



# ISCSI Host Setup Guide – Windows 2008R2 and 2012

User Guide

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## Support

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## TABLE OF CONTENTS

2

<b>1</b>	<b>Introduction</b>	<b>4</b>
<b>2</b>	<b>Required Software</b>	<b>4</b>
<b>3</b>	<b>Mounting Process</b>	<b>6</b>
<b>4</b>	<b>Verification</b>	<b>11</b>

### 3 Introduction

This guide is used in order to configure a Windows 2008R2 or Windows 2012 host for iSCSI using Telstra Virtual Storage (TVS). This guide covers the prerequisites required to successfully connect to TVS LUNs, leveraging the full Multi-Path Input/Output (MPIO) capability to ensure the correct traffic paths are used.

This guide assumes correct configuration of your iSCSI LUN(s) on TVS has been completed.

NOTE: The following guide uses screen shots from Windows 2008R2, however the differences between 2008R2 and 2012 are minor.

### 4 Required Software

The following is a list of required software:

Vendor	Software
Netapp	Netapp DSM
Microsoft	MPIO Feature
Microsoft	Hotfixes (specified below)

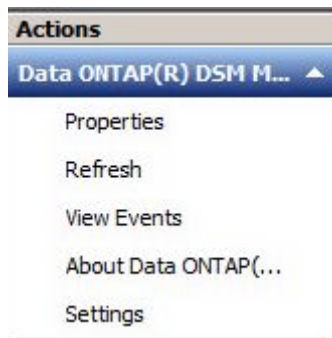
In order to successfully map LUNs created on TVS, it is recommended that Netapp Device-specific module (DSM) is installed on Windows hosts. This will help set the required variables on Windows that intergrate with Netapp LUNs and intergrates with the Microsoft MPIO drivers. In order to install Netapp DSM, you must ensure the following hotfixes are applied to your server:



These hotfixes are available both from native Windows Update, or manually via individual downloads from Microsoft.

When installing DSM, you will be prompted for a license key. This license key is available from [telstracloud.netapp.com](http://telstracloud.netapp.com).

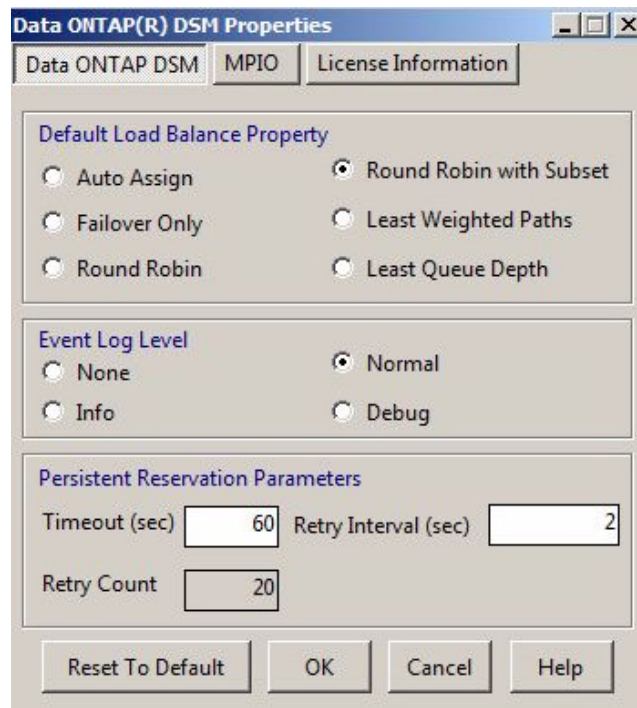
Once Netapp DSM is installed, navigate to Start->Computer Management. Storage-> Data ONTAP® DSM Management. Click on Properties.



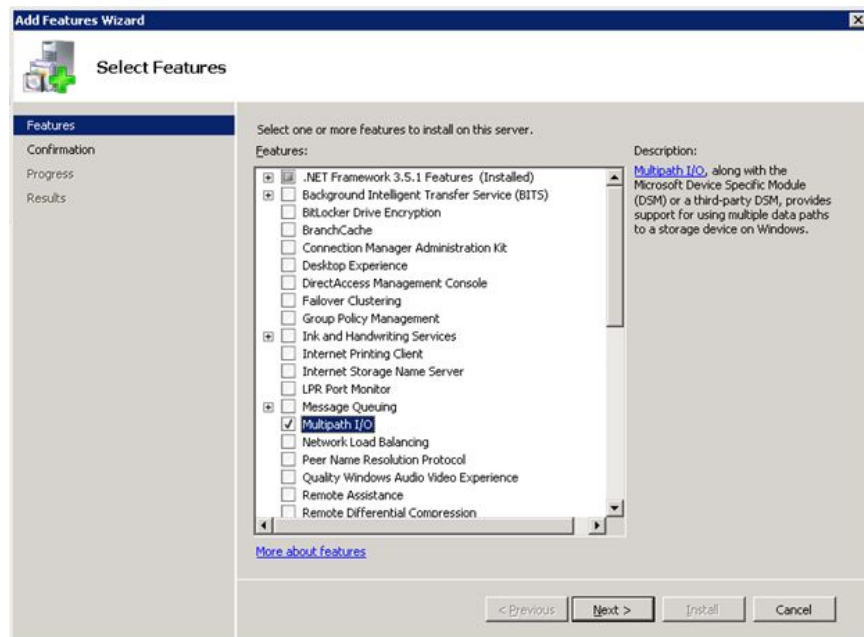
1.

2. By default, Least Queue Depth is selected. Change the selection to "Round Robin with Subset".

3.



The Microsoft MPIO feature is required to be enabled through Server Manager.



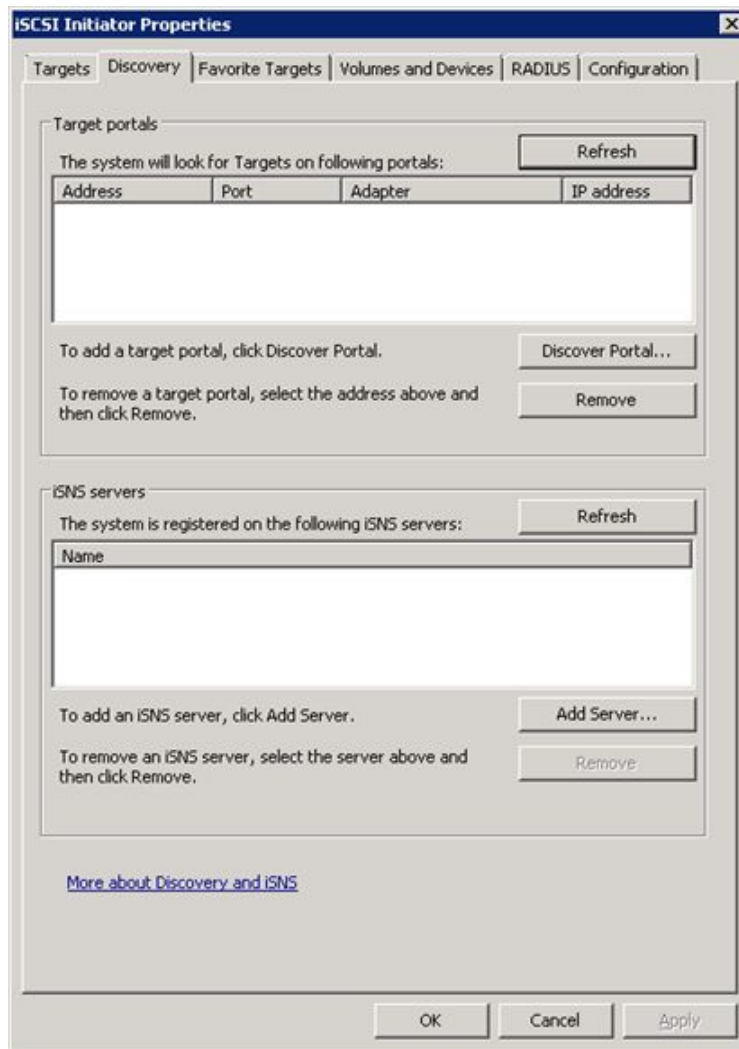
## 5 Mounting Process

1. Configure the iSCSI Initiator on the client.

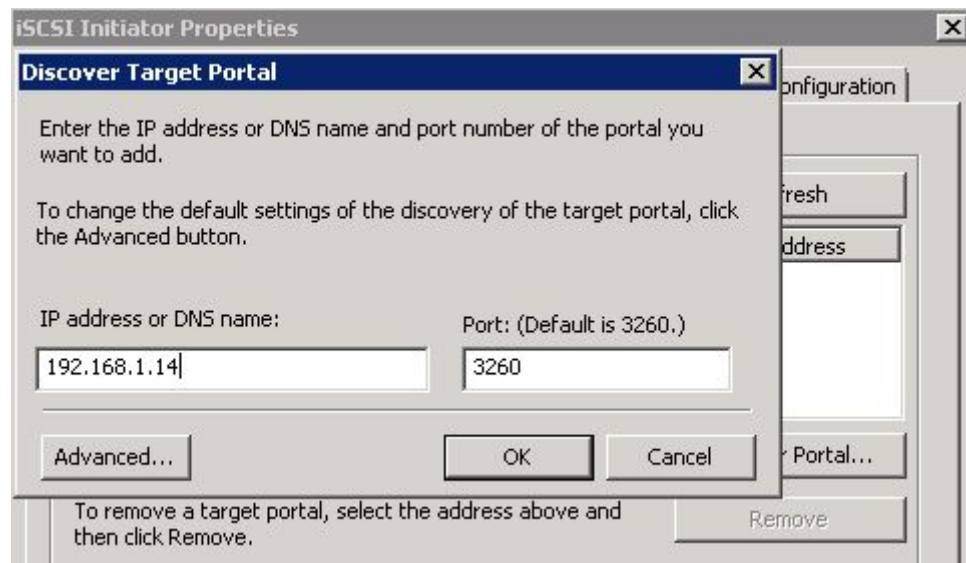
**Note:** You will get a prompt when you start the iSCSI Initiator for the first time, click **Yes**.



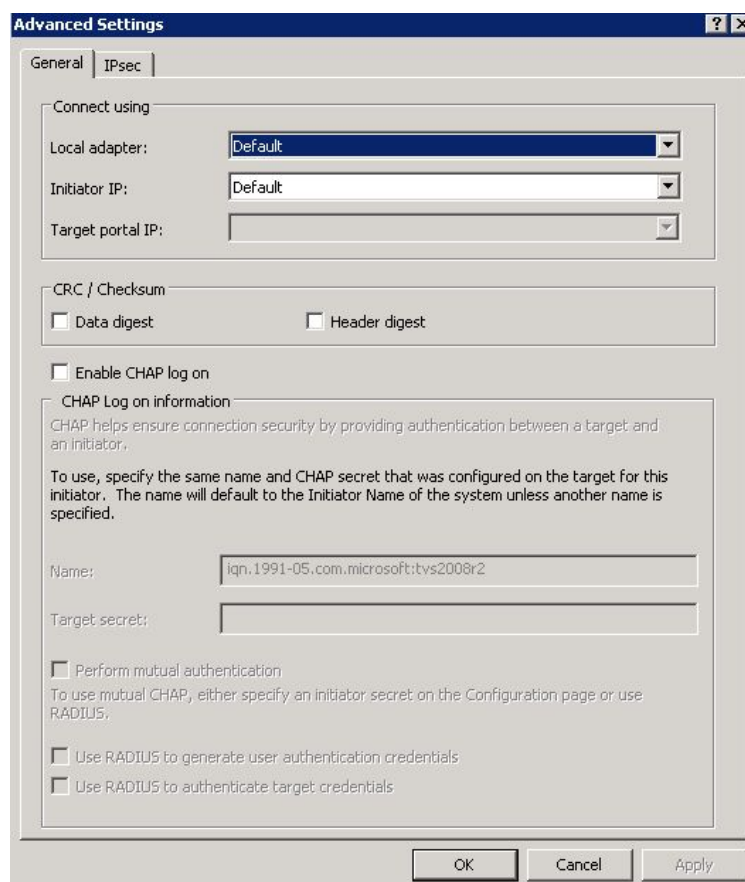
2. Click **Start>Run**. Type the `iscsicpl` command to open the iSCSI software initiator configuration window.



3. Click **Discover Portal**. Add both the IP addresses one after the other, as shown below.



4. Click **Advanced...** and configure the information in the **General** tab. Make sure the Local Adapter and the Initiator IP are selected appropriately.

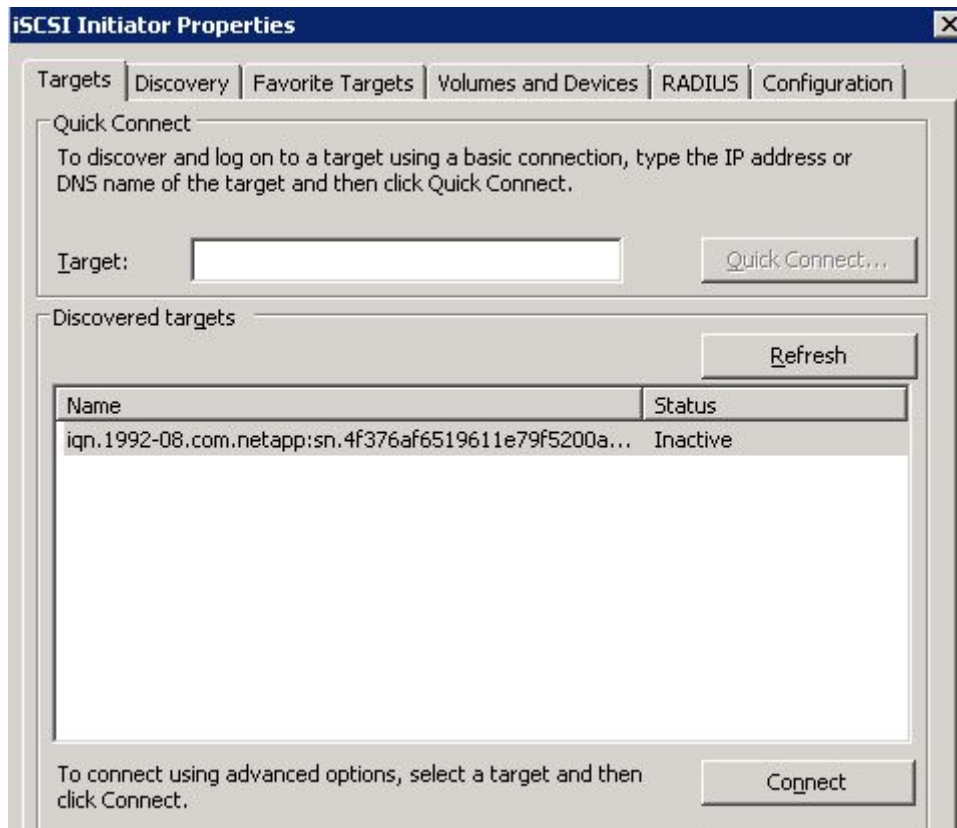


5. Click **Start>Run**. Type the `iscsicpl` command to open the iSCSI software initiator configuration window. Click on the **Targets** tab.

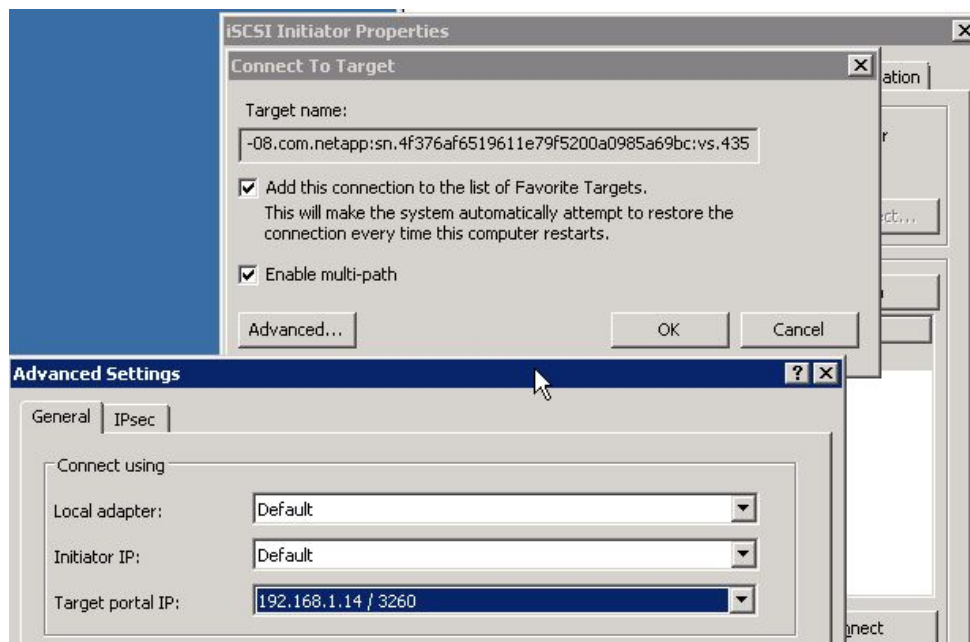


You will find the target status is Inactive.

6. Click **Connect**. Select **Enable multi-path**.

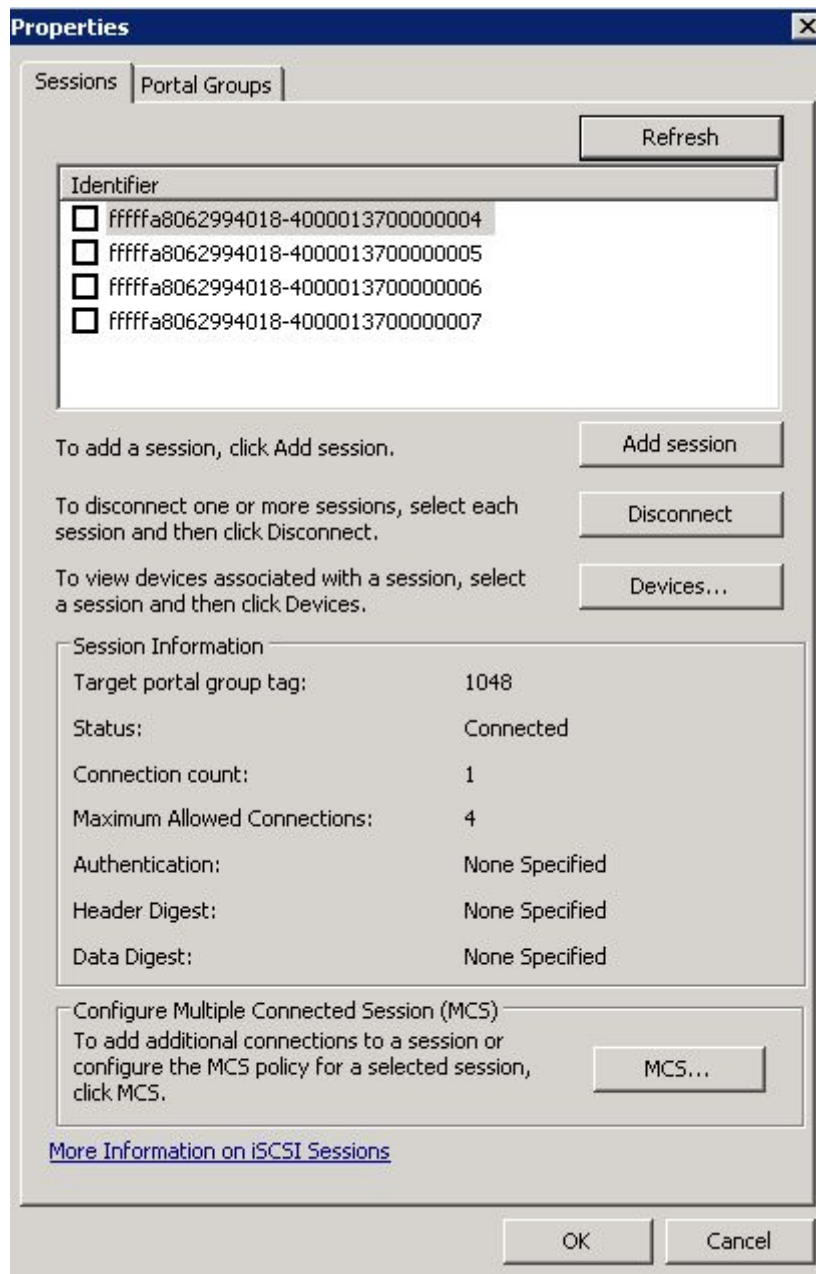


7. Click **Advanced...** in the **General** tab. Select the IP address for the first path from the list in the **Target portal** field.

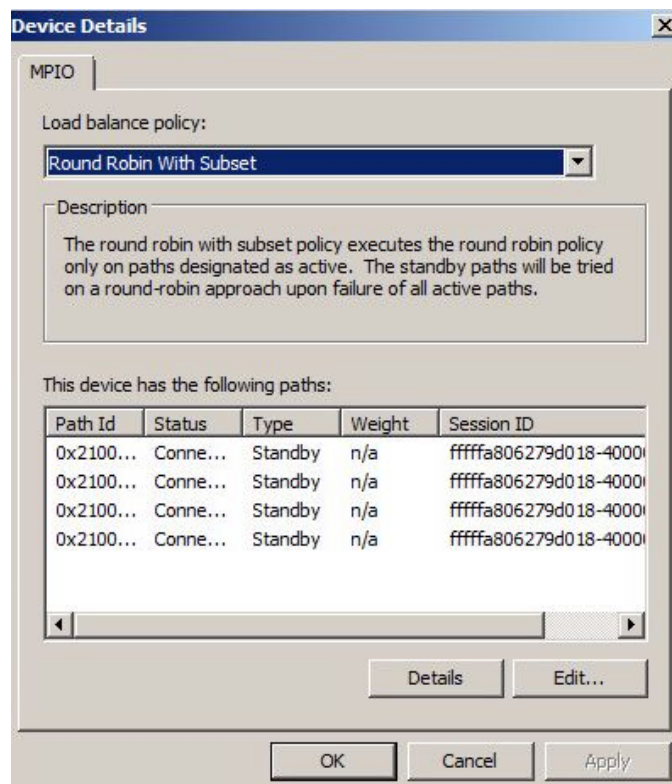
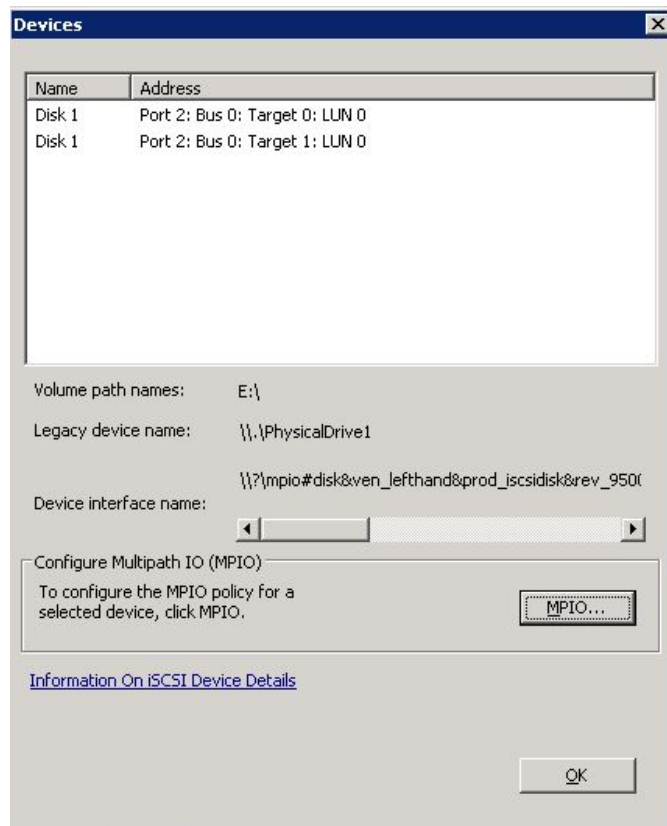


**IMPORTANT:** It is necessary to connect using all paths as well. Hence it is necessary to repeat Steps 6 and 7 above, this time selecting the IP address for the second, third and fourth path in **Target portal**. Again, make sure the values of the 'Local adapter' and 'Initiator IP' fields remain at 'Default'.

8. Go back to the iSCSI Initiator's main window and go to the **Targets** tab, select the target and click **Properties**.



- 9.
10. Click **Devices** and click the **MPIO** button to configure the load balancing policy. This should be configured to use "Round Robin with Subset" as we specified using Netapp DSM. If this is not the case, select it using the drop down menu.



11. To view the advanced path details, click on a path and click the **Details** button to view the information.

## 6 Verification

Once you have mounted your LUN(s) you can verify that the storage is being presented and that the optimal path to the storage is being used through MPIO.

Open Computer Manager-> ONTAP DSM.

Identify the correct LUNs are being presented and that all paths configured are visible.

Disks	Stor...	Storage System Path	Load Balance Policy	Reserv...	Total Paths
Disk1(E:)	dfaas_10	/vol/csxdemo3/winlun003.lun	Round Robin with Sub...	No	4
Disk2(F:)	dfaas_10	/vol/luntest2008/2008test	Round Robin with Sub...	No	4

Paths	LUN Info	I/O Statistics	History				
Disk ID	Path ID	Operational State	Admin State	Prefer...	Initiator Name	Initiator Address	Target Address
Disk1	21000203	● Active/Optimized	✓ Enabled	No	MS-iSCSI-Initiato...	0.0.0.0	192.168.1.16/3260...
Disk1	21000004	● Active/Non-Optimized	✓ Enabled	No	MS-iSCSI-Initiato...	0.0.0.0	192.168.1.14/3260...
Disk1	21000104	● Active/Non-Optimized	✓ Enabled	No	MS-iSCSI-Initiato...	0.0.0.0	192.168.1.15/3260...
Disk1	21000304	● Active/Non-Optimized	✓ Enabled	No	MS-iSCSI-Initiato...	0.0.0.0	192.168.1.17/3260...

Once this has been confirmed, you can now format, and use your storage optimally through disk management.

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