Connecting Windows 7 to an iSCSI SAN

by David Davis [Published on 1 Sept. 2009 / Last Updated on 1 Sept. 2009]

How to configure Windows 7 to connect it to an iSCSI SAN.

Introduction

Like my prior articles that demonstrate how to connect Widows 2008 Server and Windows Vista to an iSCSI SAN, this article will cover similar aspects, with a step by step guide on how to set it up and how it can help you.

First off, if you are looking for information on how to create your own FREE iSCSI SAN or to connect other operating systems to an iSCSI SAN, checkout the following articles:

- How to install an open source iSCSI SAN server inside Microsoft Hyper-V (http://searchservervirtualization.techtarget.com/tip/0,289483,sid94_gci1329155_mem1,00.html)
- Download Open OpenFiler (http://www.openfiler.com/community/download)
- How to connect Windows Server 2008 and Windows Vista to an iSCSI Server (http://www.windowsnetworking.com/articles_tutorials/Connect-Windows-Server-2008-Windows-Vista-iSCSI-Server.html)

Note:
This article assumes that you have already have an iSCSI SAN up and running. Besides that, I assume that you (or your SAN Admin) have already created an iSCSI share on that SAN and that the iSCSI volume has not yet been formatted with any OS /Operating system.

So, you have Windows 7 up and running but what do you do if you want to connect it to either the free SAN IiSCSI or OpenFiler from the instructions above. You could even just want to connect it to an existing iSCSI SAN and your storage admin has already created out a LUN for you.

Now that we have some background, let us configure Windows 7 to connect to an iSCSI SAN…

Configuring iSCSI in Windows 7

To get started, you need to run the iSCSI Initiator that is installed by default in Windows 7. You can access it in a couple of different ways.

One option is to access it through the Windows 7 **Control Panel**. Once inside control panel, on the address bar navigation, click on **All Control Panel Items**, then **Administrative Tools**, as seen in Figure 1.

From there, you need to run the **iSCSI Initiator** (also in Figure 1).

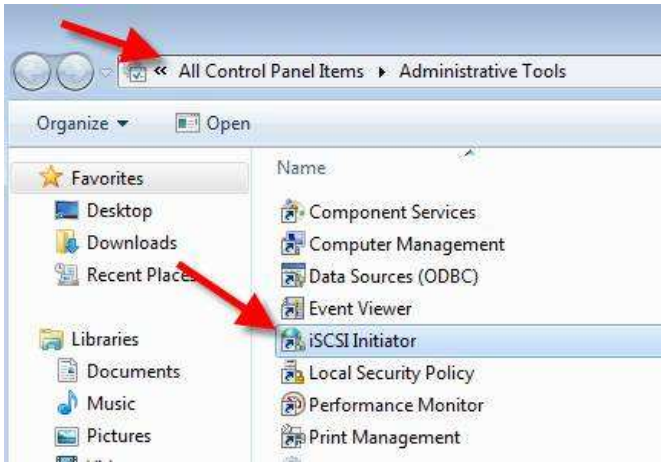

Figure 1: Runningthe iSCSI Initiator from Windows 7 Control Panel / Administrative Tools

The alternative to running the iSCSI Initiator through that path is to execute it by name. All you need to run is **iscsicpl.exe**. As you see in Figure 2, you can do this by going to **Start** and in the blank, enter **iscsicpl.exe.**

Figure 2: Running the iSCSI Control panel from the command line

Either way, you will arrive at the same destination. The **iSCSI Warning** that you see is in Figure 3 and then our real destination, the **iSCSI Initiator Properties** that you will see in Figure 4.

Assuming this is the first time you have attempted to run iSCSI-related application, you should see the warning message in Figure 3. This is just saying that that iSCSI service has not been started and it is asking you if you want to start it. Click **Yes.**

Figure 3: Starting the iSCSI Initiator Service

Finally, we reach the **iSCSI Initiator Properties** that we want to configure, shown in Figure 4.

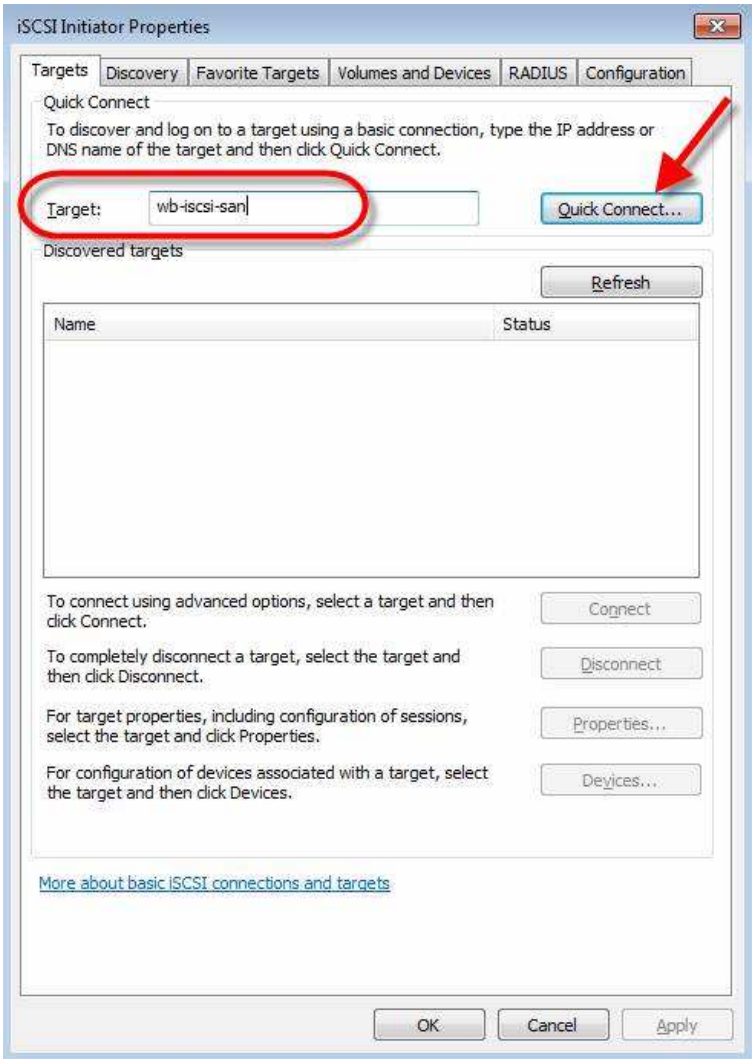

Figure 4: Connecting to an iSCSI server using the iSCSI Initator

Now, what you want to do is to connect the iSCSI initiator to the iSCSI target. In our case, that target is the OpenFiler virtual machine, running in our vSphere virtual infrastructure.

Enter the domain name or IP address for your iSCSI target / the iSCSI target. In our case, it is the circled **wb-iscsi-san.**

Next, in Figure 5, you will be asked which of the discovered targets you want to connect to. In our case, we connected to the **WB-iSCSI-WINDOWS** target (which we create just for the Windows Serves).

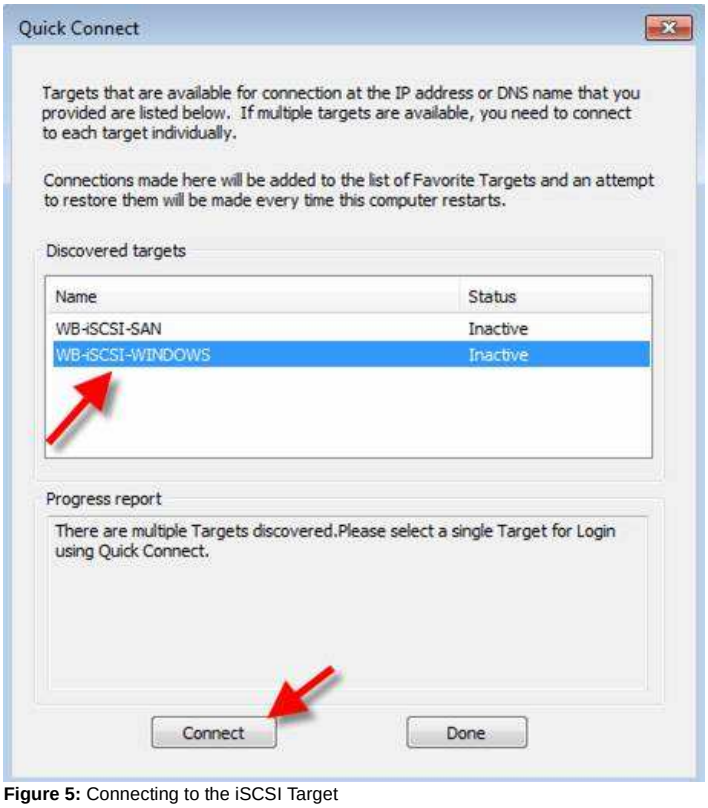

Figure 5: Connecting to the iSCSI Target

Once you select it and click **Connect**, your iSCSI SAN volume will be added to Windows so you can click **DONE.**

You should see the connections that you requested in the iSCSI Initiator (as you see in Figure 6).

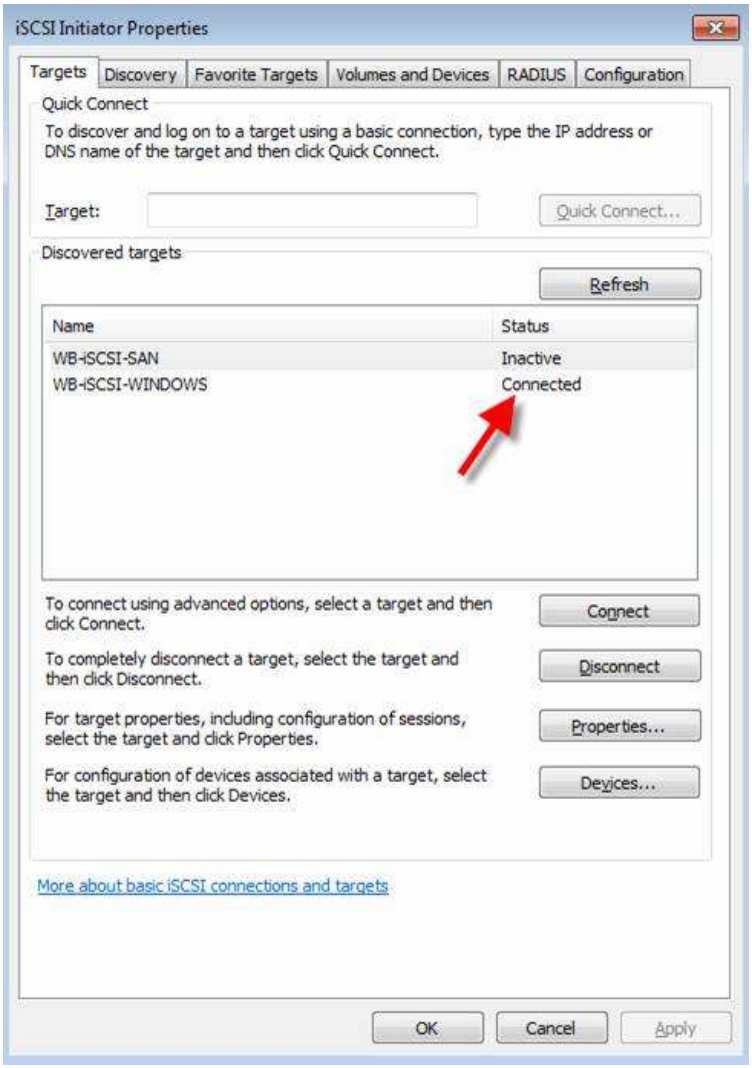

Figure 6: Successfully Connected to Window iSCSI SAN

Now, for reliability of the iSCSI volume, you should go into the **Volumes and Devices** tab and click **Auto Configure.** This will make the new iSCSI volume more “resilient”.

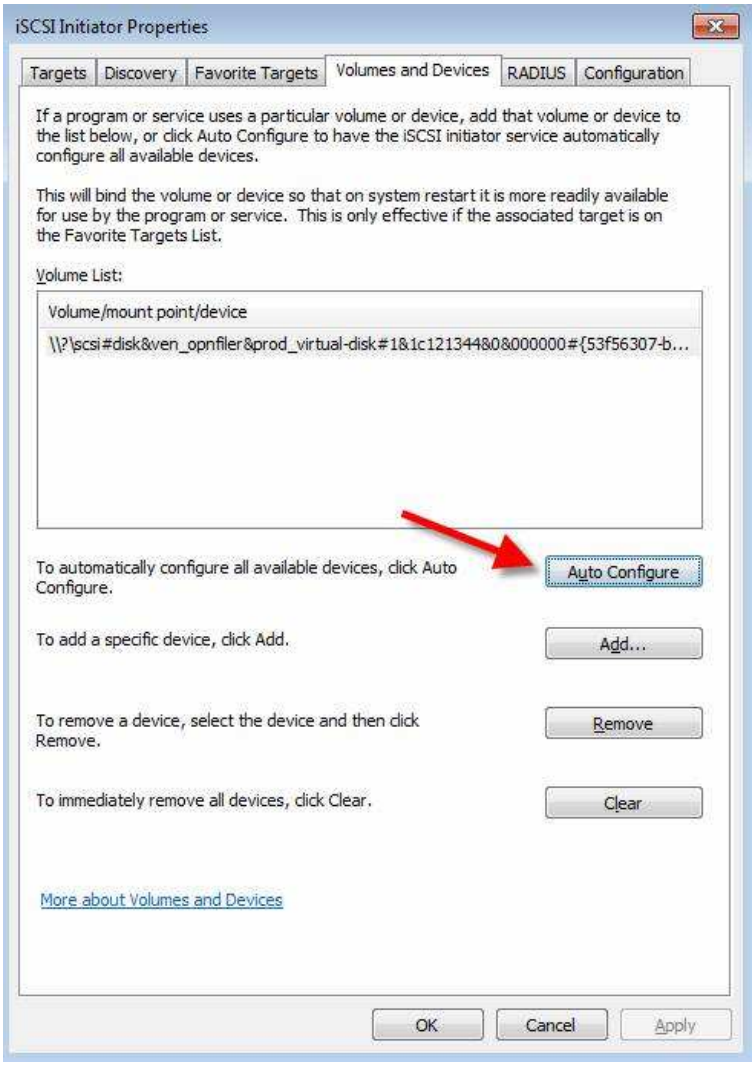

Figure 7: Connecting the iSCSI Device to the server

Then, **OK**, to close the iSCSI Initiator Properties.

Now, go into **Computer Management** and click on **Disk Management.**

Assuming this is the first time that any iSCSI Initiator (the Windows PC) you should see that a new disk has been found. You will be told that you must initialize the new disk before you can use it, as you see in Figure 8.

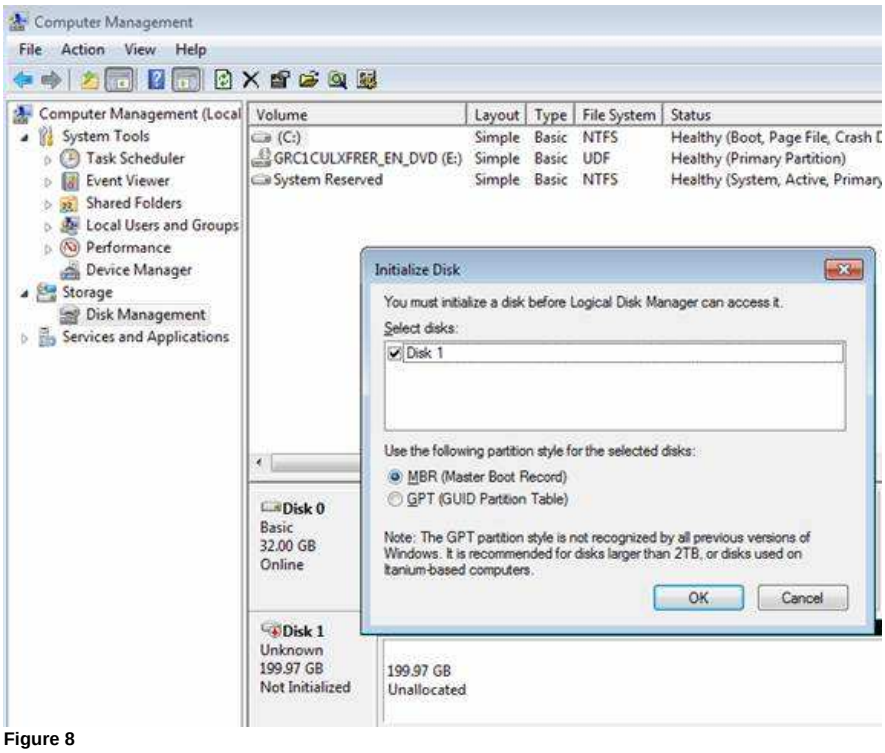

Figure 8

Click **OK** to initialize the newly found disk.

Now, notice the new disk in Storage Manager (shown as **Disk 1** but it could be a different number on your system).

In Figure 9, below you can see that the disk is now **Online** but it is **Unallocated**.

Figure 9: New Unallocated Disk

Now what you need to do is to click on the unallocated disk and click **New Simple Volume**, as you can see in Figure 10, below.

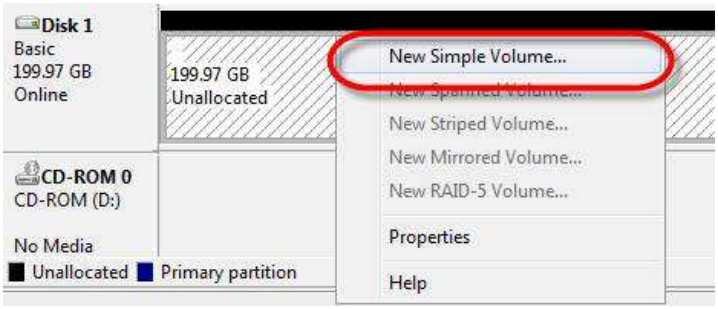

Figure 10: Creating a new simple volume

This brings up the **New Simple Volume Wizard**, as you see in Figure 11.

Figure 11: Simple Volume Wizard

In the **Simple Volume Wizard** you define how much space will be allocated of that volume and the drive letter that the new volume will have.

In Figure 12, I maxed out the space of the volume with all that the volume offered, 204765 MB or about 200GB.

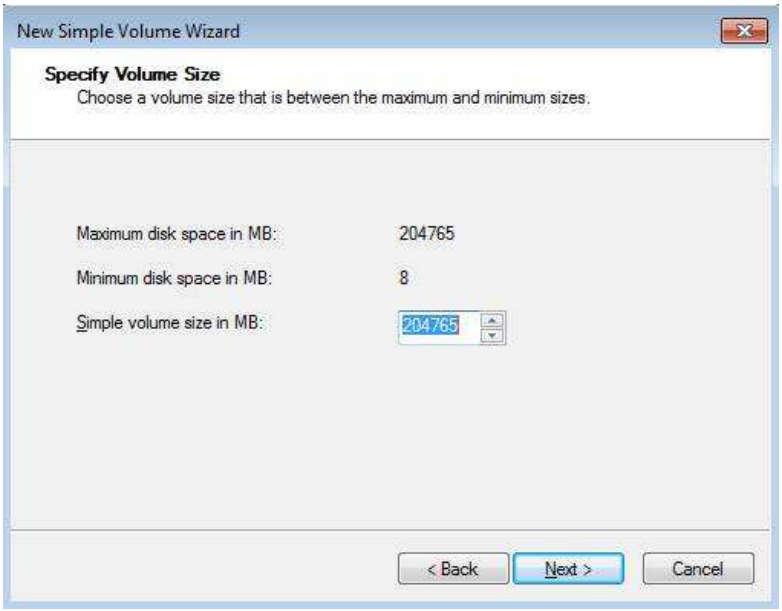

Figure 12: Specify Size of the new Simple Volume

Now, assign a drive letter, in Figure 13.

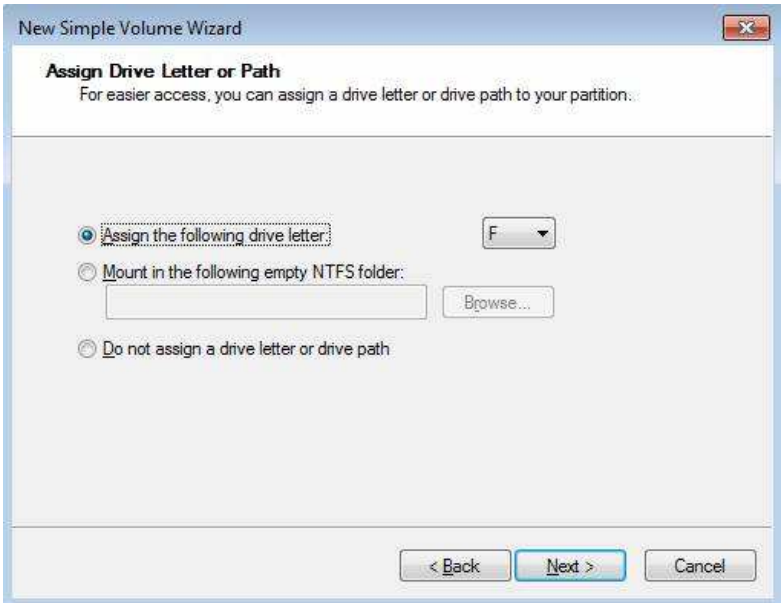

Figure 13: Assigning a Drive Letter

And format it with NTFS.

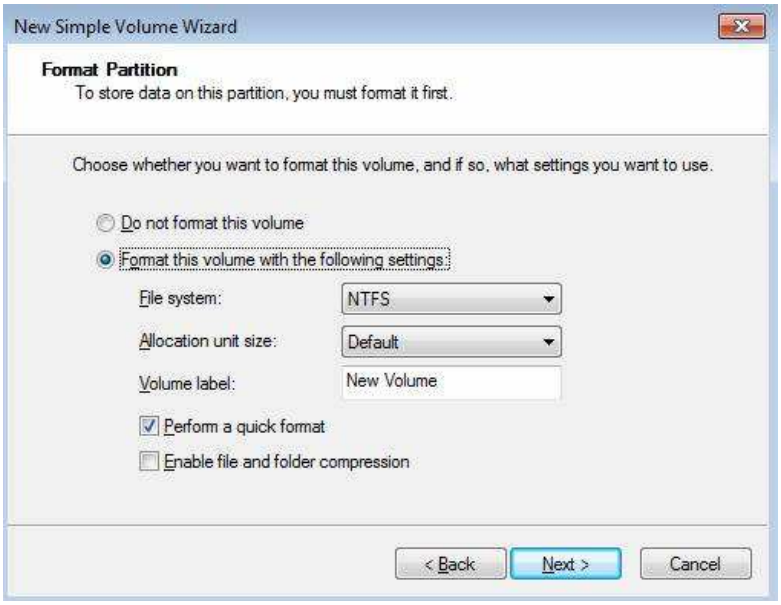

Figure 14: Formatting the new simple volume

At this point, you will see the finalization screen, asking you to confirm what you are about to do. If you have configured everything correctly, click **Finish**.

You will see that the disk is being formatted and then you should see a new **Healthy (Primary Partition)** that is formatted with the NTFS filesystem (as you see in Figure 15), below.

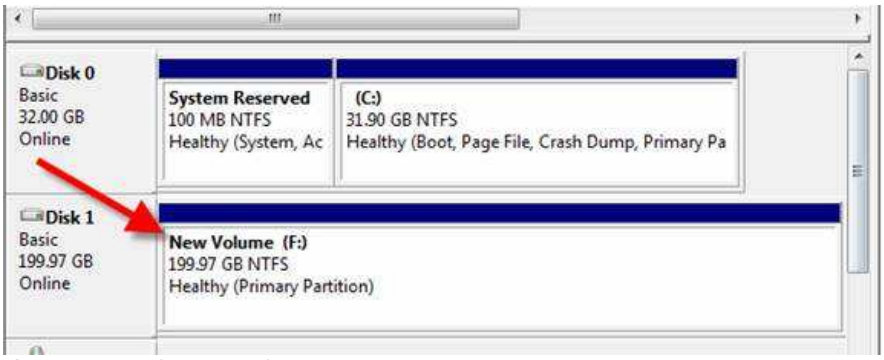

Figure 15: New Volume Created

Now that the new volume is created, let us go t o the new volume inside **My Computer.**

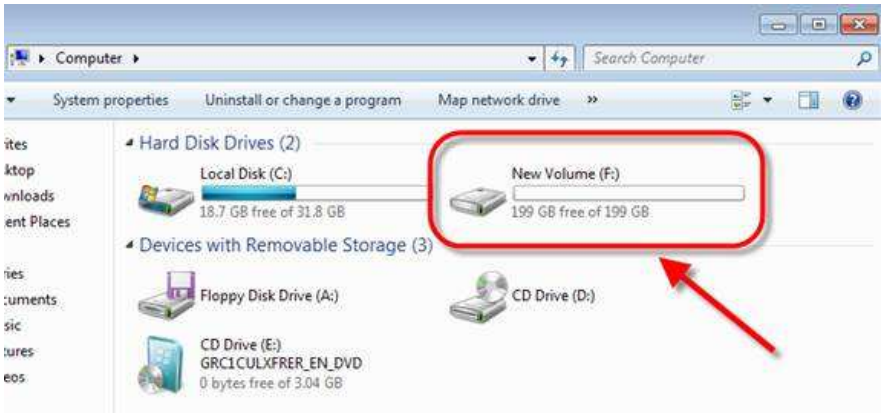

Figure 16: My Computer showing the new volume

With that, we are done!

We successfully connected Windows 7 to an iSCSI SAN. Specifically, we connected it to a free OpenFiler SAN! So, with all the benefits that a SAN provides, Windows 7 (and all the other Windows devices that can now connect to the SAN), you will be able to get a lot more done!

See Also

- Configuring iSCSI Storage (Part 1) (http://www.windowsnetworking.com/articles-tutorials/windows-server-2012/configuring-iscsi-storage-part1.html)
- How to connect Windows Server 2008 and Windows Vista to an iSCSI Server (http://www.windowsnetworking.com/articles-tutorials/windows-server-2008/Connect-Windows-Server-2008-Windows-Vista-iSCSI-Server.html)
- Configuring iSCSI Storage (Part 3) (http://www.windowsnetworking.com/articles-tutorials/windows-server-2012/configuring-iscsi-storage-part3.html)
- Configuring iSCSI Storage (Part 4) (http://www.windowsnetworking.com/articles-tutorials/windows-server-2012/configuring-iscsi-storage-part4.html)
- Configuring iSCSI Storage (Part 2) (http://www.windowsnetworking.com/articles-tutorials/windows-server-2012/configuring-iscsi-storage-part2.html)
- Options for creating a software-based Windows iSCSI Server (http://www.windowsnetworking.com/articles-tutorials/network-protocols/Options-creating-software-based-Windows-iSCSI-Server.html)
- Deploying iSCSI Storage Solutions on the Microsoft Windows Platform (http://www.windowsnetworking.com/blogs/wnadmin/news/deploying-iscsi-storage-solutions-on-the-microsoft-windows-platform-347.html)
- SANDeploy Server (http://www.windowsnetworking.com/software/Network-Mapping/SANDeploy-Server.html)
- HP Simplifies Virtualized Infrastructures with Industry-first Storage Capabilities (http://www.windowsnetworking.com/blogs/wnadmin/news/hp-simplifies-virtualized-infrastructures-with-industry-first-storage-capabilities-517.html)
- How To Configure Cluster Disks In Server Core? (http://www.windowsnetworking.com/kbase/WindowsTips/WindowsServer2008/AdminTips/Admin/HowToConfigureClusterDisksInServerCore.html)

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