

iStorage Server: Working with MetaSAN to share iSCSI volumes

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KernSafe Technologies, Inc.

www.kernsafe.com

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Table of Contents

Overview	3
Configuring on iStorage Server.....	4
Create Target	4
Add IP Filters	10
Configuring on First Client as MetaSAN	12
Connecting target	12
Configuring MetaSAN	16
Configuring on the second Client as MetaSAN	22
Connecting target	22
Configuring MetaSAN	22
Contact	26

Overview

iStorage Server is a network based storage virtualization software powered by KernSafe Technologies, Inc. Being a powerful, full-featured and software-only iSCSI Target SAN solution, that can quickly convert existing Windows computer into IP SAN. Storage media of iSCSI Target can include existing storage devices such as the entire hard disks or partitions, CD-RWs, tapes and USB storage devices, as well as disk image file or CD image files including ISO9660(iso), .bin, .mdf, .cdi, .b5i, .nrg, .ccd, .sub, .img, .raw and other image file formats. Furthermore, iStorage Server also supports a lot of features such as: VHD (Virtual Hard Disk) target, snapshots, STPI, RAID-1 and failover, these features are very important and popular in storage industry world and make iStorage Server suitable for any size of business.

MetaSAN is a high-speed file sharing Storage Area Network (SAN) management software that sets new standards for cross-platform workgroup collaboration. MetaSAN enables multiple users to share access to common data files in workgroups where heavy bandwidth requirements are the norm. With MetaSAN, film and video editors, digital artists, healthcare specialists, and corporate users can simultaneously access a common pool of data files such as video clips, databases, satellite imagery, medical archives, or CAD files - as easily and transparently as if the content was stored on their local drive.

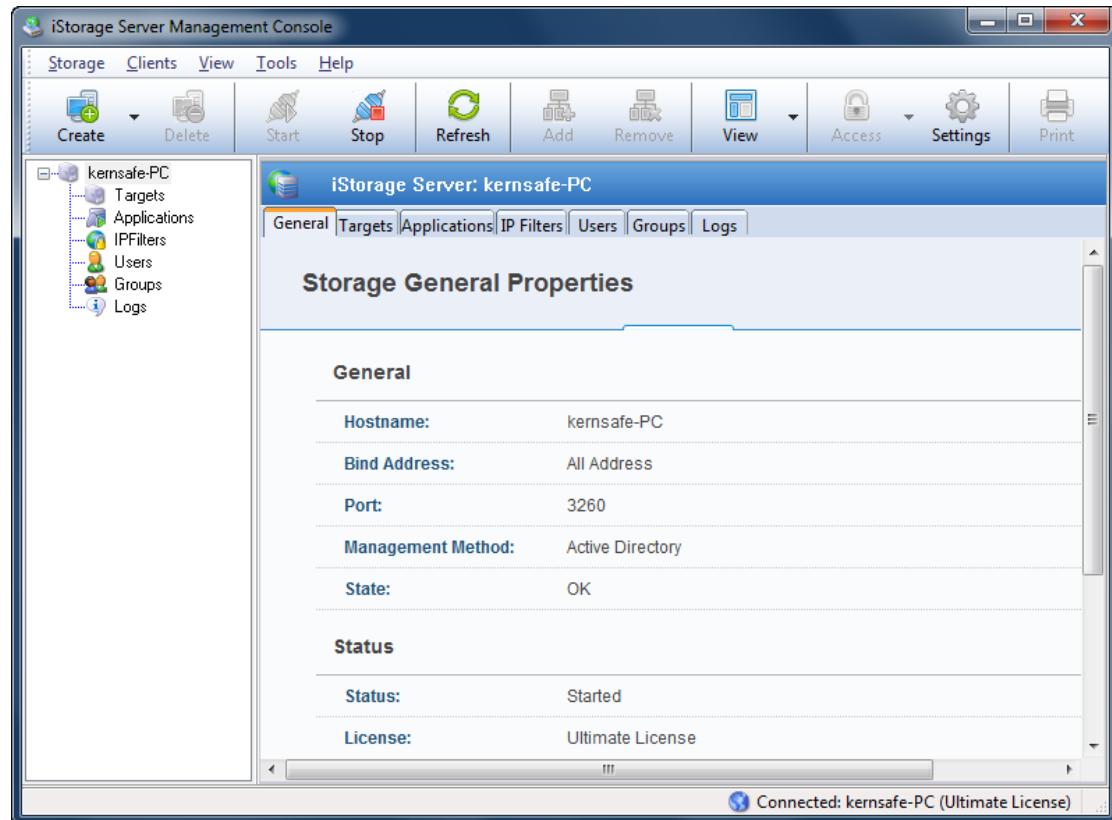
MetaSAN can seamlessly integrate SAN and LAN networks. With the addition of metaLAN, a multi-point gateway software that connects your enterprise LAN with your high-speed SAN, your entire facility can now benefit from many unique SAN advantages.

This article demonstrates how iStorage Server works with MetaSAN. MetaSAN is compatible with standard iSCSI Initiators (computers) and Targets (shared storage) and prevents data corruption by arbitrating simultaneous accesses. Hardware and software agnostic, MetaSAN allows companies to easily customize their SAN environments to accommodate particular workflow needs, both from a technical and budgetary perspective.

Configuring on iStorage Server

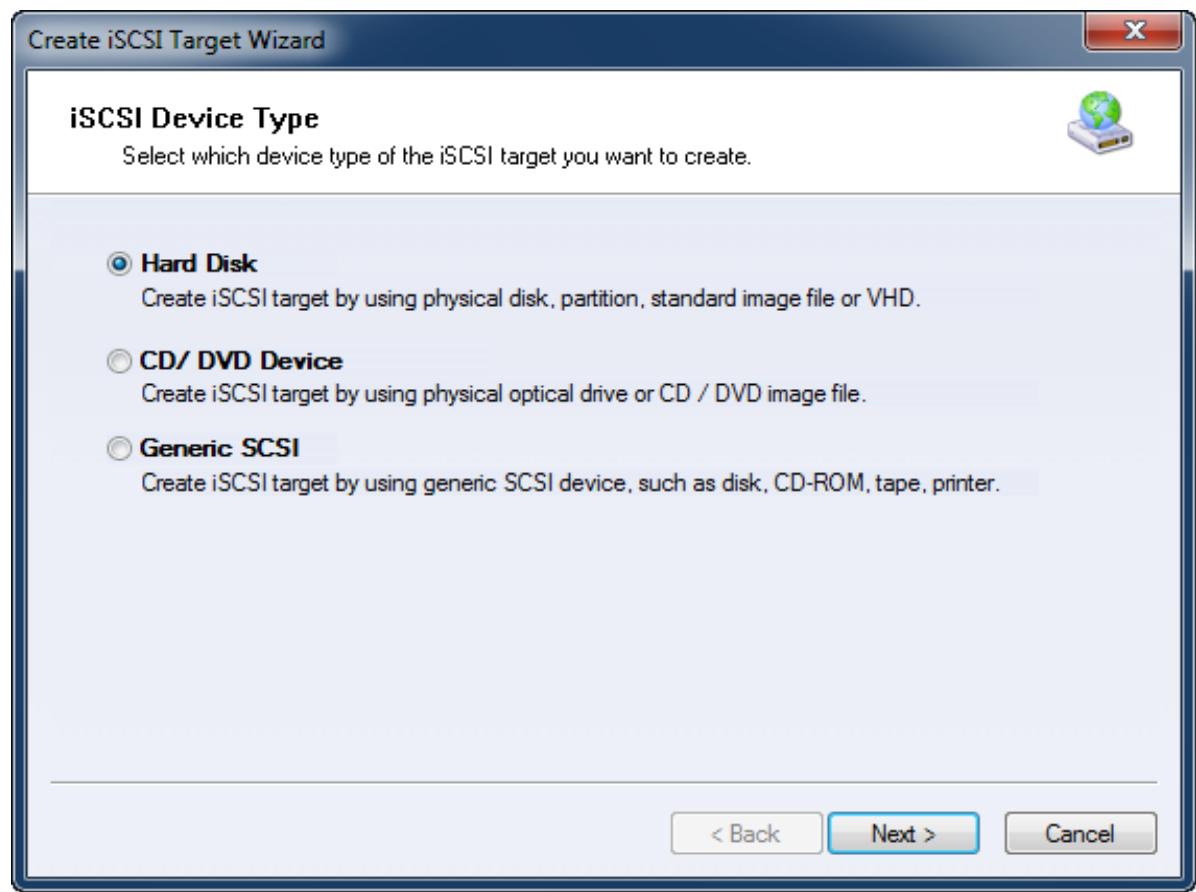
Create Target

Open iStorage Server Management Console.



Press the **Create** button on the toolbar, the **Create Device Wizard** is shown.

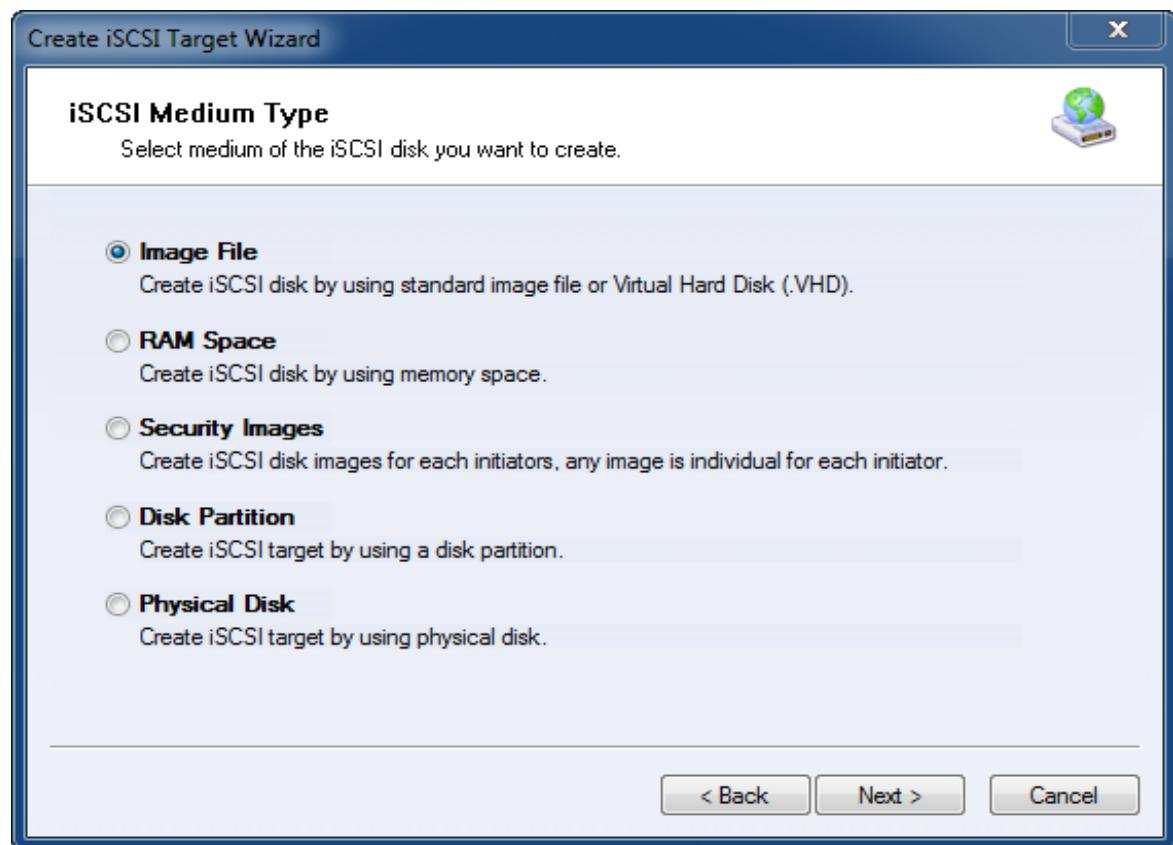
Select device type



Choose **Hard Disk**.

Press the **Next** button to continue.

Select a medium type.



Choose **Image File** in **iSCSI Medium Type** window.

Then press **Next** button to continue.

Select an Image type.

Create iSCSI Target Wizard

iSCSI Image Type

Select image type of the iSCSI disk you want to create.



Standard Image File

Create iSCSI disk by using a standard disk image file.

Virtual Hard Disk (VHD)

Create iSCSI disk by using a Virtual Hard Disk image file.

< Back

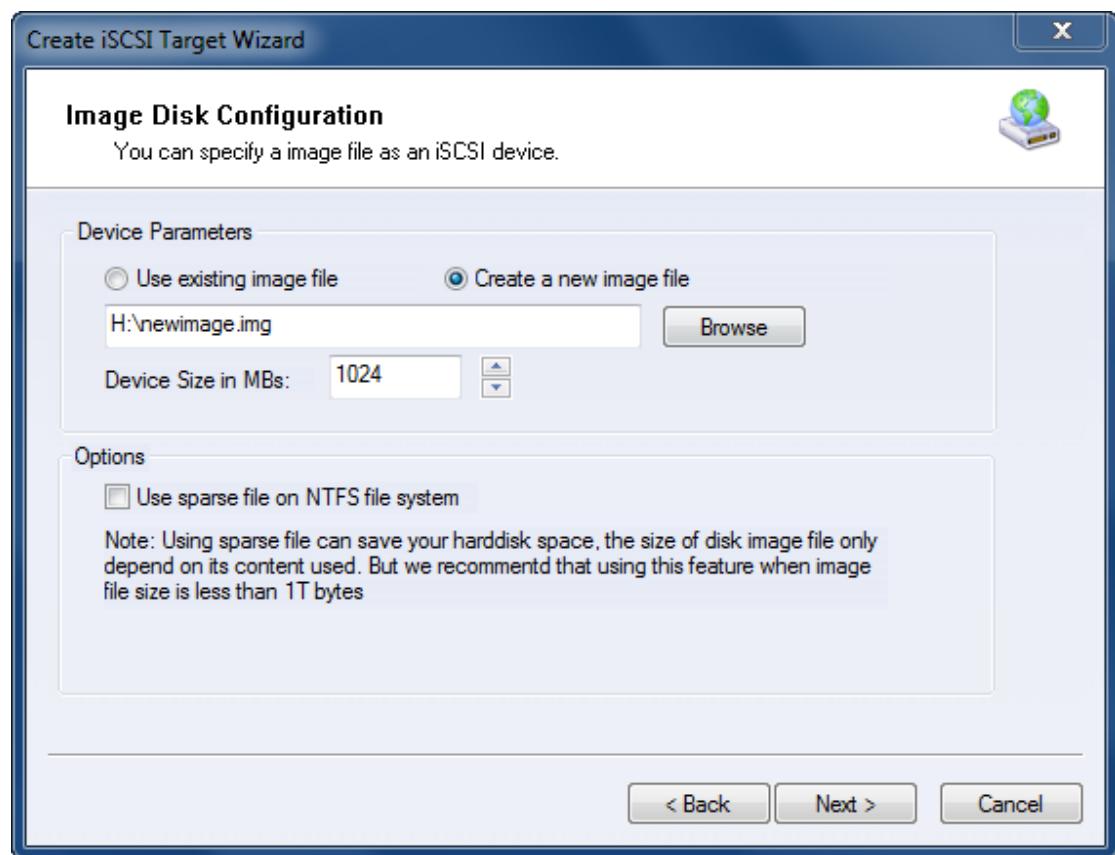
Next >

Cancel

Choose **Standard Image File**.

Press the **Next** button to continue.

Specify image file path and size.



Choose **Create a new image file** to create a new image file or choose **Use existing image file** if already you have one.

Specify image file full path name.

Specify the device size.

If you check **Use sparse file on NTFS file system**, the size of disk image file only depend on its content used, it can save your hard disk space.

Press the **Next** button to continue.

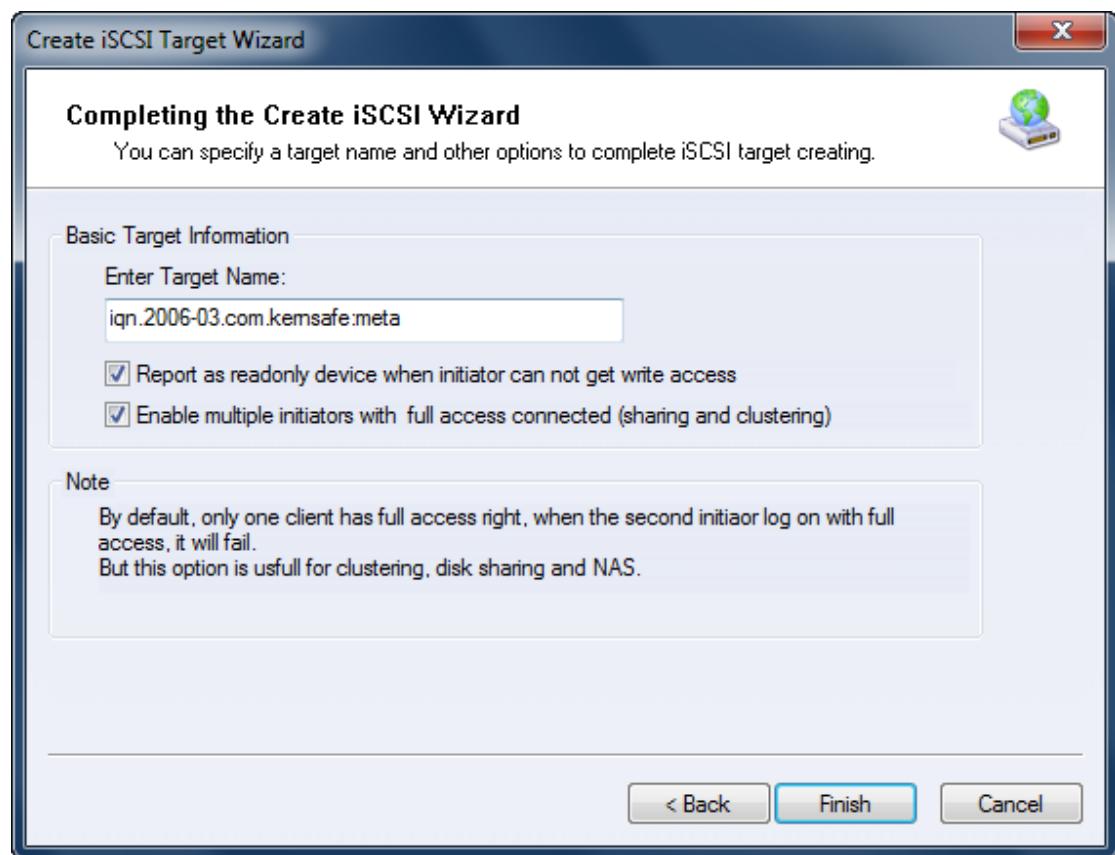
Set authorization mode.



Choose **IP Filter** Authorization.

Press the **Next** button to continue.

Finish creating iSCSI Target.



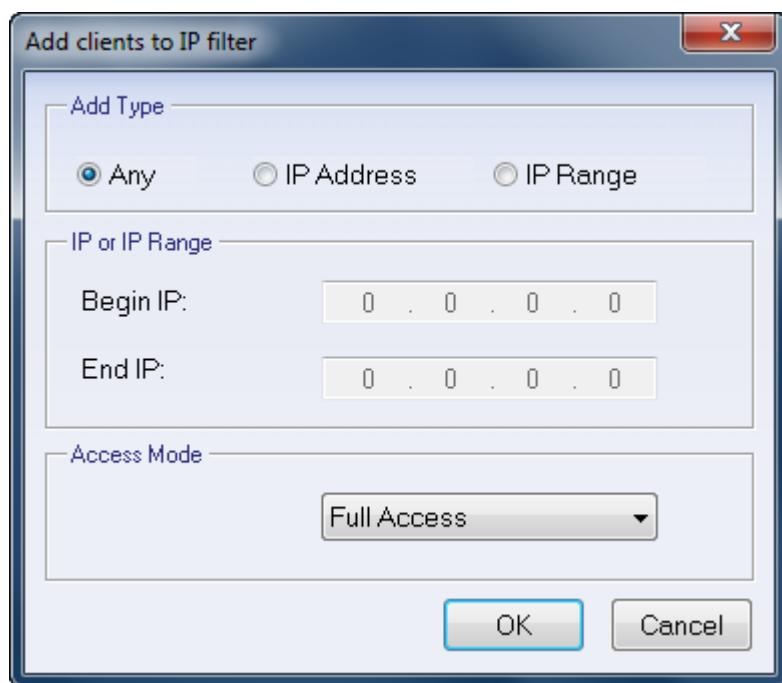
Type a target name in the **Target Name** field, or use the default.

Check "**Enable multiple initiators with full access connected (sharing and clustering)**".

Press the **Finish** button to continue.

Add IP Filters

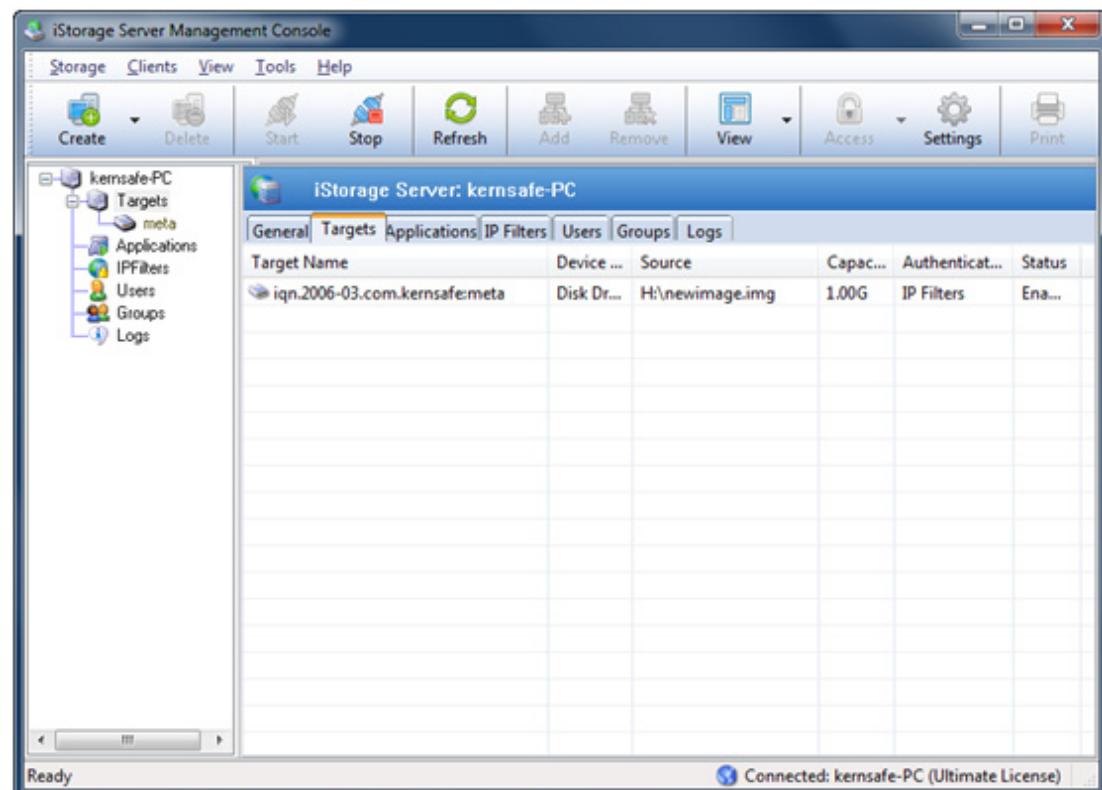
Right click **IP Filters** on the left tree of the main interface, click **New Role** on the pop-up menu.



Check **Any** and select **Full Access** of the access mode.

Press **OK** to finish add IP filters.

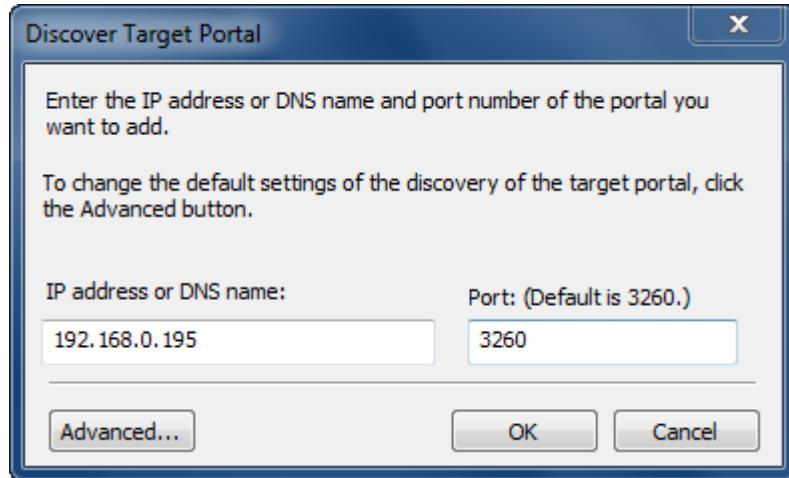
Now, the target is created.



Configuring on First Client as MetaSAN

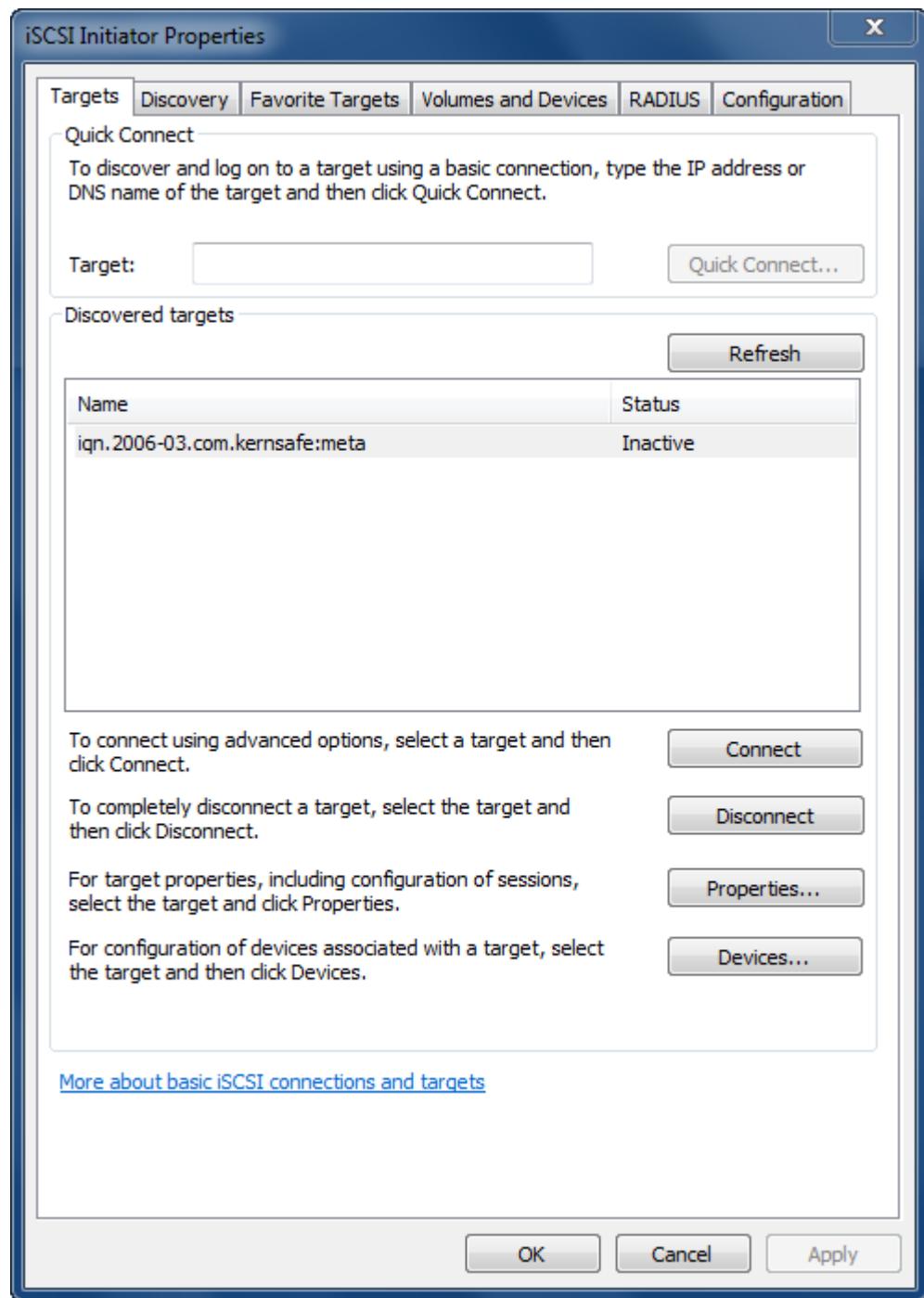
Connecting target

Open **iSCSI Initiator**, click the **Discover Portal...** button on the **Discovery** page, input the IP address of the computer which running iStorage server and the port.

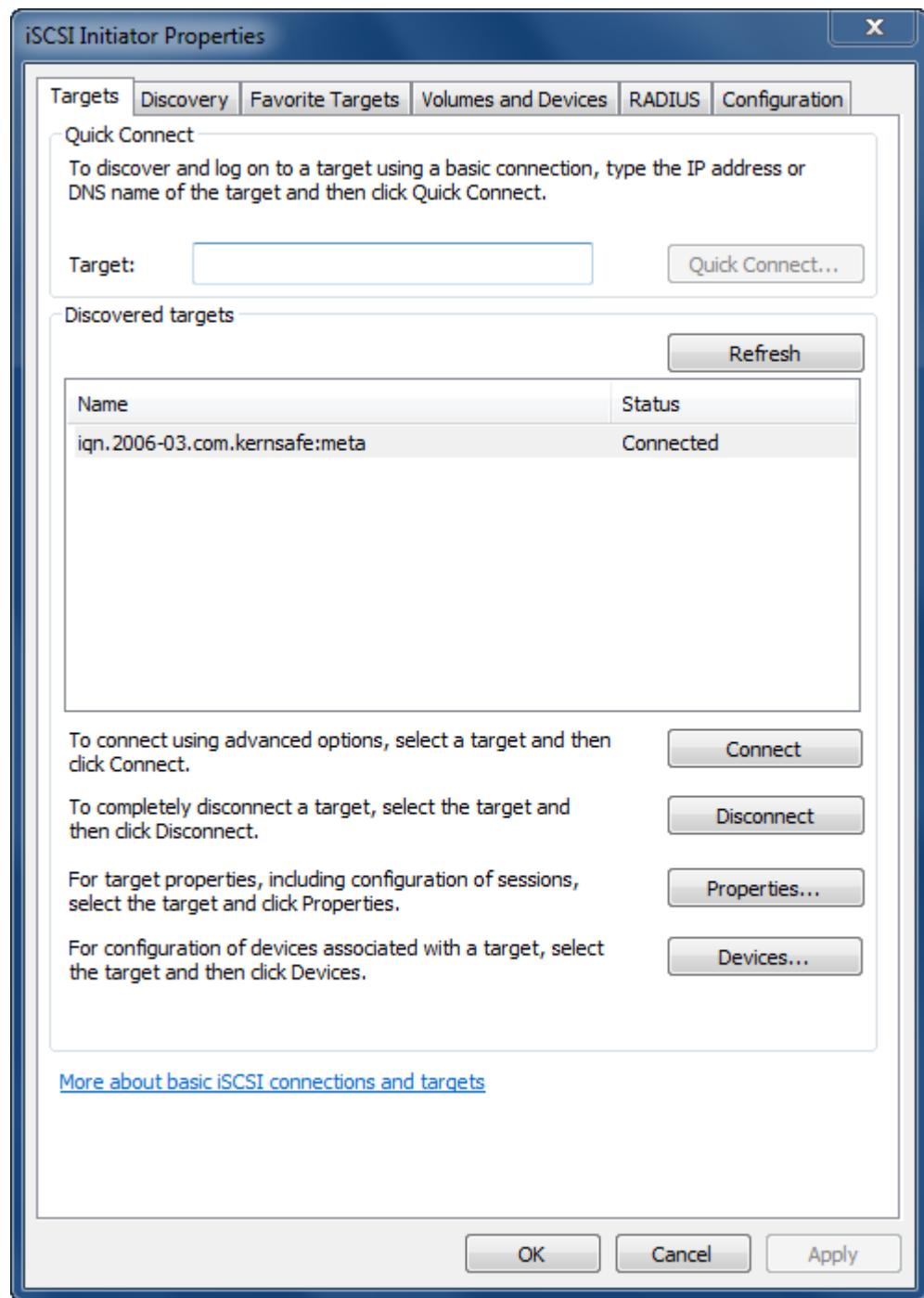


Press **Ok** button to continue.

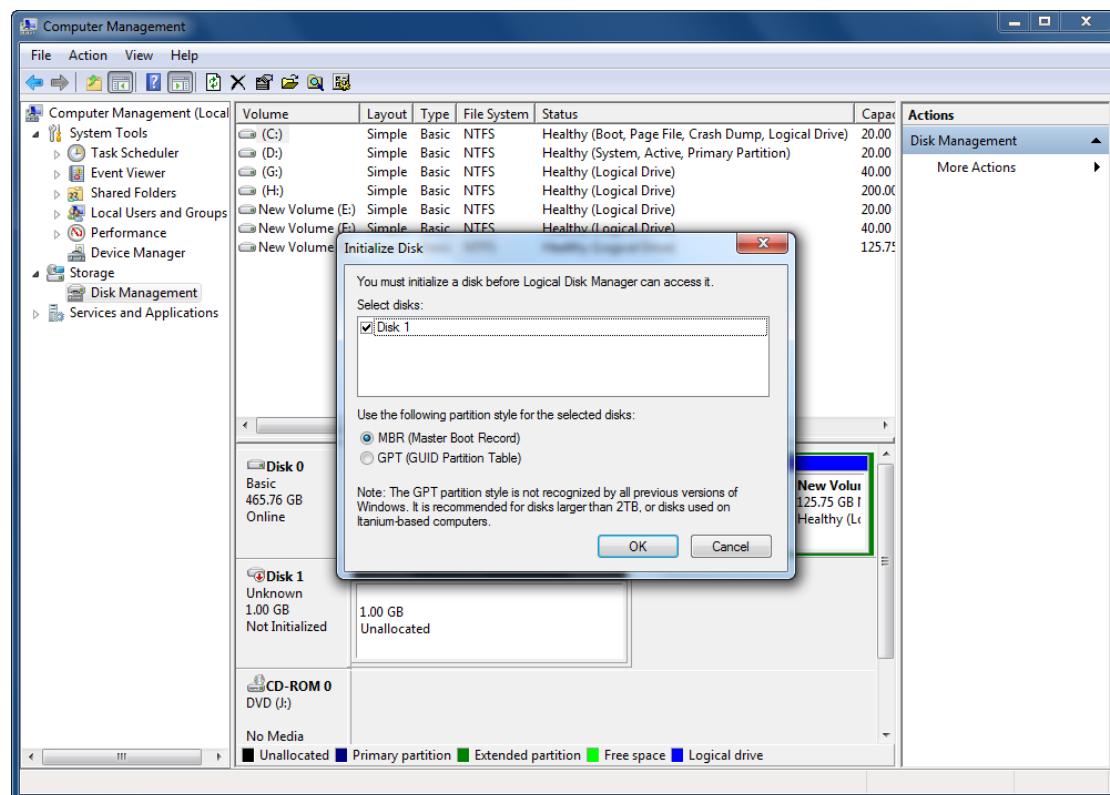
Press the **Refresh** button on the **Targets** page, the target will be shown, select the target you want to connect and click the **Connect** button to log on the target. In the **Connect To Target** window click on **OK** button to connect to the target device.



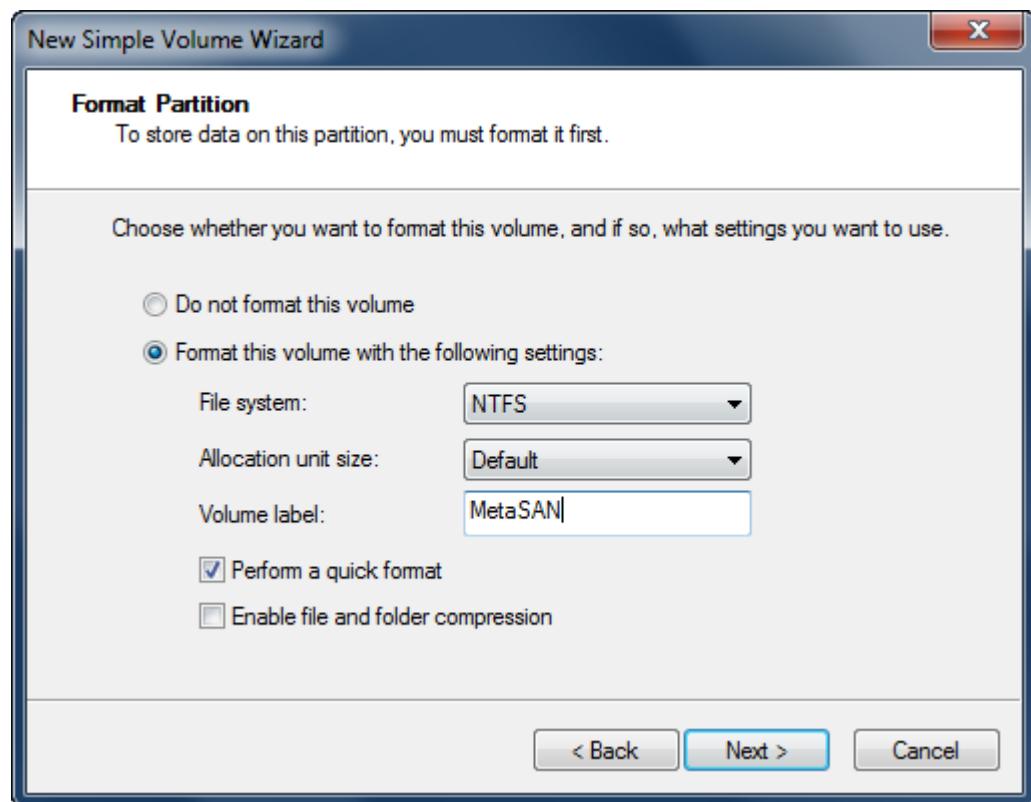
Now, the target is connected.



After the target is connected you have to initialize and format it. Open Computer Management (Start | Right-click My Computer | Manage). Choose the Disk Management option. Window will pop up with the **Disk Initialization** wizard.

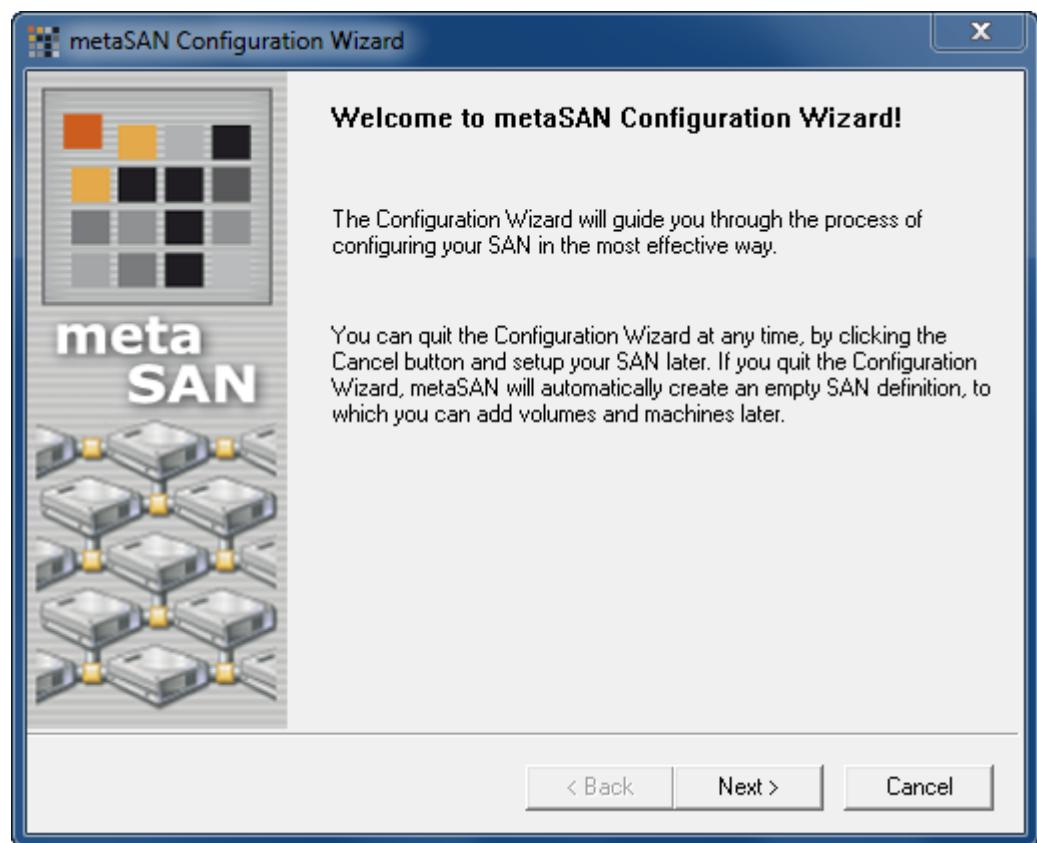


You need to initialize the new drive, create a partition, and format the new volume.



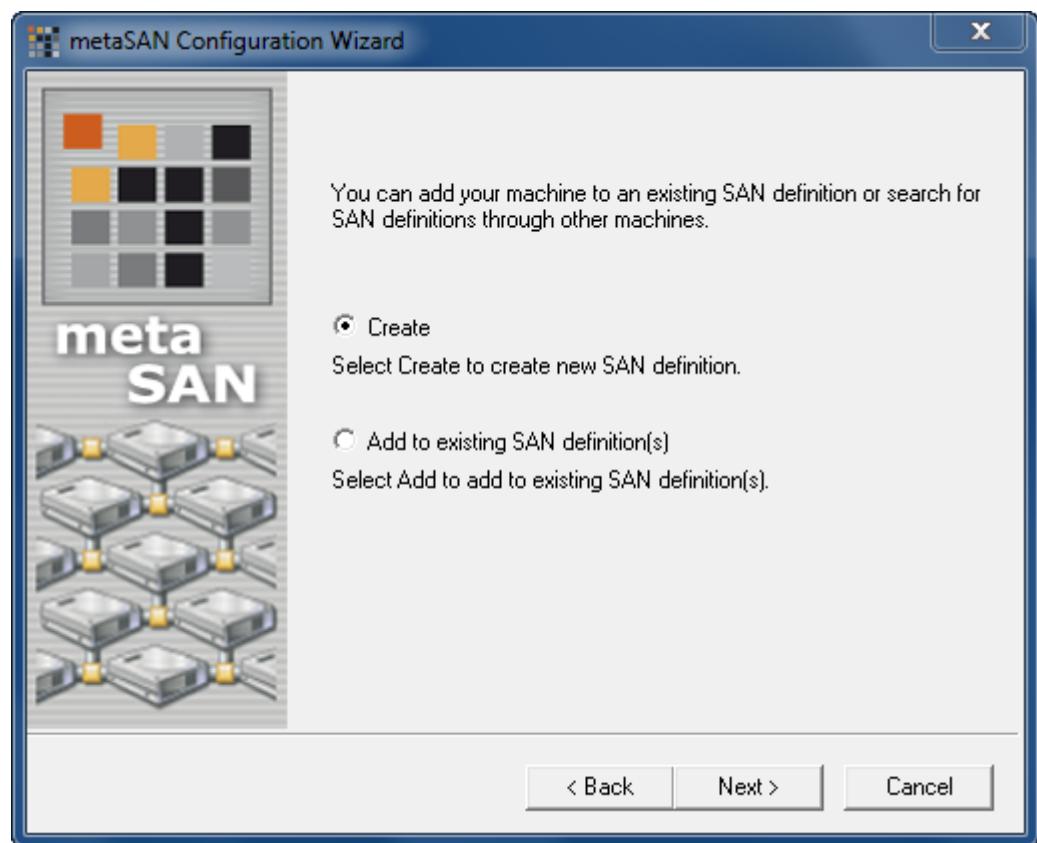
Configuring MetaSAN

Run the MetaSAN installer. Accept the license agreement. After the installation is completed, the **MetaSAN Configuration Wizard** is shown.



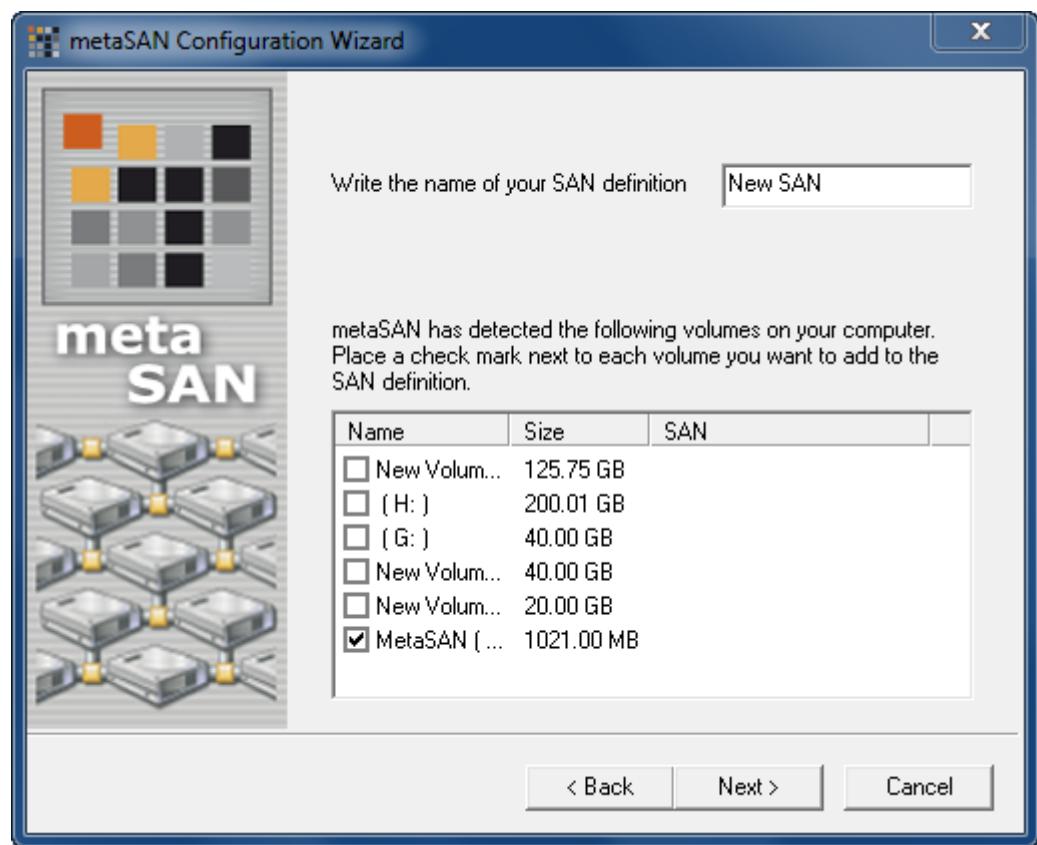
Press the **Next** button to continue.

Select **Create** to create a new SAN definition.



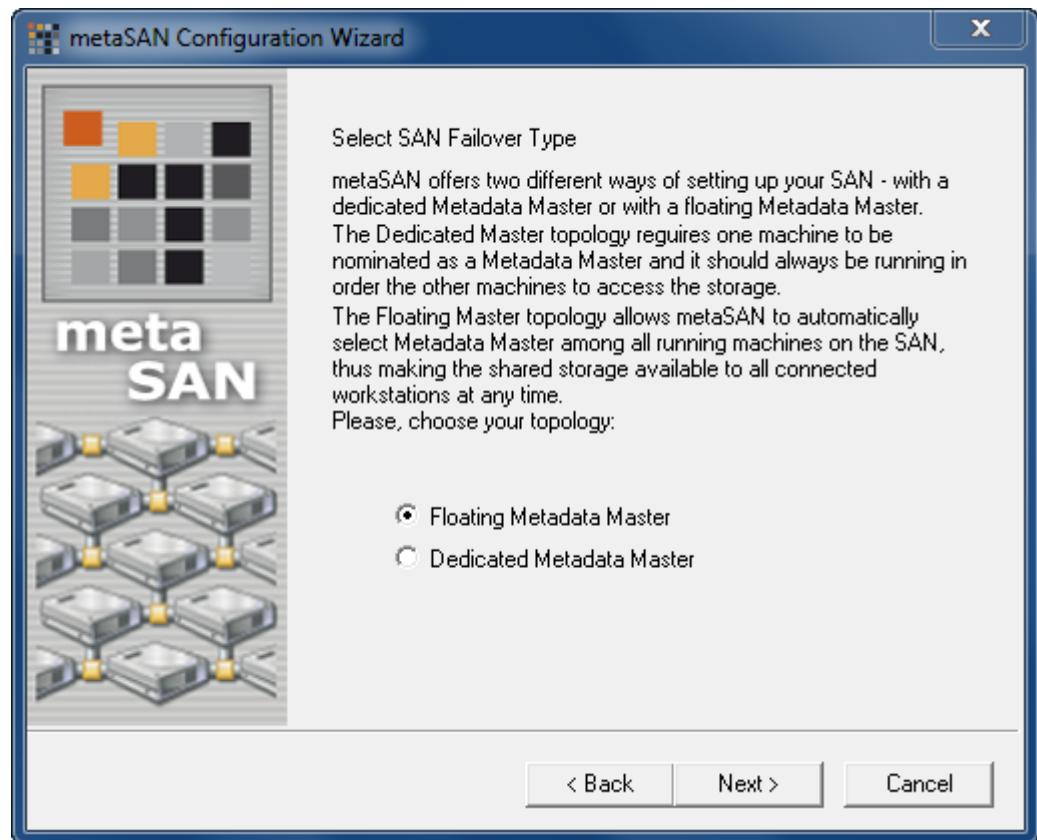
Press the **Next** button to continue.

Input the name of your new SAN definition and select the volume which you want to add to the SAN definition.



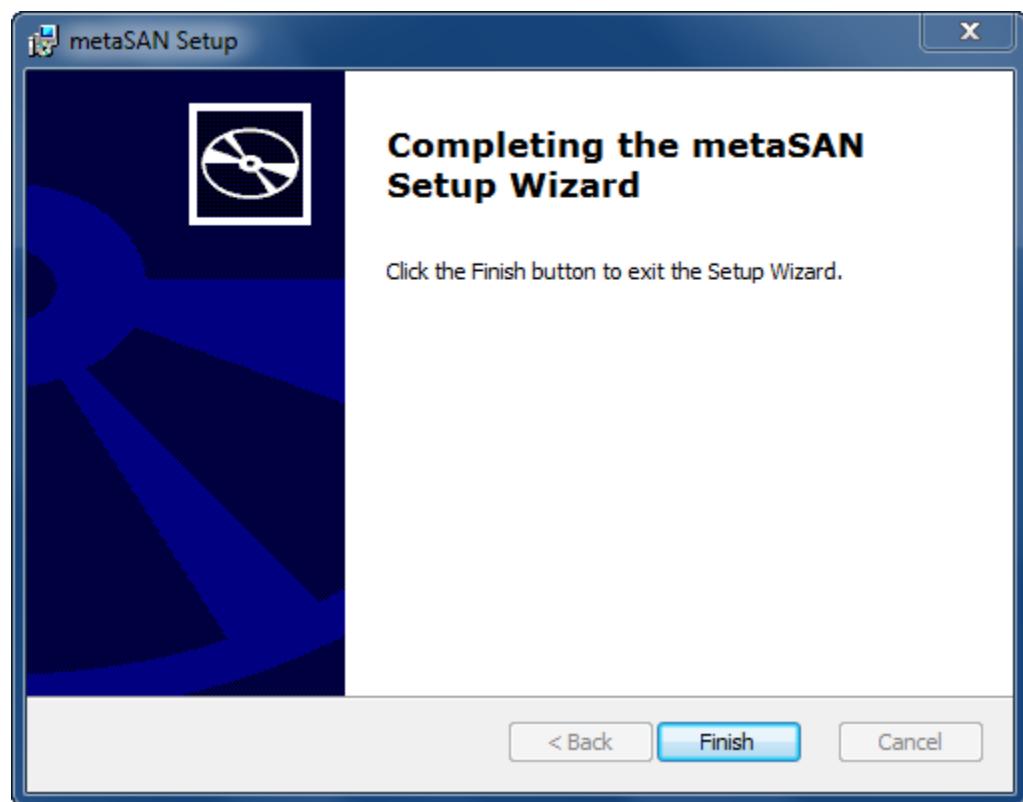
Press the **Next** button to continue.

Select **Floating Metadata Master** option.



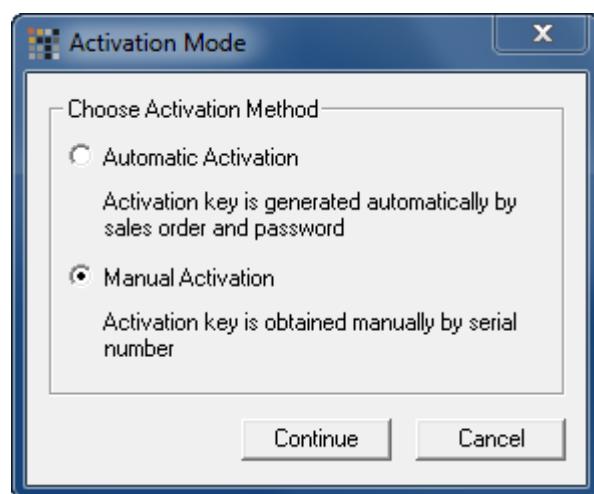
Press the **Next** button to continue.

Now you can specify the time interval, leave it without changing and press the **Next** button.
Wizard will ask you to restart your computer, accept it and press the **Finish** button.



Your computer will be restarted. After reboot, you have to register your version of MetaSAN to gain access to the disk.

Open **Control Panel** and run **MetaSAN**. Press the **Activate MetaSAN...** button on the **About** page. Select **Manual Activation** and press **Continue**.



Enter your activation code in the **MetaSAN registration** window and press **OK**. Now your MetaSAN is activated and the access to the iSCSI drive is granted.

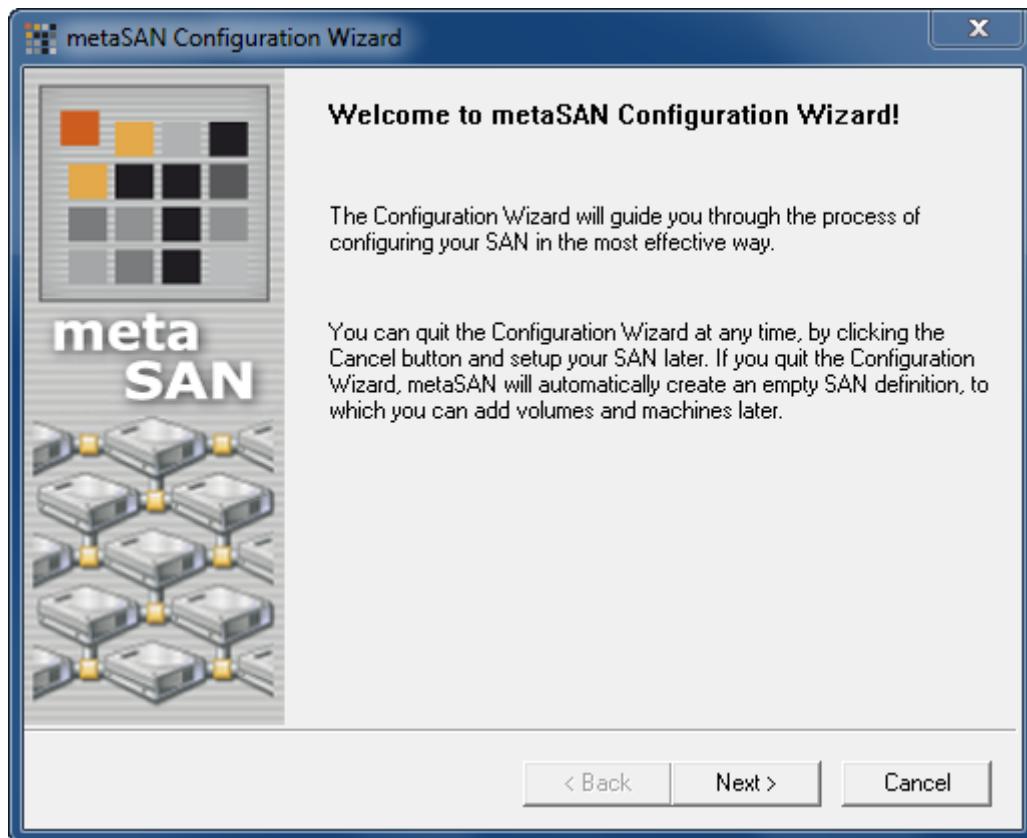
Configuring on the second Client as MetaSAN

Connecting target

Firstly, we have to connect to the iSCSI target. It is the same way as we did on the first client and those two clients must be connect to the same target.

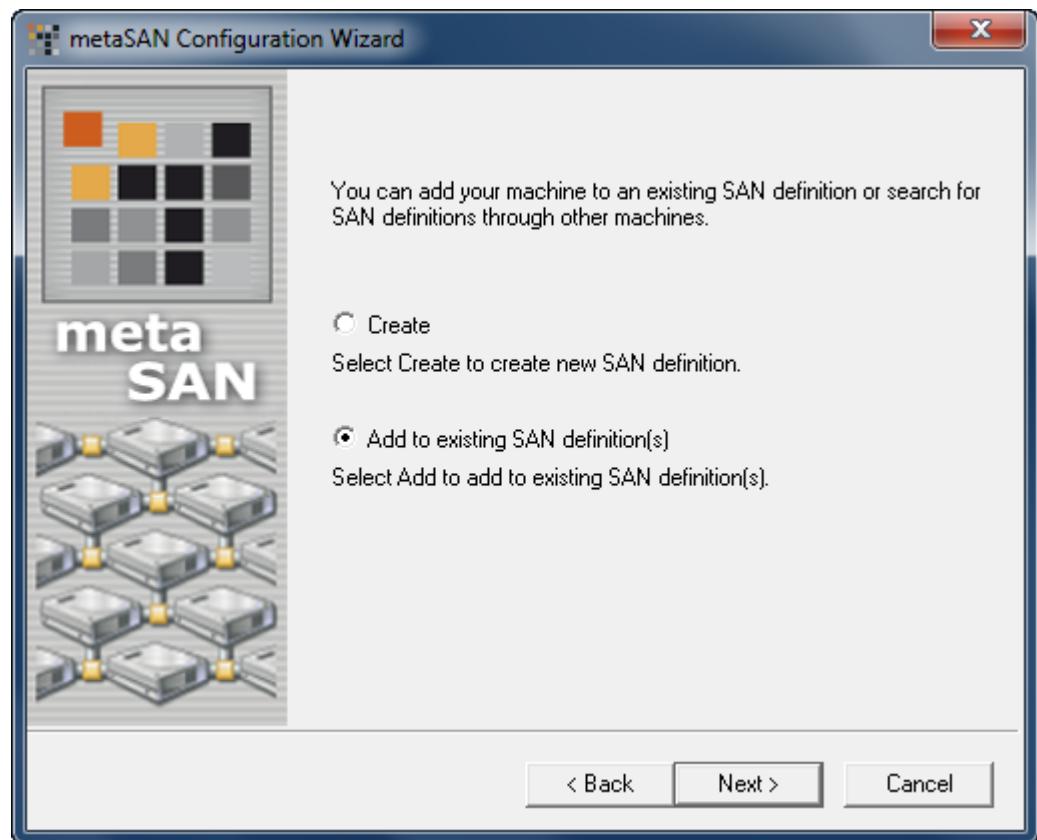
Configuring MetaSAN

Install MetaSAN on the second client.



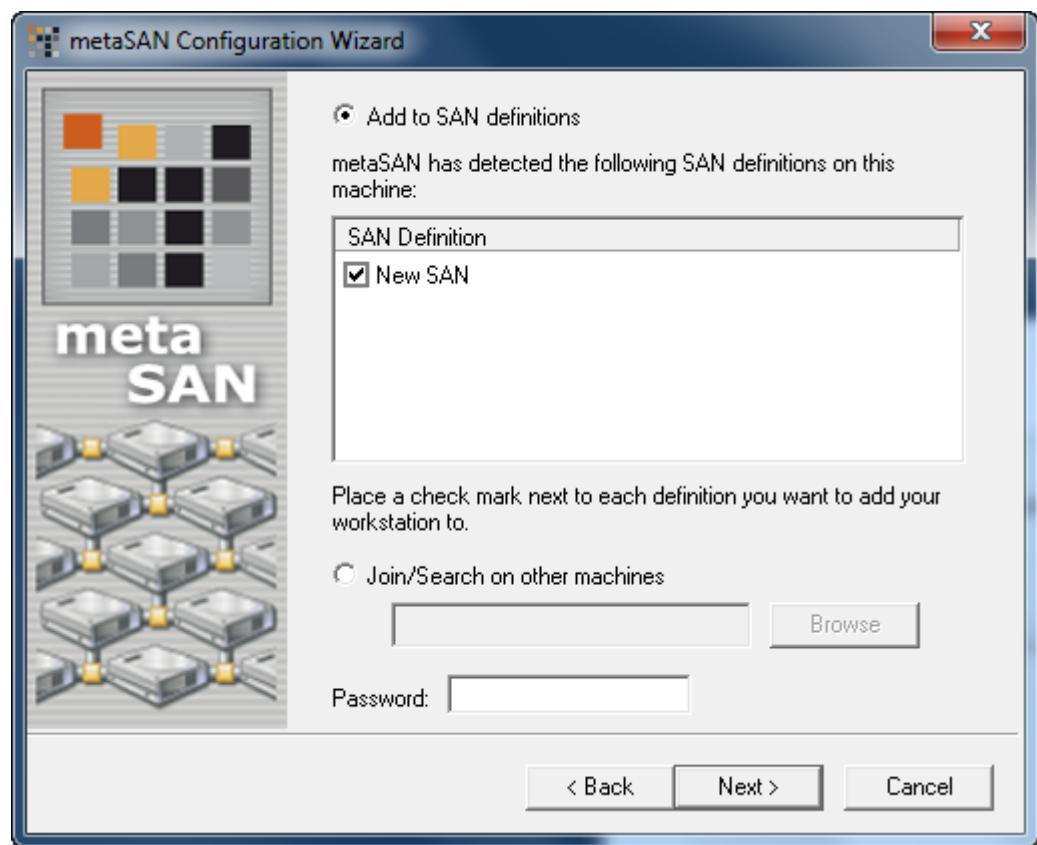
Press the **Next** button to continue.

Choose **Add to existing SAN definition(s)**.



Press the **Next** button to continue.

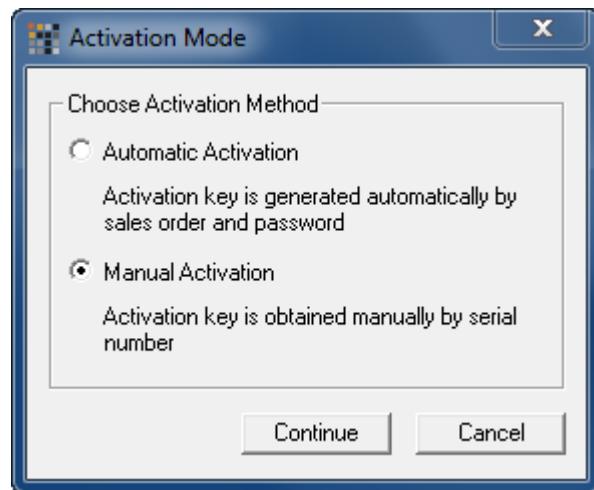
Select **Add to SAN definitions** and check SAN you want to add to.



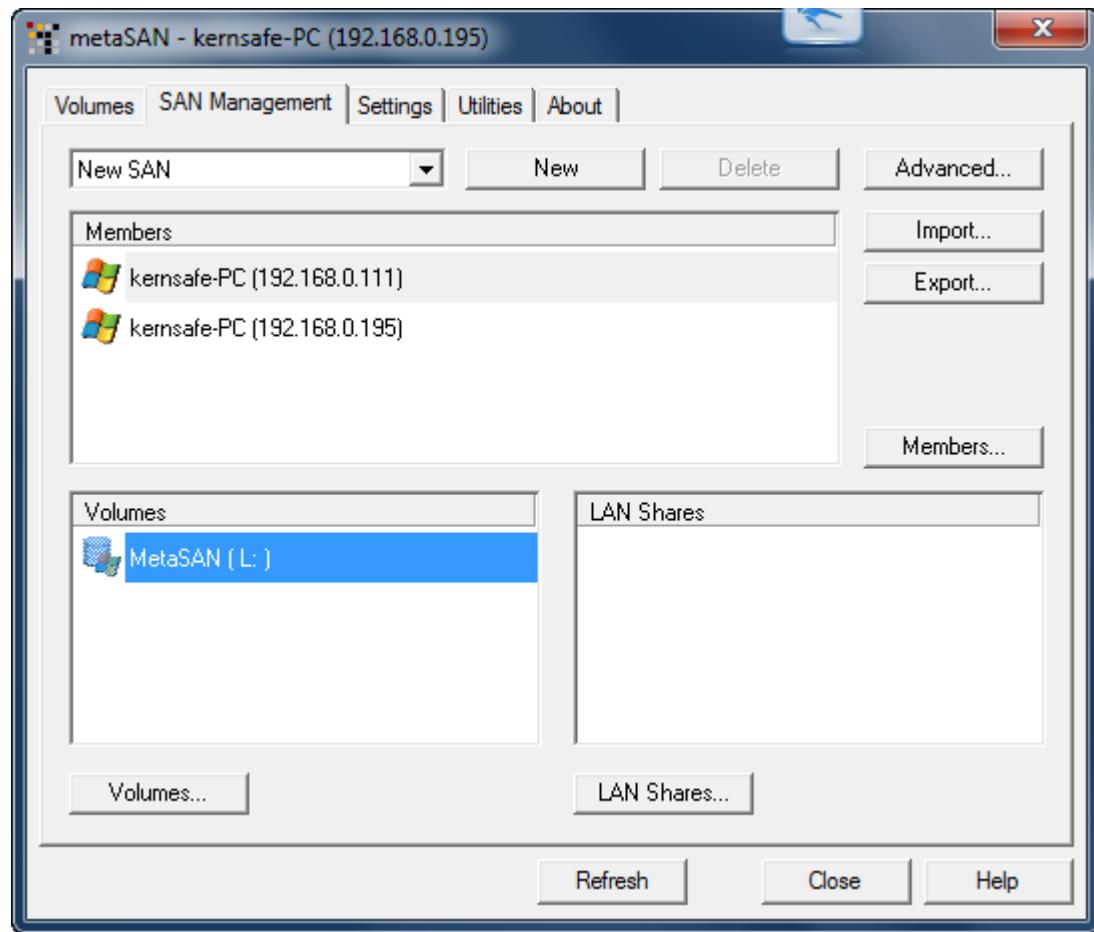
Press the **Next** button to continue.

Your computer will be restarted. After reboot, you have to register your version of MetaSAN to gain access to the disk.

Open the **Control Panel** and run **MetaSAN**. Press the **Activate MetaSAN...** button on the **About** page. Select **Manual Activation** and press **Continue**.



Enter your activation code in the **MetaSAN registration** window and press **OK**. Now your MetaSAN is activated and the access to the iSCSI drive is granted.



Now, you have two PCs with the active connections to the same iSCSI target.

You can also add the third client in the same way as we did with the second client.

Contact

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