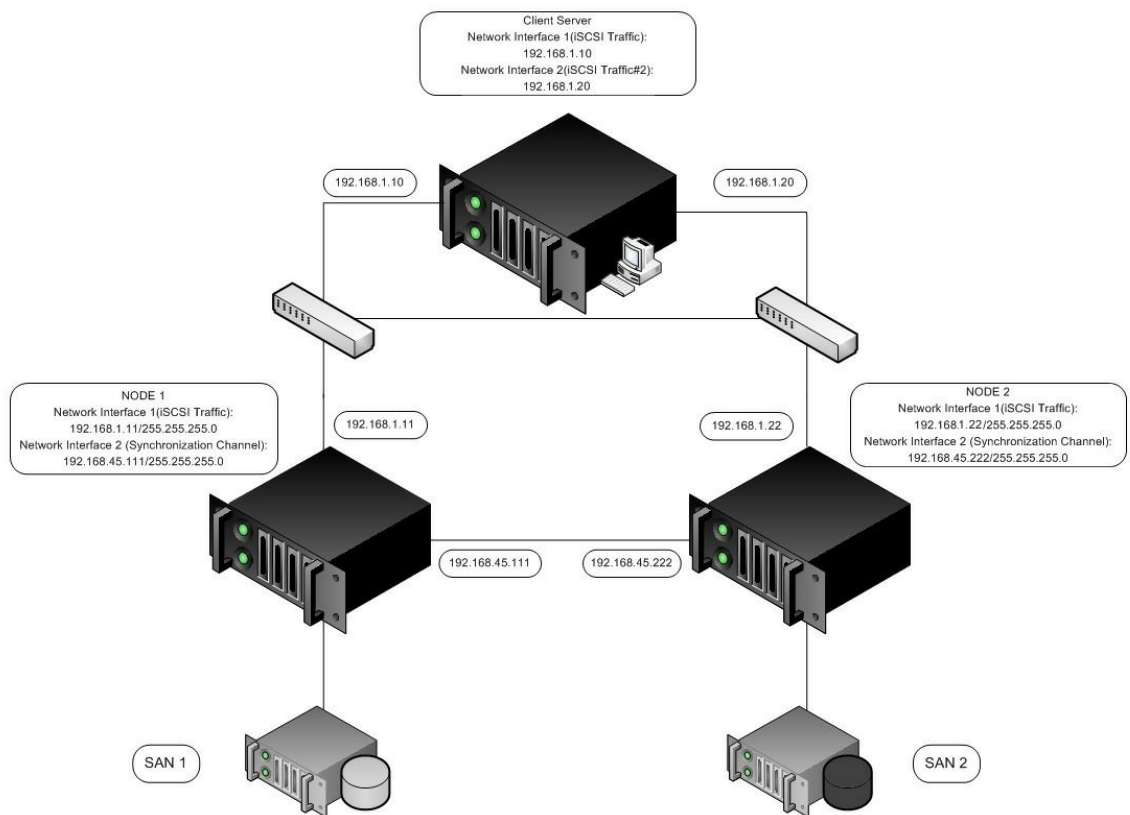
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Guide

Introduction

This document will walk you through the process of configuring HA configuration using your existing SAN.

Note: Data Synchronization Channel redundancy is required; use NIC teaming (link aggregation).

Configuring StarWind Server

Preconfiguring and connecting storage

Using HA requires some minor modifications to the servers that you will use as nodes for providing HA storage to the clients. You will have to configure iscsi initiator service and have it started before starwind service starts. It ensures that in the moment when starwind service is started, MS iSCSI Initiator is already up and connected to your storage where the virtual disk files are stored. You also need to bind volumes so that each time the initiator connects them to your server, they receive a constant drive letter.

- To set StarWind service dependent go **Start->Run**, type "cmd" and click **OK**.
- In the command line type "sc config starwindservice depend= msiscsi" and press the **Enter** key on your keyboard.

Now connect to your SAN using Microsoft iSCSI Initiator, initialize and format the disk you have connected, assign a drive letter to it.
- In the MS Initiator window click the **Volumes and Devices** tab and click **Auto Configure** button.

This will bind the volumes with the drive letters you have assigned to them.

The procedure described above has to be performed on both StarWind Servers.

Preparing Storage

- To launch the StarWind Console, from the **Start** menu select **StarWind Software -> StarWind**.

Whenever the StarWind Console is running, its icon will appear in the system tray.

The StarWind Console may be accessed by double-clicking the icon using the left mouse button, or with a single click using the right mouse button and selecting **Start Management** from the pop-up menu.
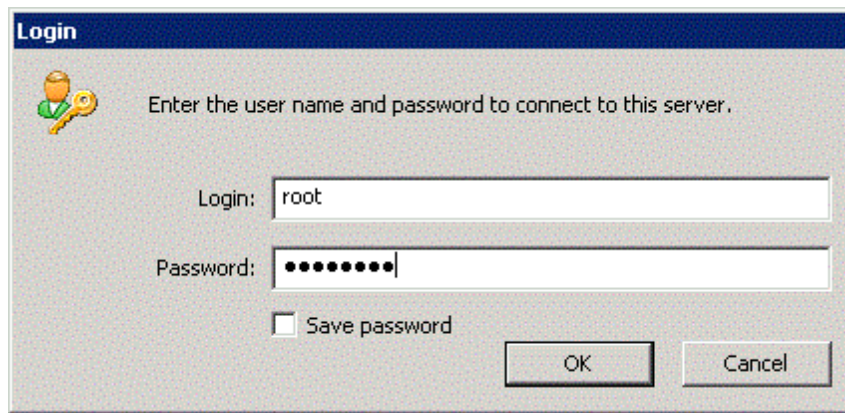
- From the **Connections** tree, select the computer you want to provision the iSCSI target device on.
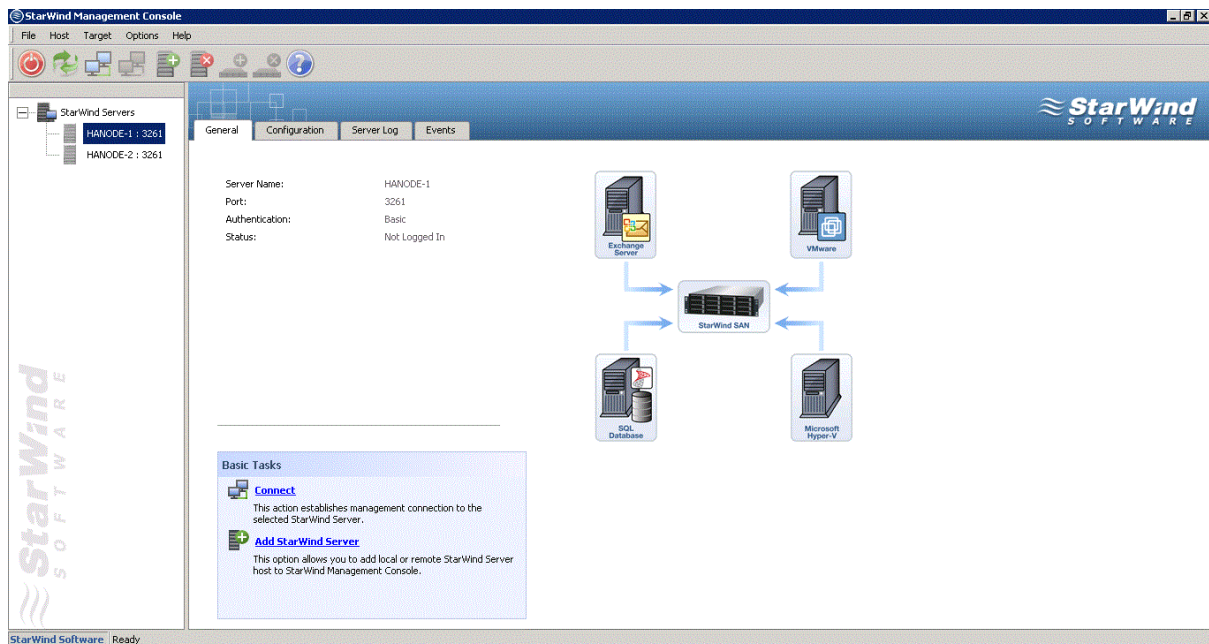
- Double-click the host to connect.

- Enter the login and password.

The default login and password are "root" and "starwind." You can always change them later.

- To store password, select the **Save password** checkbox and click the **Yes** button.
- Click **OK** to continue.

Now when you are connected to the StarWind Service on the machine you can create targets on it.
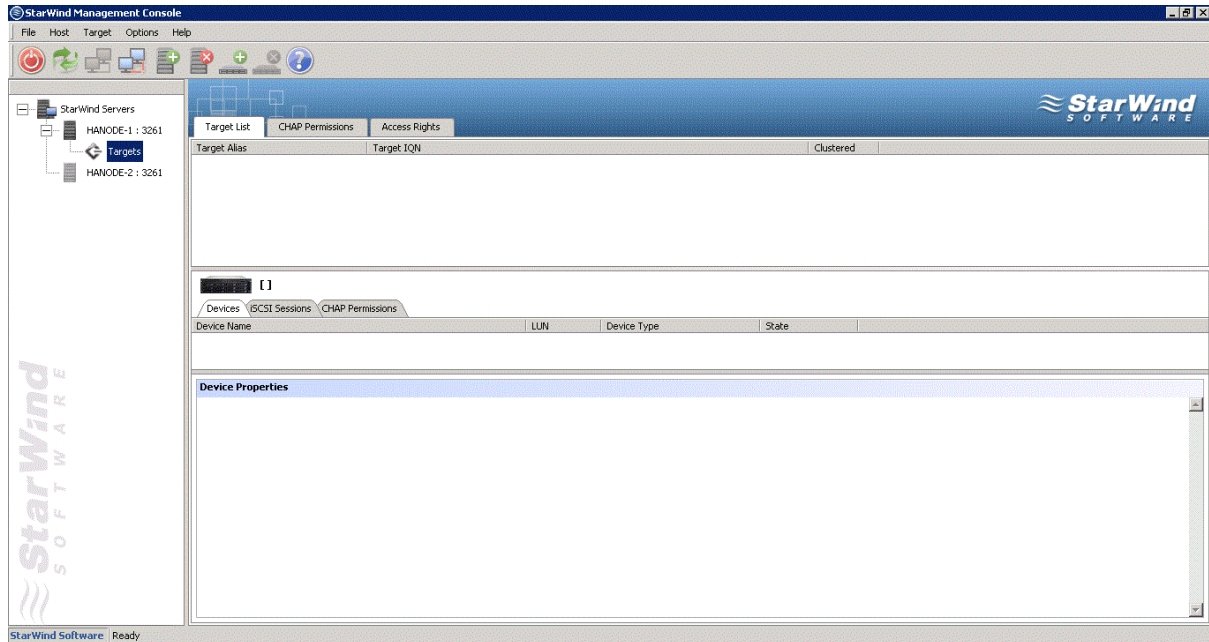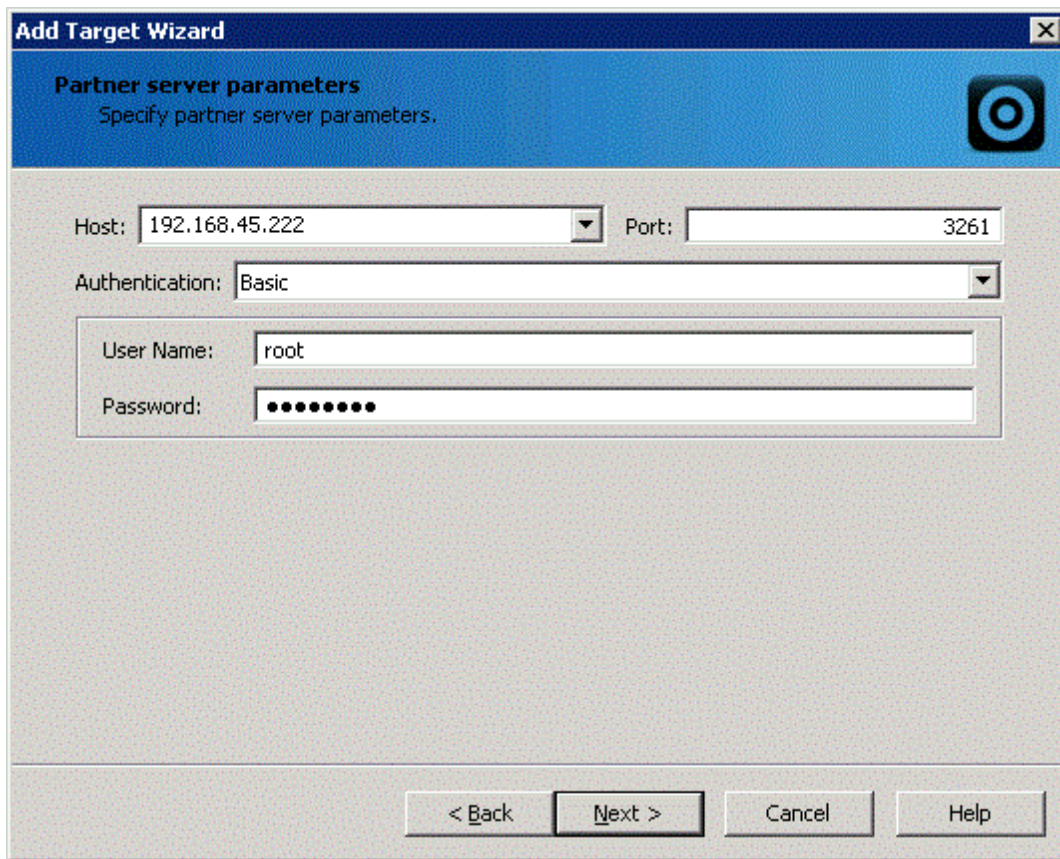
To create targets:

• Click the **Add Target** button to continue.

• In the wizard that appears, specify a unique target name. Using it the device will be declared to the iSCSI initiators connecting to StarWind over an IP network.
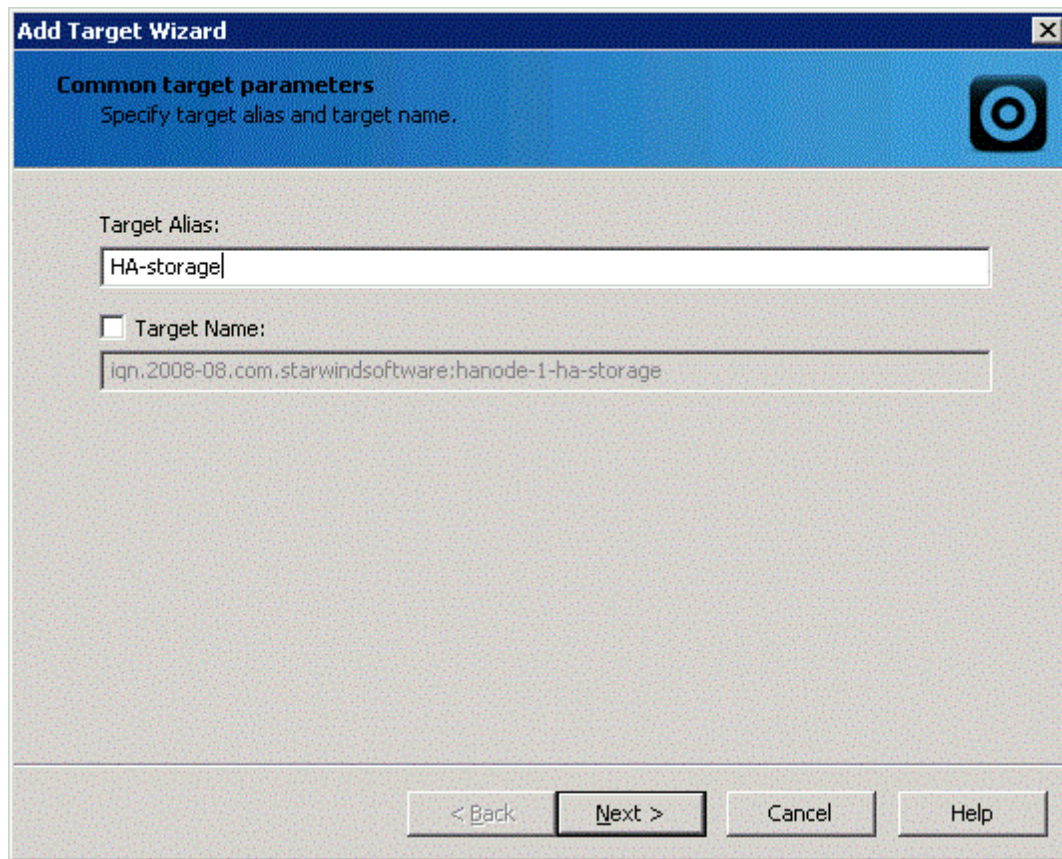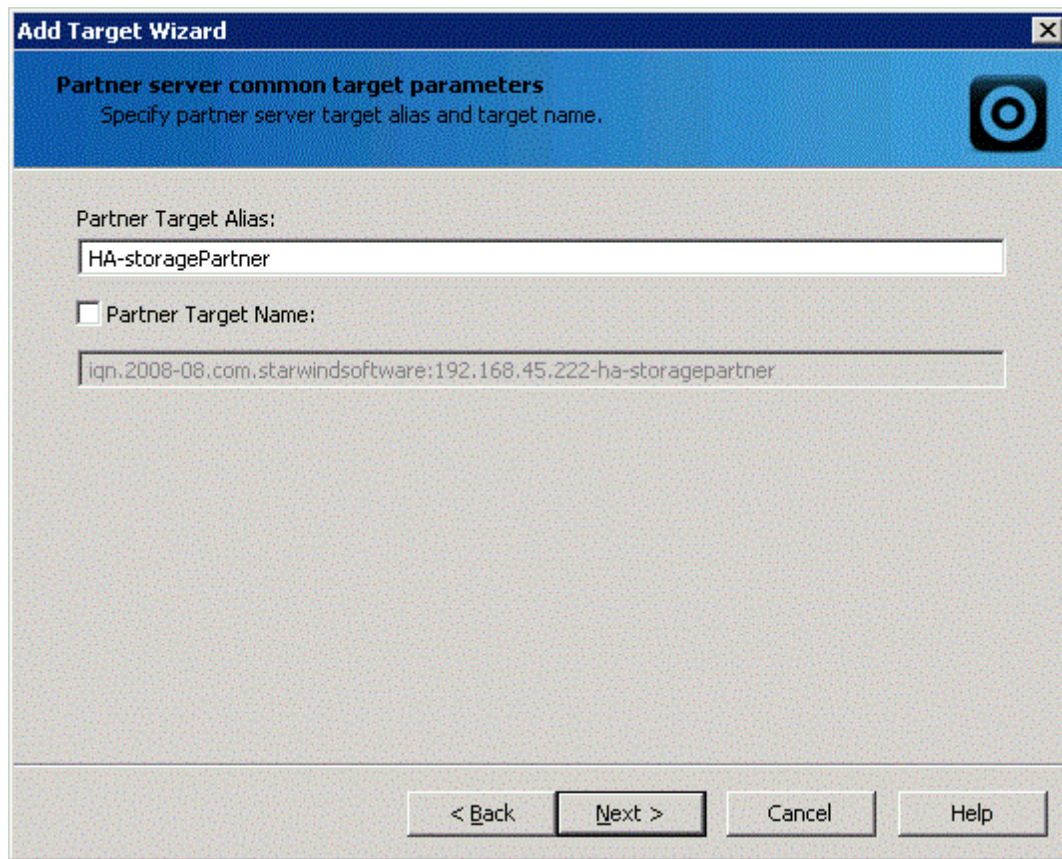
- Click the **Next** button to continue.

- Select the HA device type by going **Hard Disk->Advanced Virtual->High Availability device.**
- Specify the partner server parameters. Enter the server's IP address or host, and specify the user name and password for the StarWind Service.

- Click the **Next** button to continue.

- Enter target alias and target name that will be assigned to the partner target.
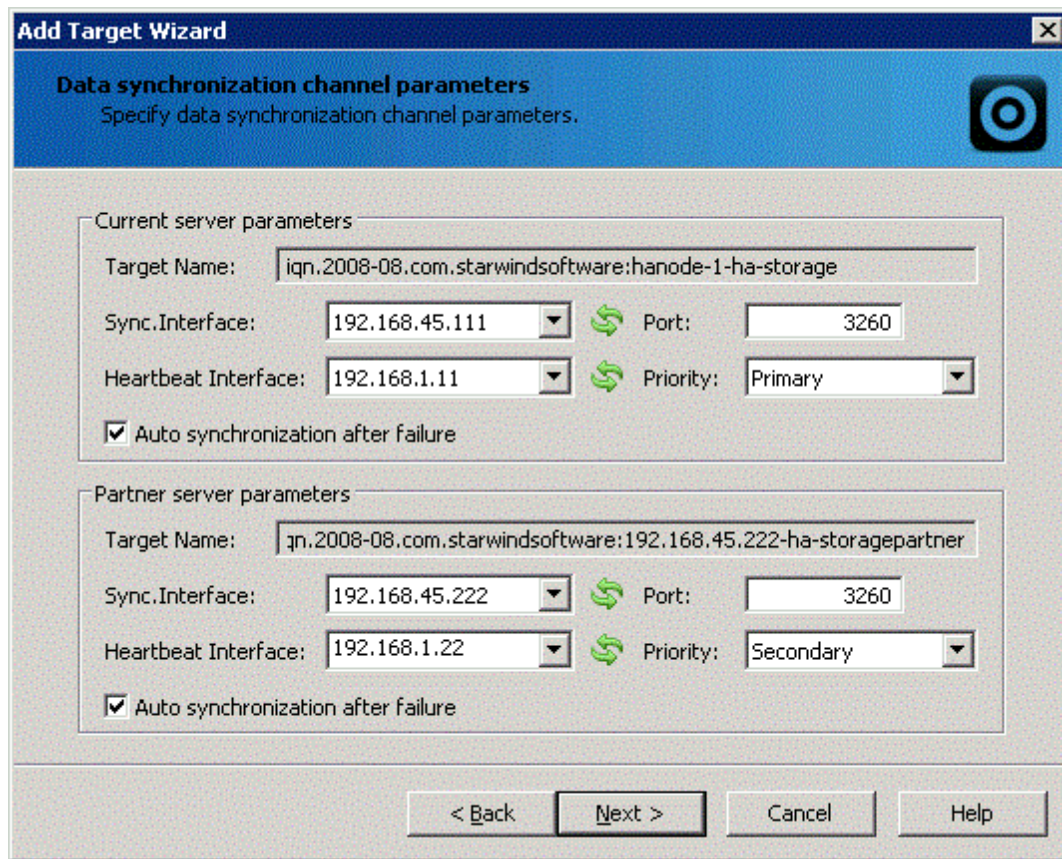
- Click the **Next** button to continue.

- Specify the location and name of your local virtual disks and your partner's virtual disks by clicking the "..." button.
- If you want to create new virtual disks, select the **Create New** checkbox.
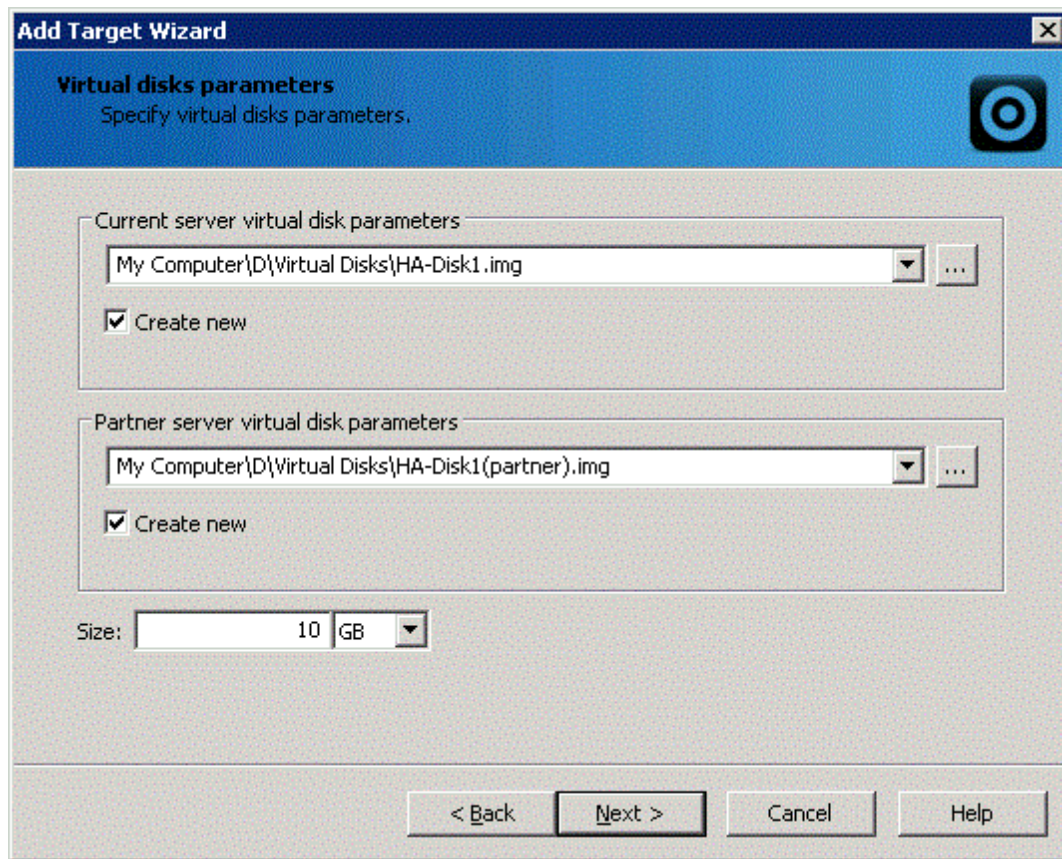
- Click the **Next** button to continue.

- Configure the data synchronization and heartbeat channels parameters by specifying the network interface for synchronization and heartbeat respectively. You can also set node priority by designating it as Primary or Secondary.

- Click the **Next** button to continue.

- Specify HA device cache type and size.

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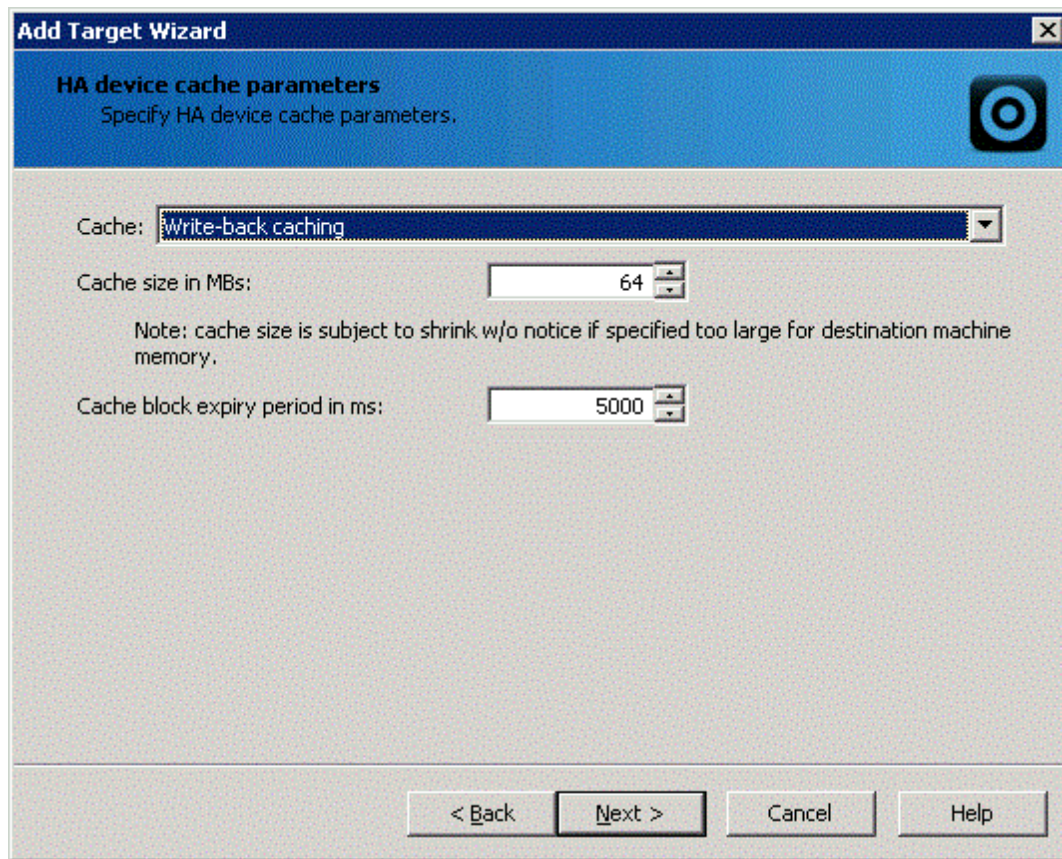
- Click the **Next** button to continue.

- Specify the method to initialize your HA device.
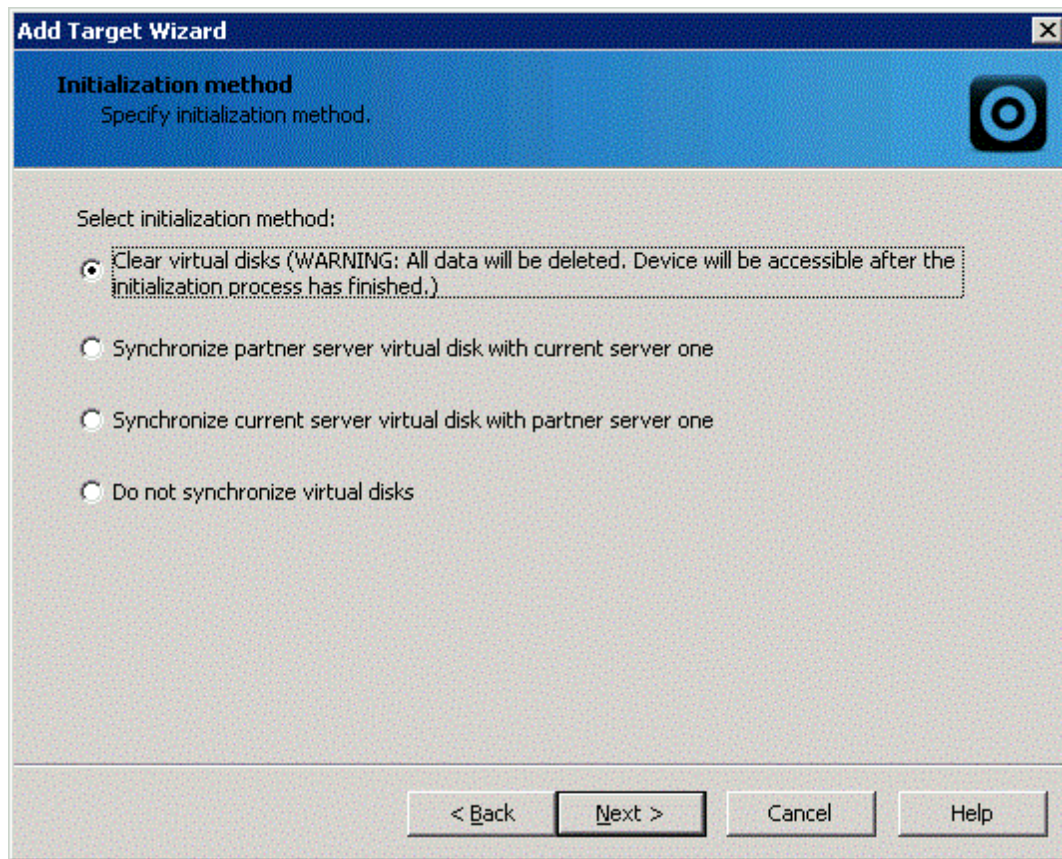
- Click the **Next** button to continue.

- Make sure that the device parameters are correct. Click the **Back** button if you need to make any changes.

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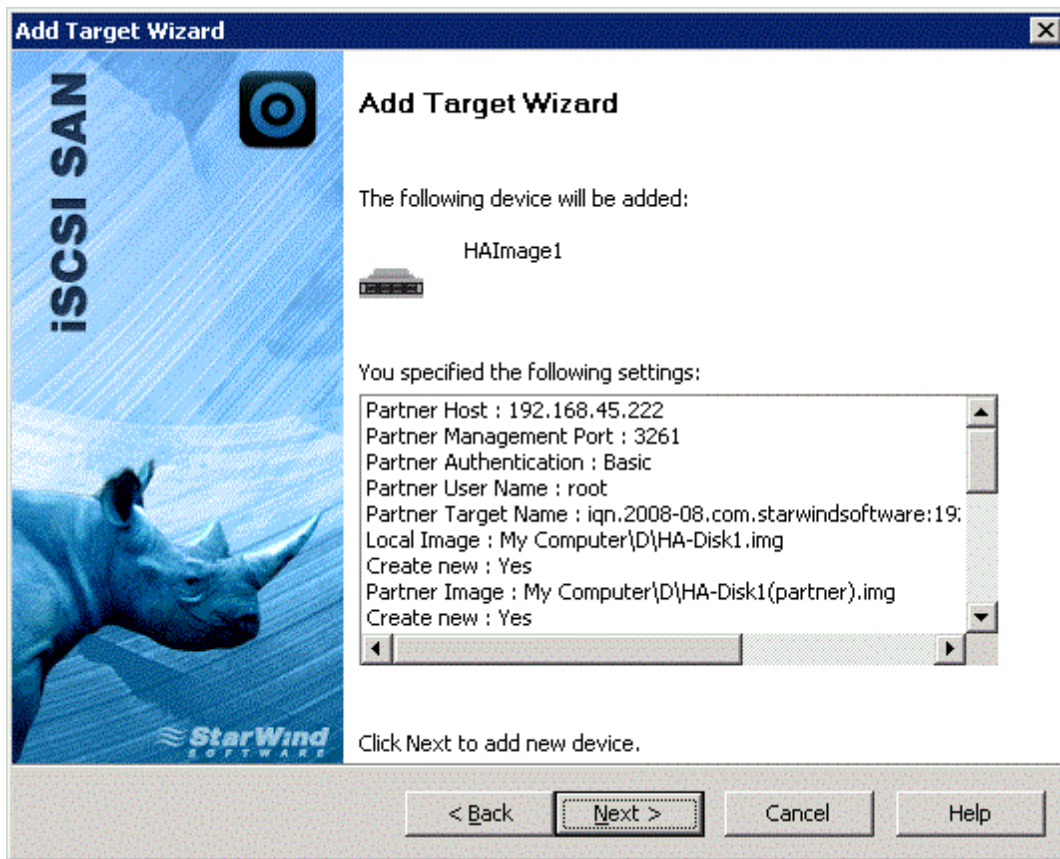
• Click the **Next** button to continue.

A summary is displayed on the last wizard page.
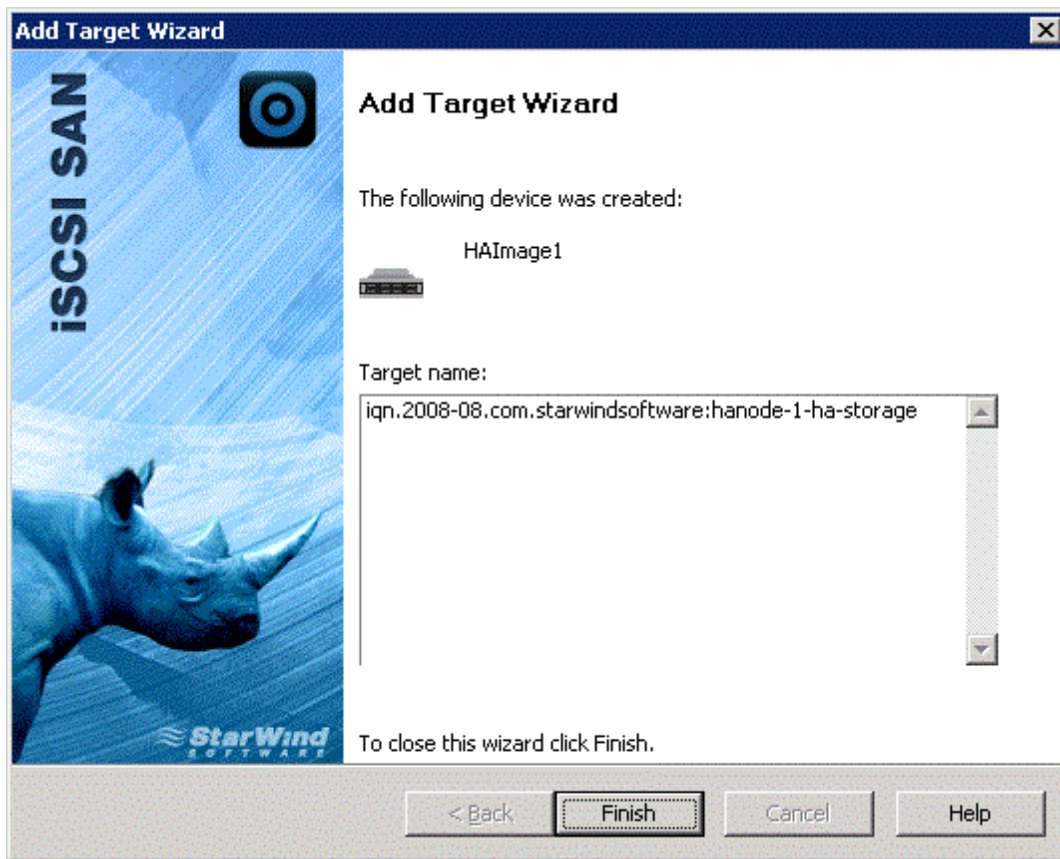
• Click the **Finish** button to close the wizard.

Configuring Windows Server 2008

Install MPIO Feature

To open Server Manager**:**
- From the **Start** menu, select **Administrative Tools**->**Sever Manager**.
- Click the **Features** item.
- Click **Add Features**. An **Add Features Wizard** will appear.
- In the features list select the **Multipath I/O** checkbox and install it**.**

Connect Targets
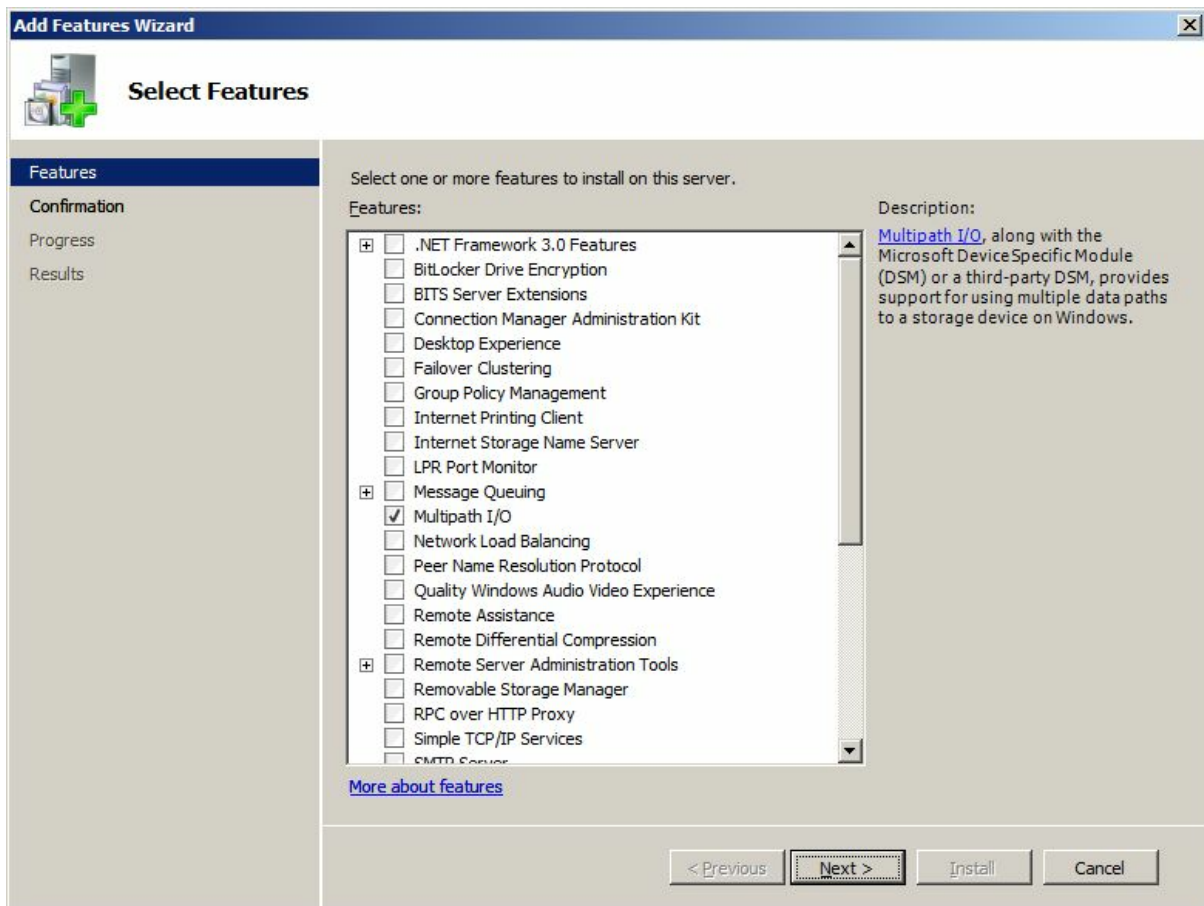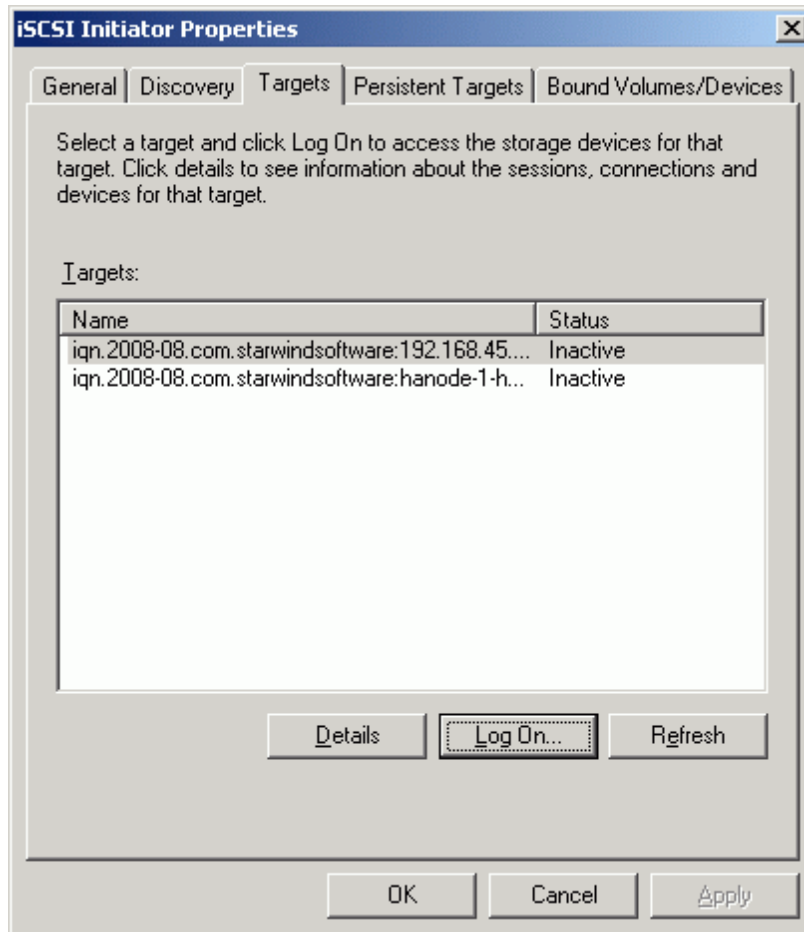
You connect targets in the Microsoft iSCSI Initiator:

1. From the **Start** menu, select **Administrative Tools -> iSCSI Initiator**.
2. Click the **Discovery** tab.
3. To add StarWind servers, click the **Add Portal ...** button and specify the servers' IP addresses.

4. Switch to the **Targets** tab.
5. To connect the targets, click the **Log On…** button. A **Log On to Target** dialog appears.
6. Select the **Automatically restore this connection when the system boots** checkbox.
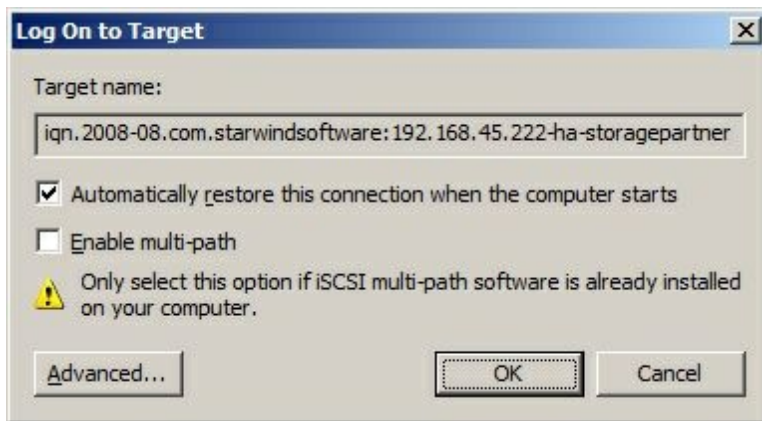
Target 1

Target 2

Click the **OK** button to connect the target.
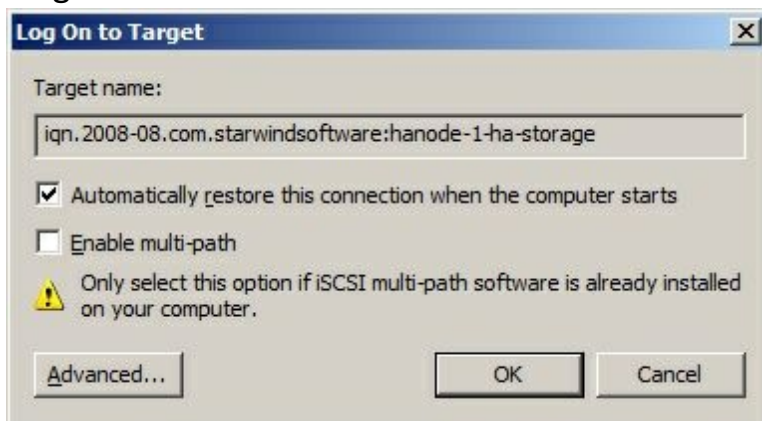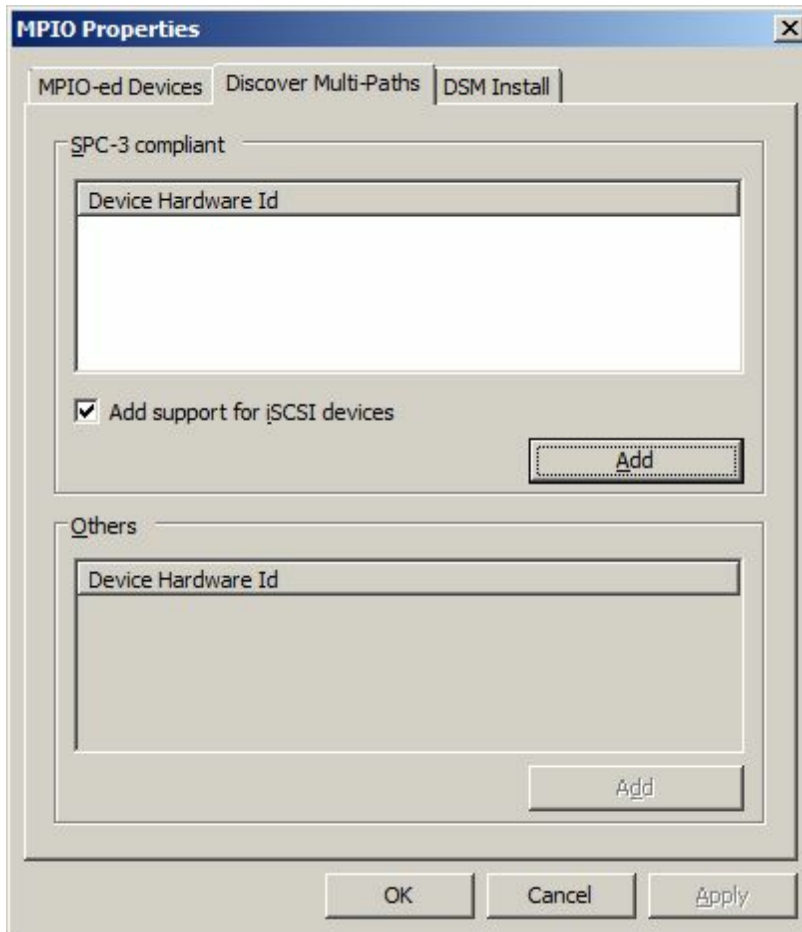
Enable Multipath Support

To enable Mutlipath Support:

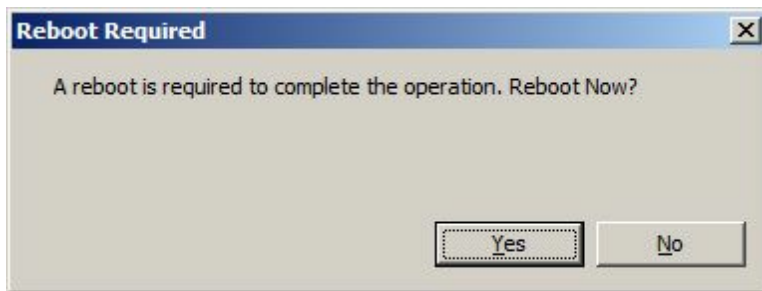1. Open the MPIO manager by selecting from the **Start** menu **Administrative Tools->MPIO**.
2. Click **Discover Multi-Paths** tab. Select the **Add support for iSCSI devices** checkbox.

3. Click the **Add** button.
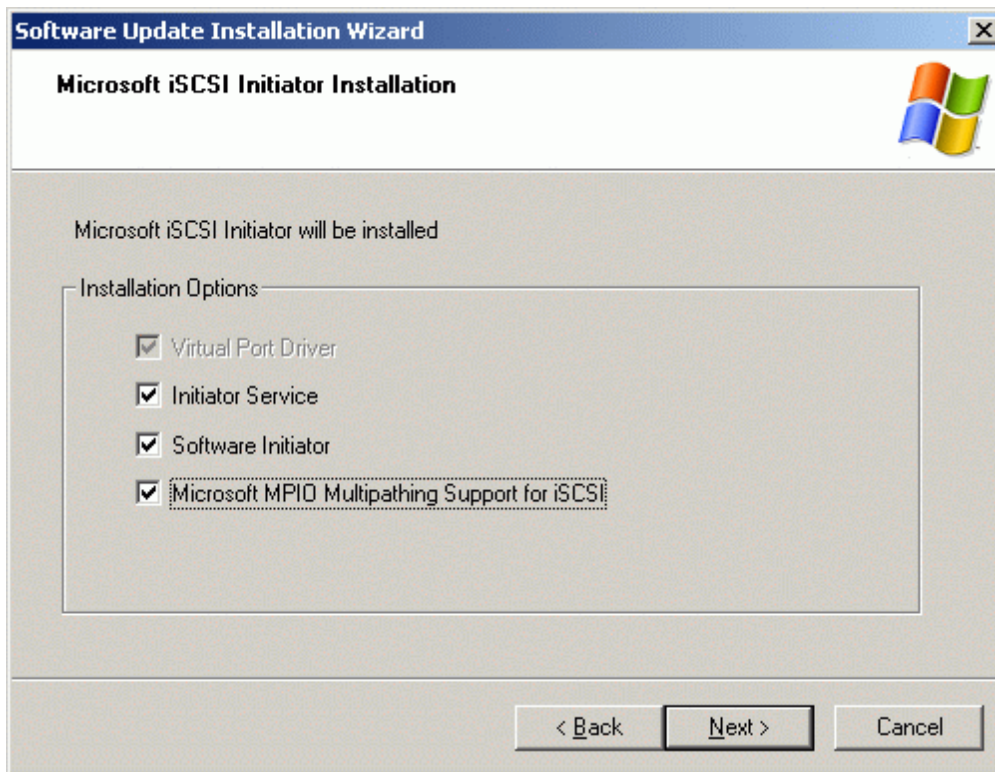
Windows will prompt you to reboot the server.

Reboot Required ✕

A reboot is required to complete the operation. Reboot Now?

Yes   No

4. Click **Yes** to restart your server.

Configuring Windows Server 2003

Enable Multipath Support

1. Download Microsoft iSCSI Initiator and install it. Make sure the **Microsoft MPIO Multipathing Support for iSCSI** checkbox is selected.
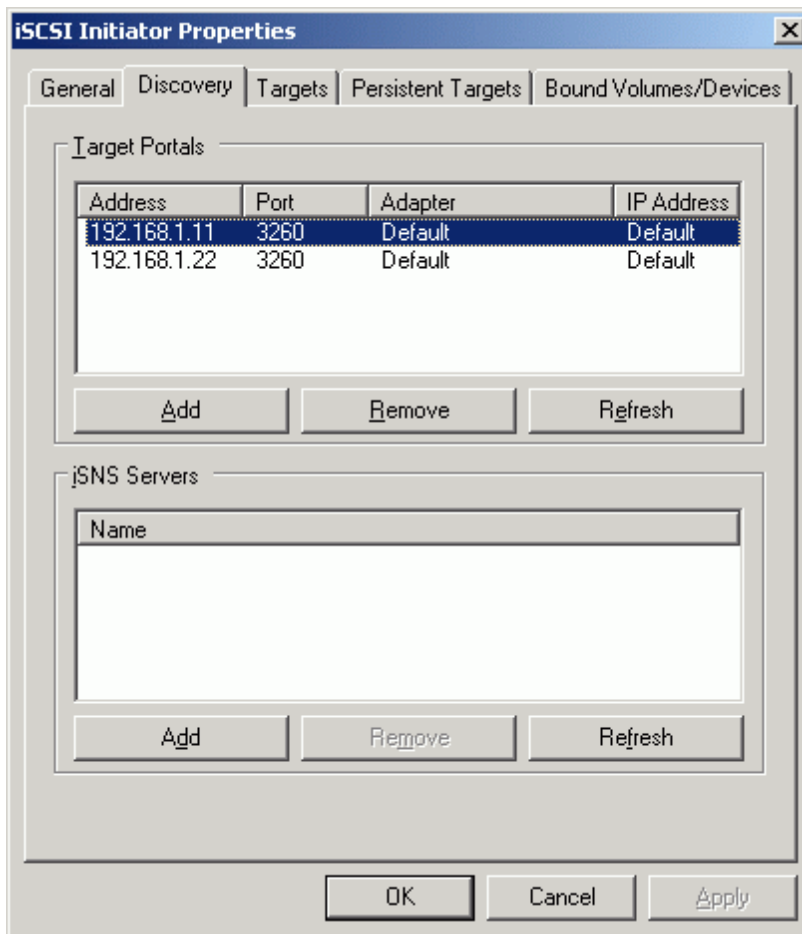

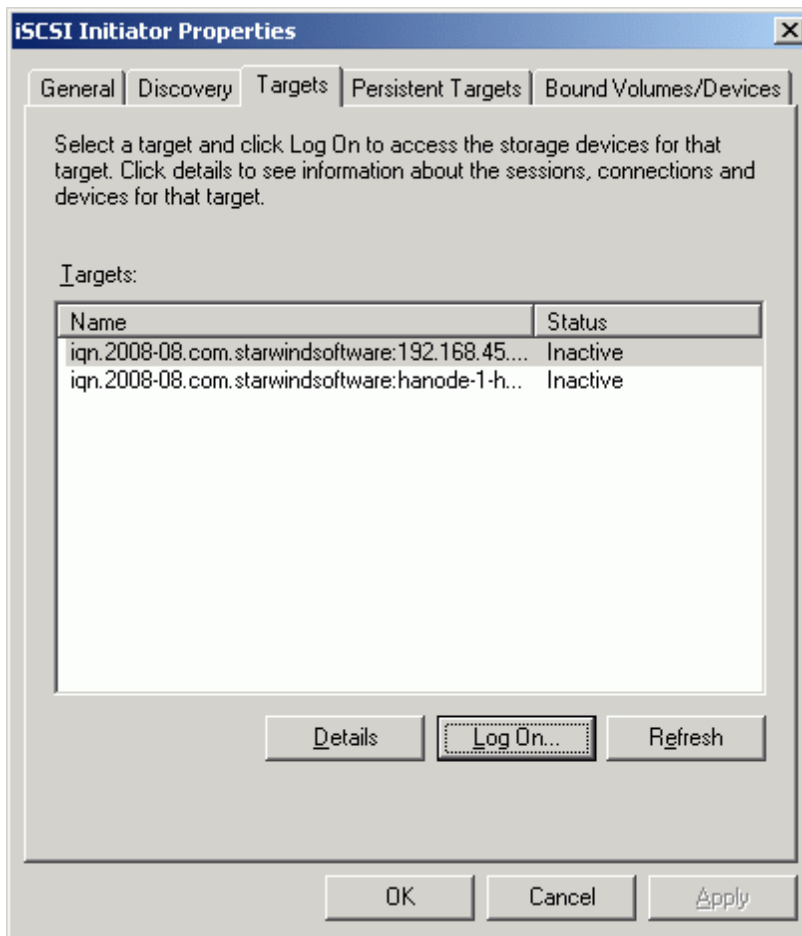2. Restart the computer before continuing.

Connect Targets

To connect targets:

1. Launch the MS iSCSI Initiator by selecting from the **Start** menu **All Programs->Microsoft iSCSI Initiator**.
2. Click the Discovery tab. by
3. To add each of the StarWind servers, click the **Add** button and specify server IP address.
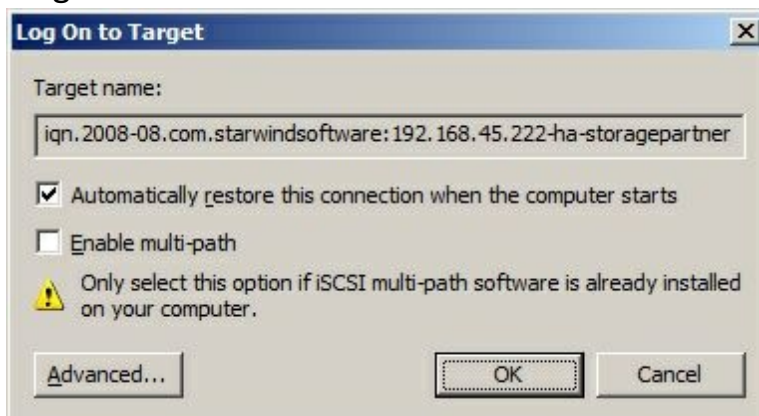

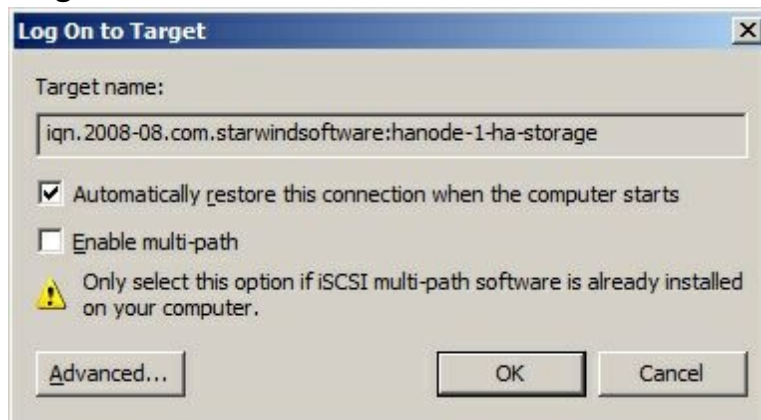4. Click the **Targets** tab.

5. Click the **Log On...** button to connect the targets. A **Log On to Target** dialog appears.
6. Select the **Automatically restore this connection when the system boots** checkbox.

Target 1

Target 2

7. Click **OK** to connect the target.

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