Open-E DSS V6 MPIO with Windows 2008

Software Version: DSS ver. 6.00 up14

Presentation updated: September 2010

Multipath I/O on DSS V6 with Windows 2008

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Example configuration of Multipath I/O on DSS V6 Windows 2008

Hardware Requirements:

To run the Multipath I/O on DSS V6 with Windows 2008 server, a minimum of two network cards in both systems are required. In this example the DSS V6 system and Windows 2008 server use three NICs.

LAN

Windows 2008 Server

Switch

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DSS V6 ; iSCSI Targets:
iqn.2010-03:dss233.esx
iqn.2010-03:dss233.win2008

IP:192.168.**0.70** eth0

IP:192.168.**0.220** eth0

IP:192.168.**2.70** eth1 (MPIO)

IP:192.168.**2.220** eth1 (used for the MPIO)

IP:192.168.**3.70** eth2 (MPIO)

IP:192.168.**3.220** eth2 (used for the MPIO)
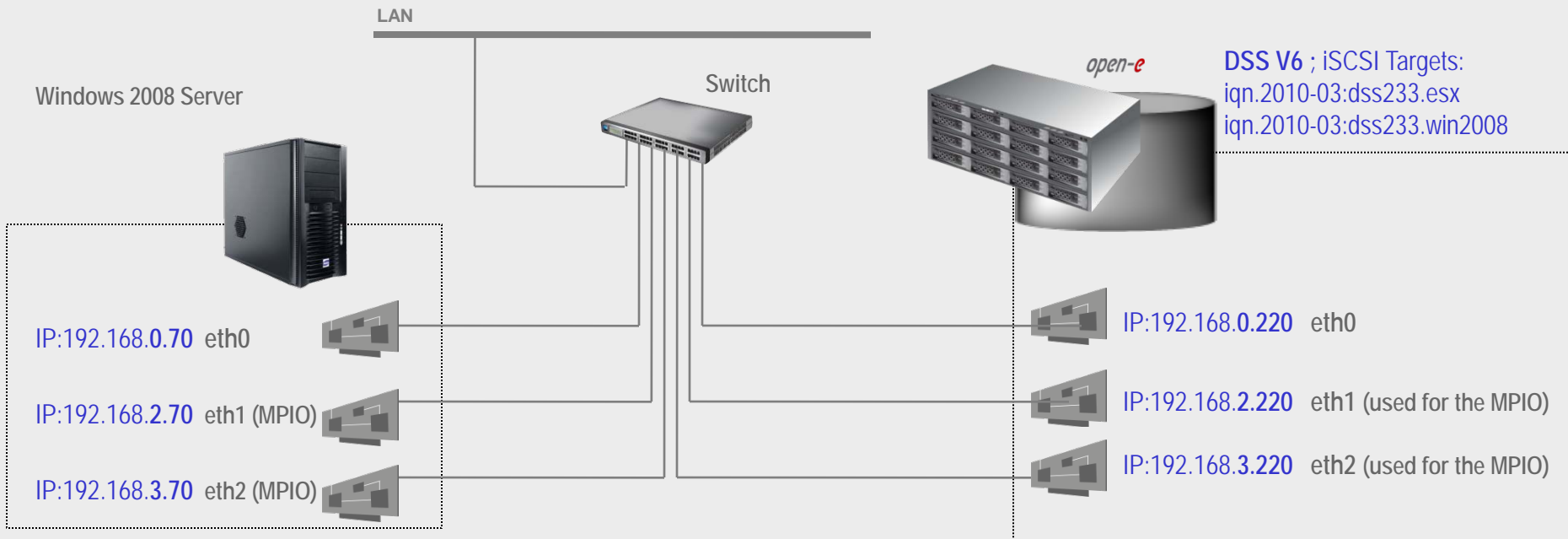
Configure the DSS V6

In order to verify proper NICs settings, go to menu: „**STATUS**" tab, „**network**" and <u>Interfaces</u>.

Two NICs must be used for MPIO, we will use the following IP addresses:
192.168.2.220
192.168.3.220

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| SETUP | CONFIGURATION | MAINTENANCE | STATUS | HELP |

You are here: STATUS ▸ network

Interfaces

Interfaces

Name	IP address	DHCP	Active	Cable	State
eth0	192.168.0.220	off	yes	cable	single
eth1	192.168.2.220	off	yes	cable	single
eth2	192.168.3.220	off	yes	cable	single

- eth0
- eth1
- eth2

DNS info

ℹ **Info**
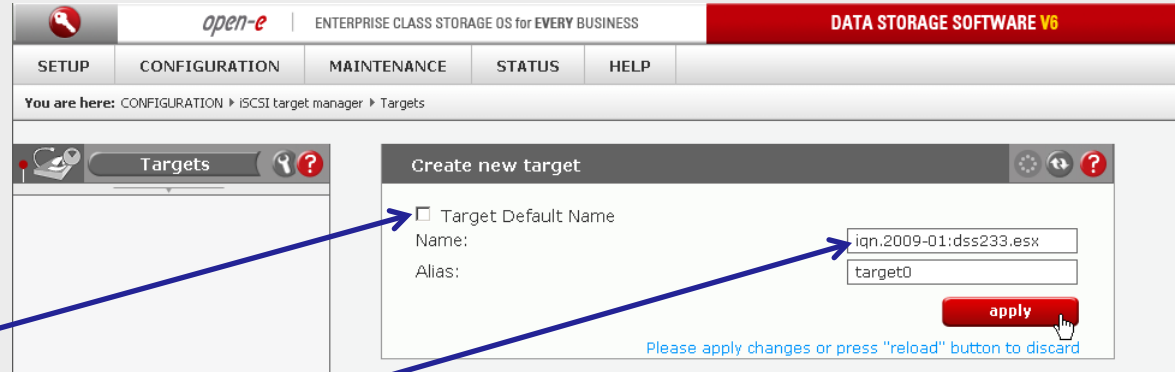No DNS servers set.

HTTP proxy info

Use HTTP proxy | HTTP proxy is off

Event Viewer: ✉

This is TRIAL version. 60 day(s) left for evaluation.

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Configure the DSS V6

Next, go to menu: „**CONFIGURATION**" tab, „**volume manager**" and <u>Vol. groups</u>.

In **Volume manager**, create two **Block-IO** or **File-IO** iSCSI volumes.
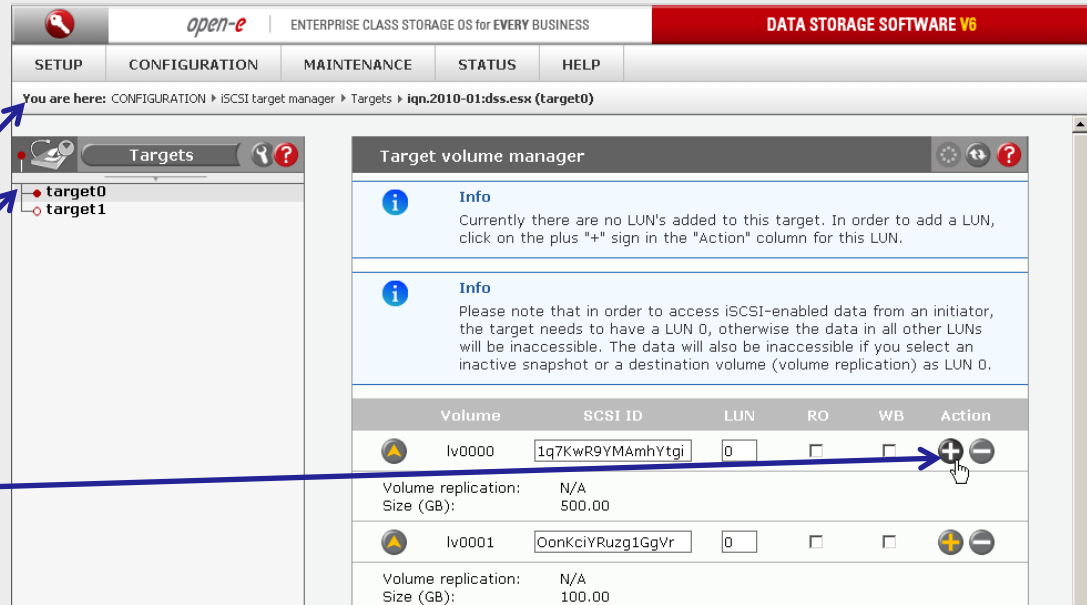
Configure the DSS V6

In menu: „CONFIGURATION" tab, „iSCSI target manager", Targets, please uncheck the **Target Default Name** and enter target name: **iqn.2009-01:dss233.esx**
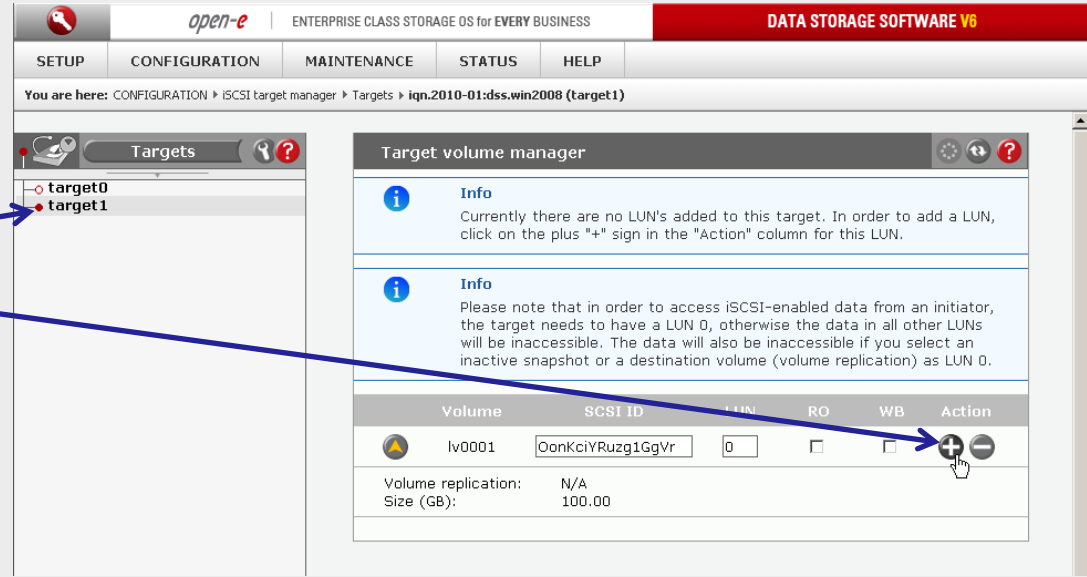
Then the second one: **iqn.2009-01:dss233.win2008**
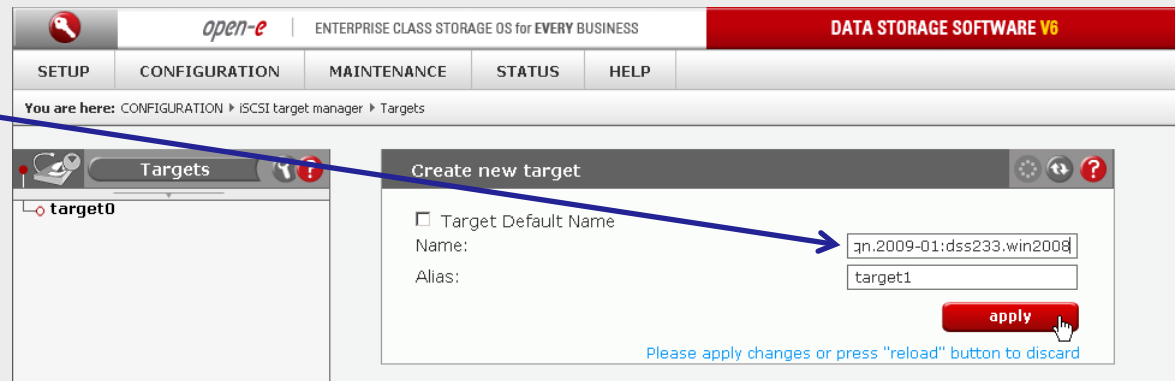
Configure the DSS V6

In menu „CONFIGURATION" tab, „iSCSI target manager", Targets, select first alias: target0 and click on the ⊕ button.
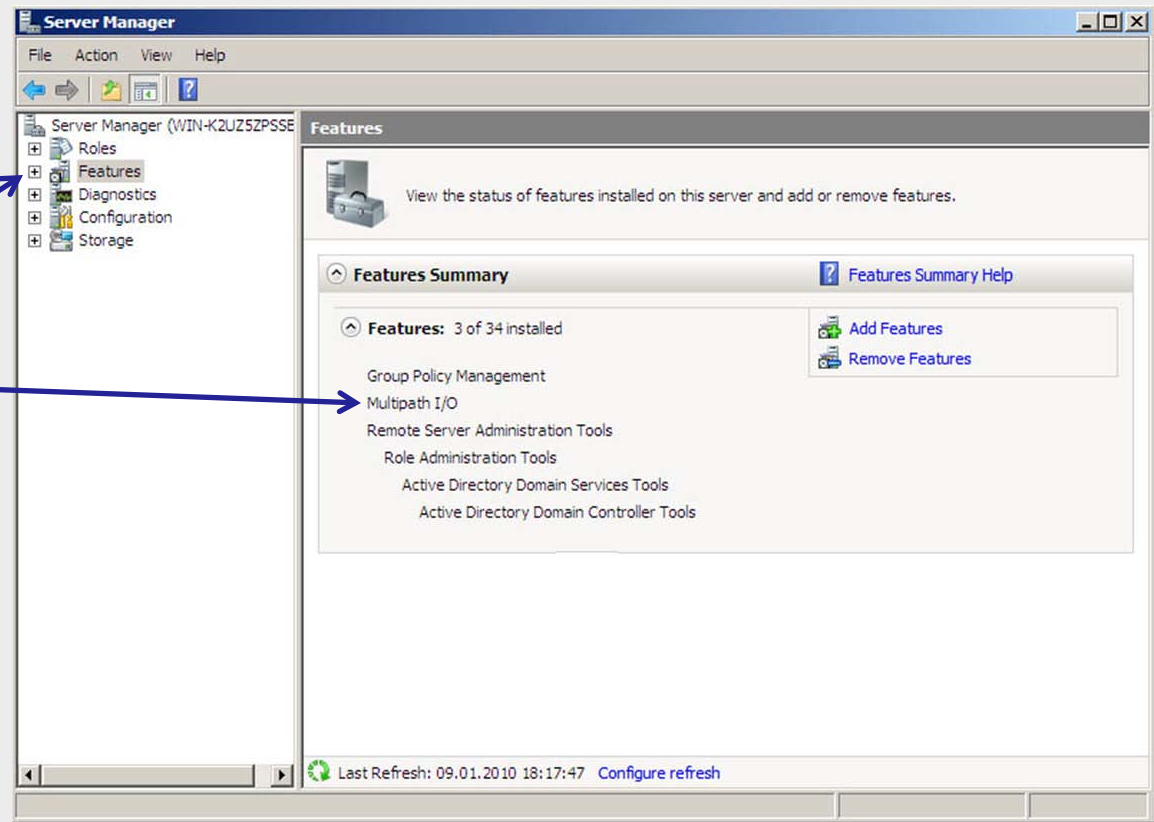
Then select the second alias: target1 and click on the ⊕ button.

Now the configuration of DSS V6 is finished.

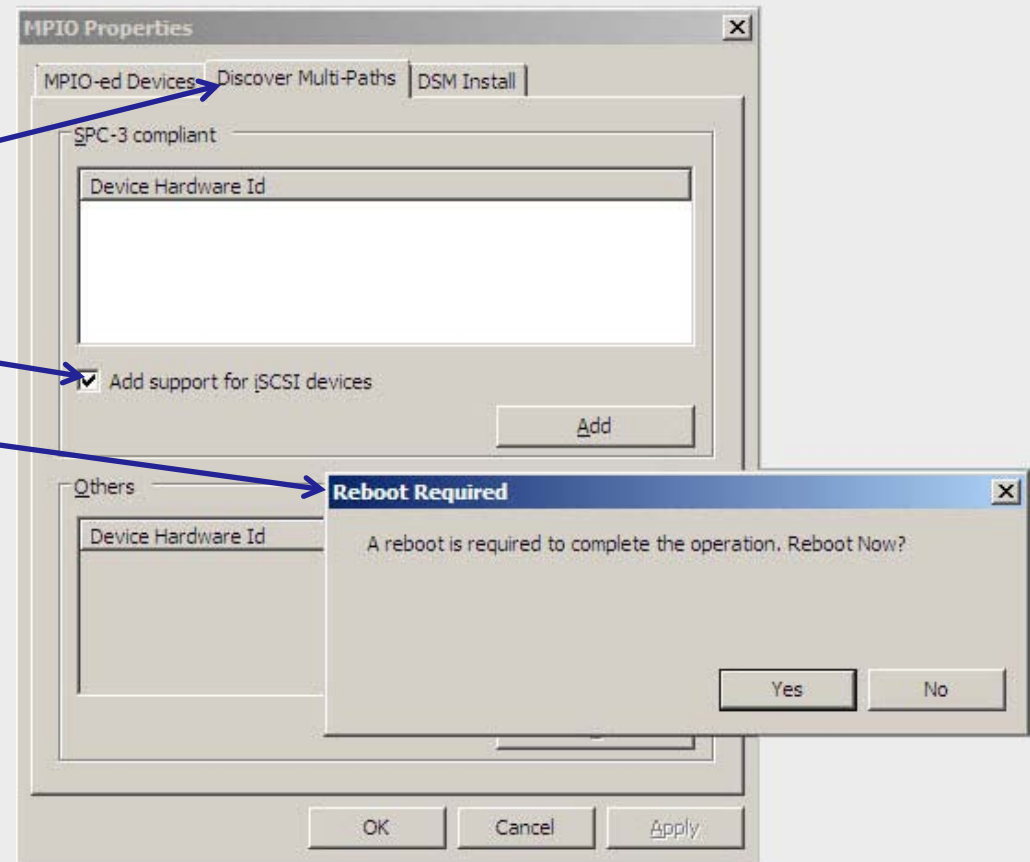# Multipath I/O on DSS V6 with Windows 2008

Step 1

Navigate in the Windows 2008 server to the Server Manager, then access the „Features" section and add the „Multipath I/O" feature.

Step 2

Run MPIO from the Administrative Tools. In the MPIO Properties, go to the „**Discover Multi-Paths**" tab, check the „**Add support for iSCSI devices**" box, and click on the „**Add**" button.
The system will reboot as this is required.
If the checkbox „**Add support for iSCSI devices**" cannot be selected, you will have to logon to any iSCSI target using an iSCSI initiator first.

MPIO Properties

MPIO-ed Devices | Discover Multi-Paths | DSM Install

SPC-3 compliant

Device Hardware Id

☑ Add support for iSCSI devices

Add

Others

Device Hardware Id

Reboot Required

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

Yes | No

OK | Cancel | Apply

Step 3

Launch the Microsoft iSCSI Initiator and click on the „**Discovery**" tab then click „**Add Portal...**", and enter the IP addresses of the two network interfaces of the DSS V6 server which has one or more iSCSI targets enabled.
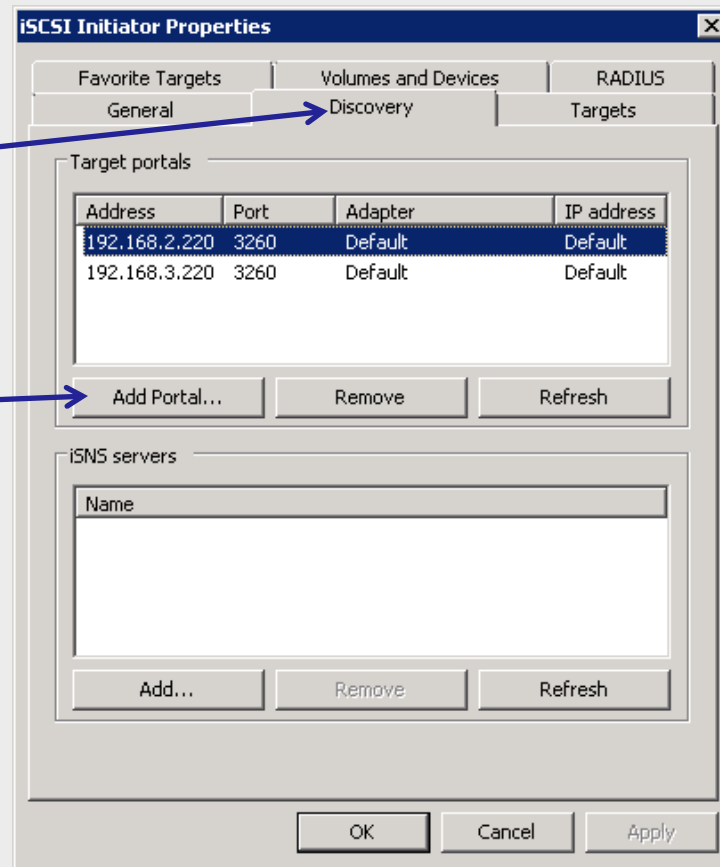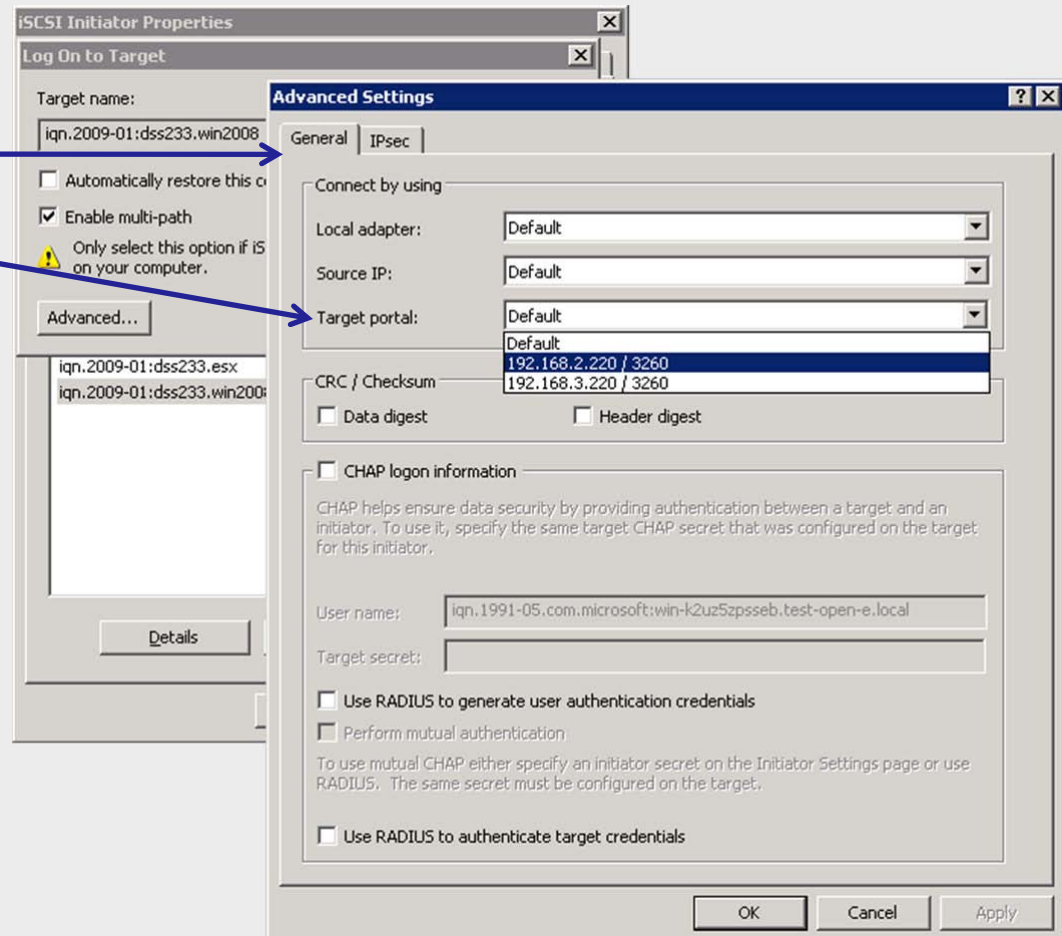
Step 4

Click „**Log on...**" on the "**Targets**" tab, and check the „**Enable multi-path**" box.

Multipath I/O on DSS V6 with Windows 2008
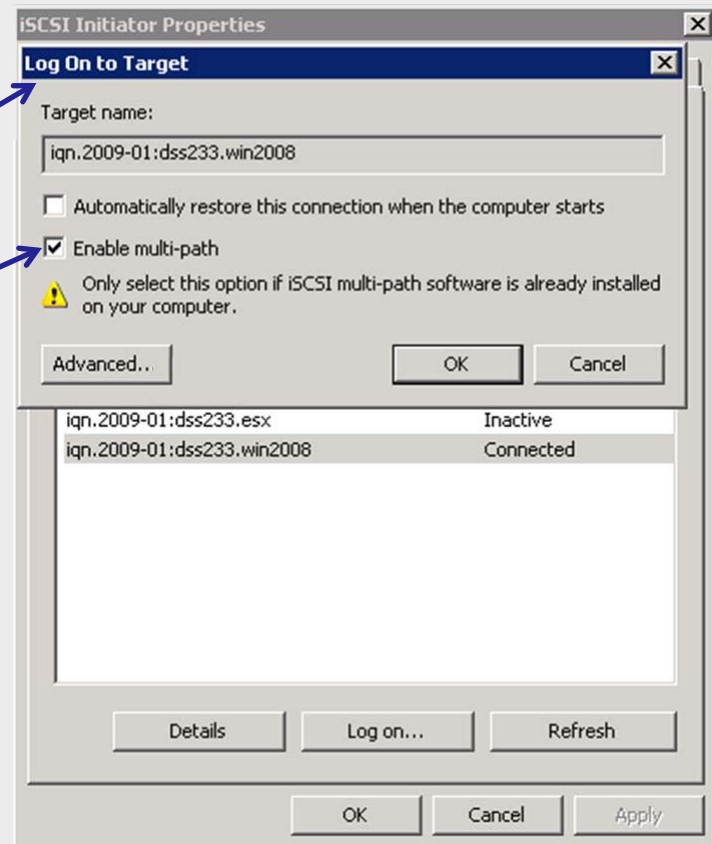
Step 5

Click the „**Advanced...**" button below on the „**General**" tab, select the IP address for the first path from the list of the „**Target portal**" field.

Please note that the values of the „**Local adapter**" and „**Source IP**" fields must remain to „**Default**".

Step 6

It is needed to log on as many times as there are paths to be used in MPIO (in this example we will log on twice), repeat steps 4. and 5., this time selecting the IP address for the second path in „**Target portal**".
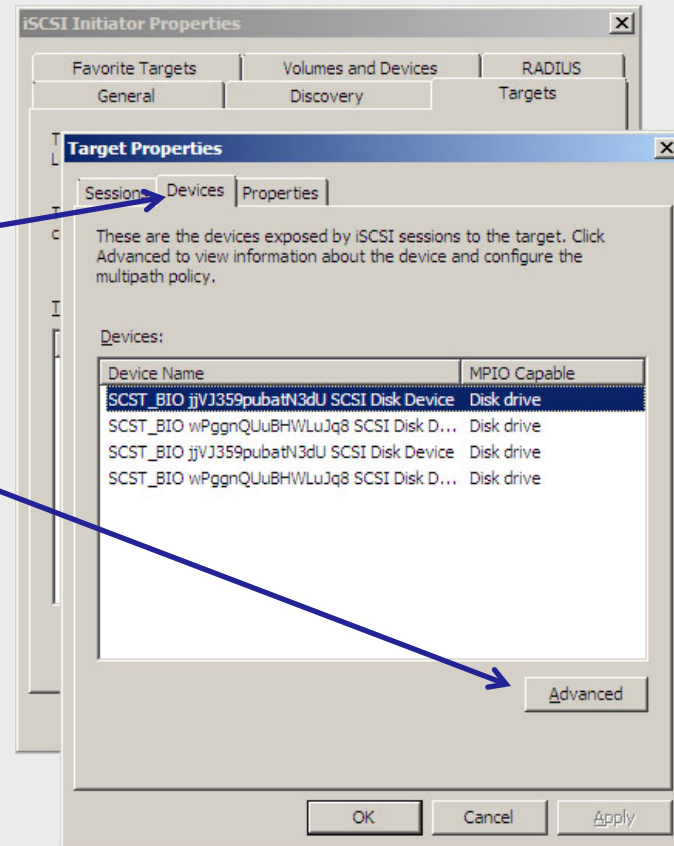Again, make sure the values of the „**Local adapter**" and „**Source IP**" fields remain at „**Default**".
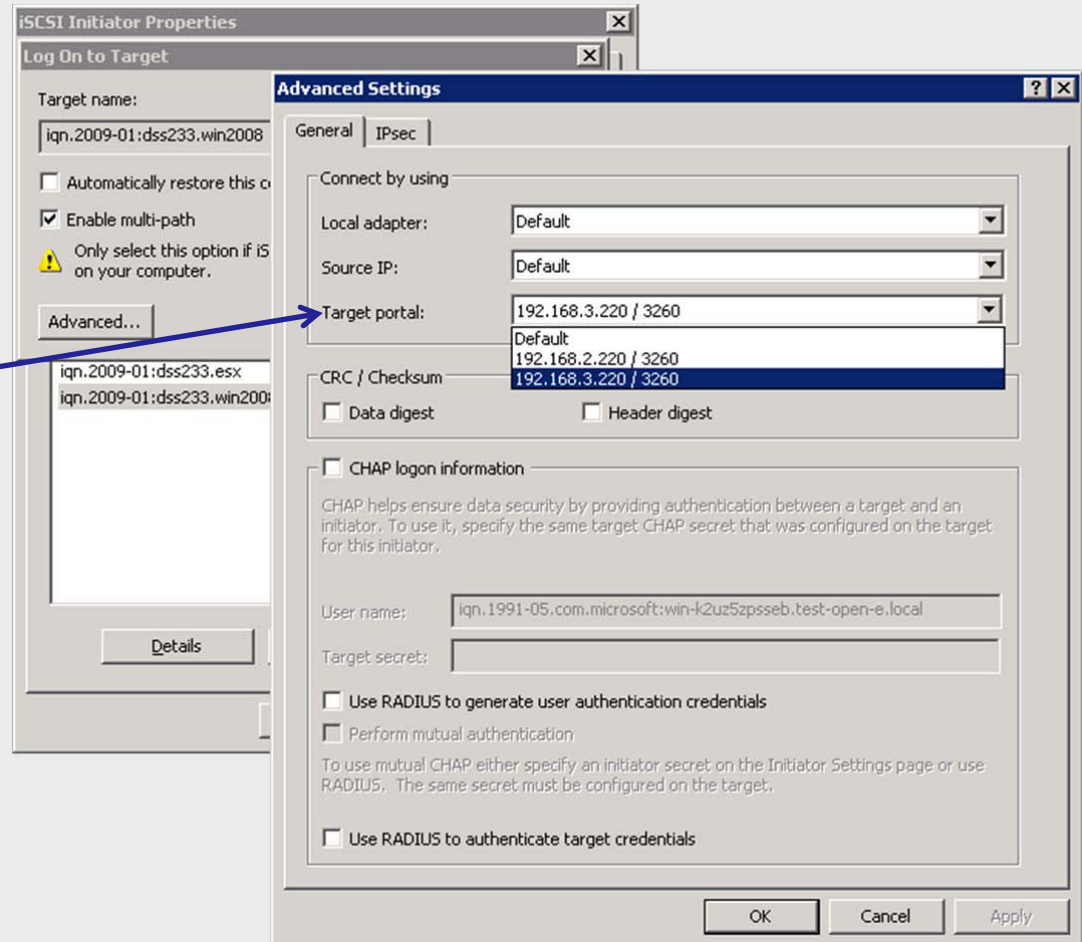
Step 7

Now go back in the iSCSI Initiator's main window and go to the „**Targets**" tab, select the target, and click the „**Details**" button.
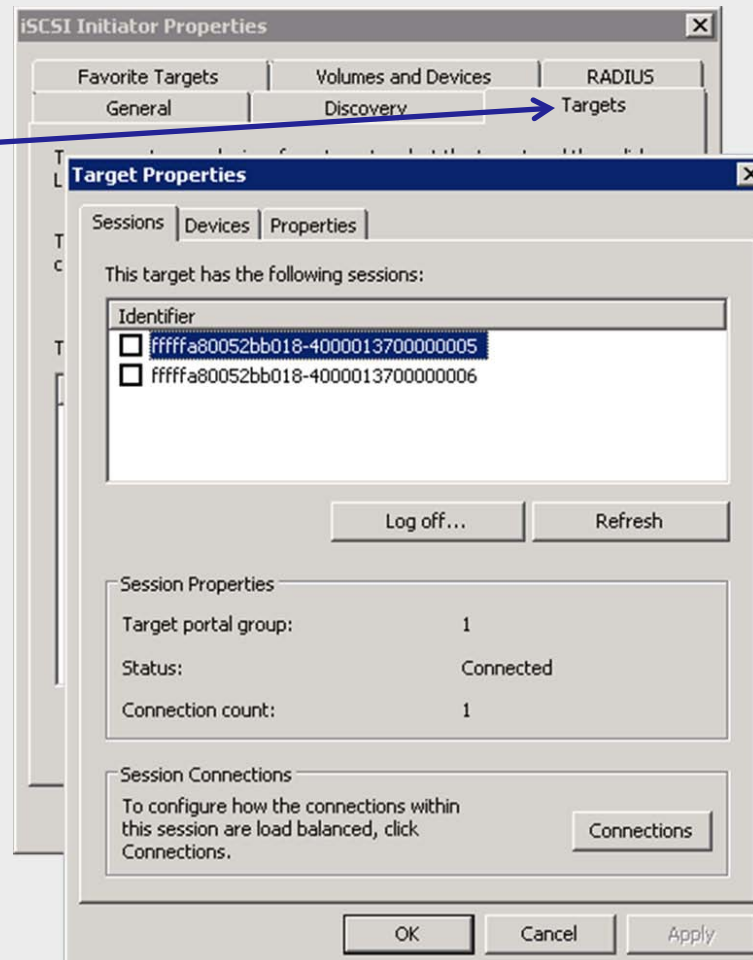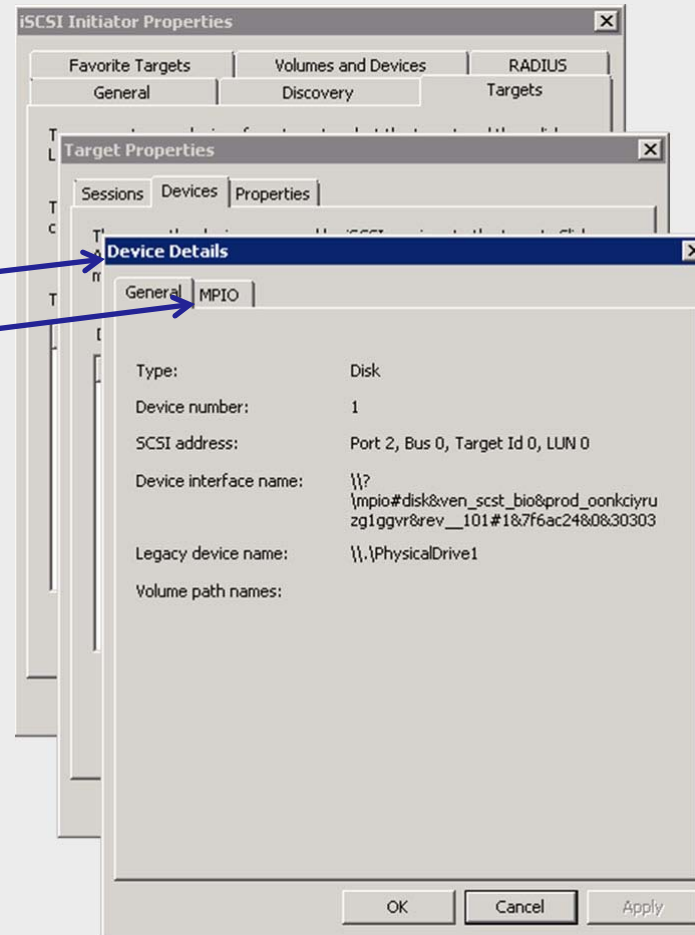
Step 8

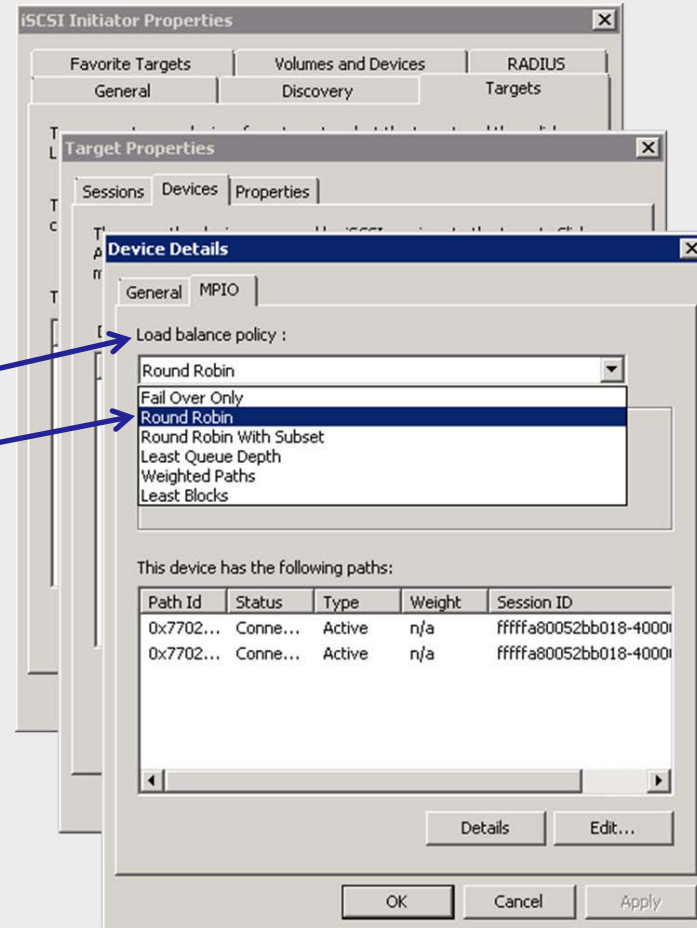On the „**Devices**" tab, click the „**Advanced**" button.

Step 9

In the „**Device Details**" window, go to the „**MPIO**" tab.

Step 10

Select „**Round Robin**" in the „**Load balance policy**" from the pull down menu, confirm by clicking the „**OK**" button and exit the iSCSI Initiator.

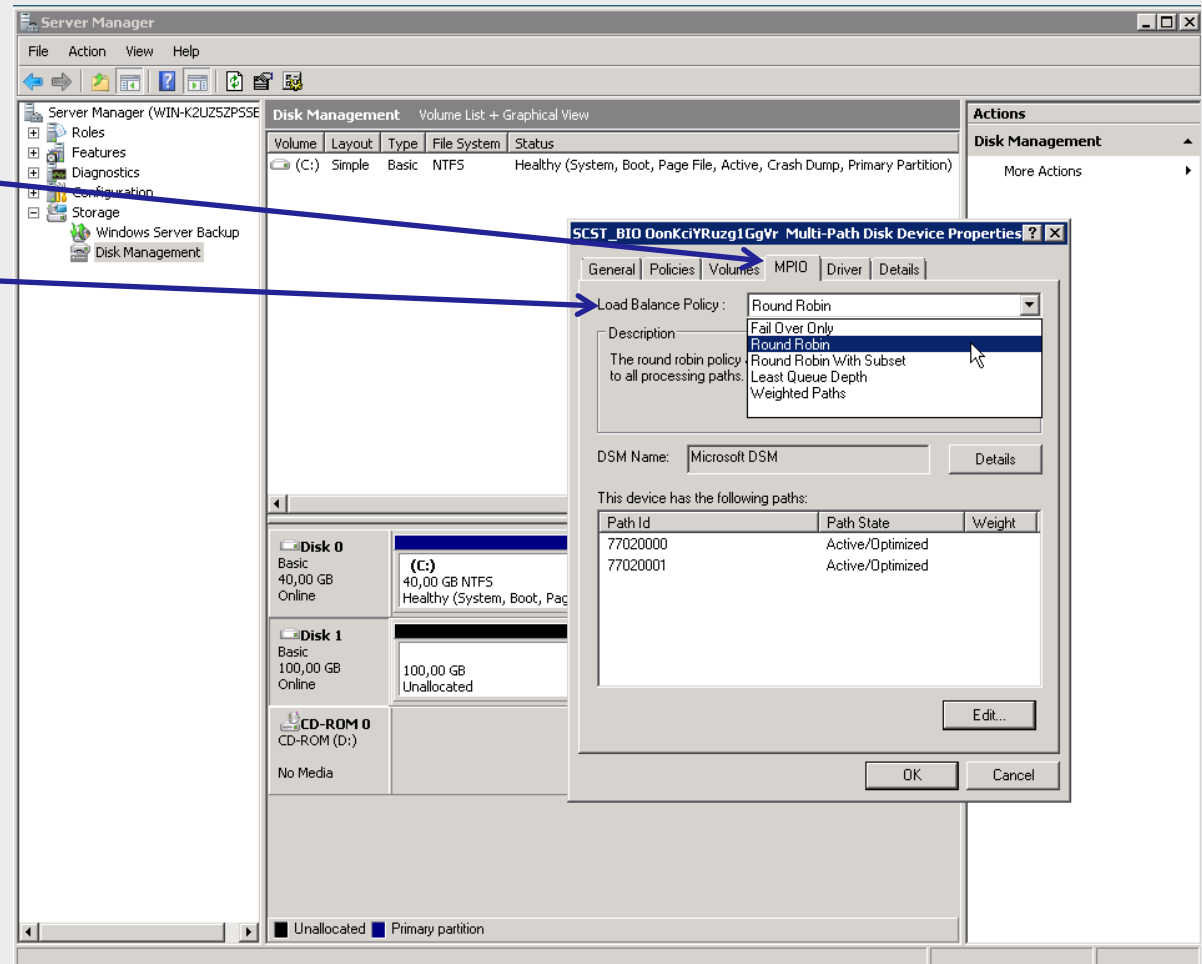# Multipath I/O on DSS V6 with Windows 2008

Step 11

Now go back to the „**Server Manager**" and navigate to the „**Storage -> Disk Management**".

Next, right-click on the disk provided by the iSCSI Initiator and select „**Properties**".
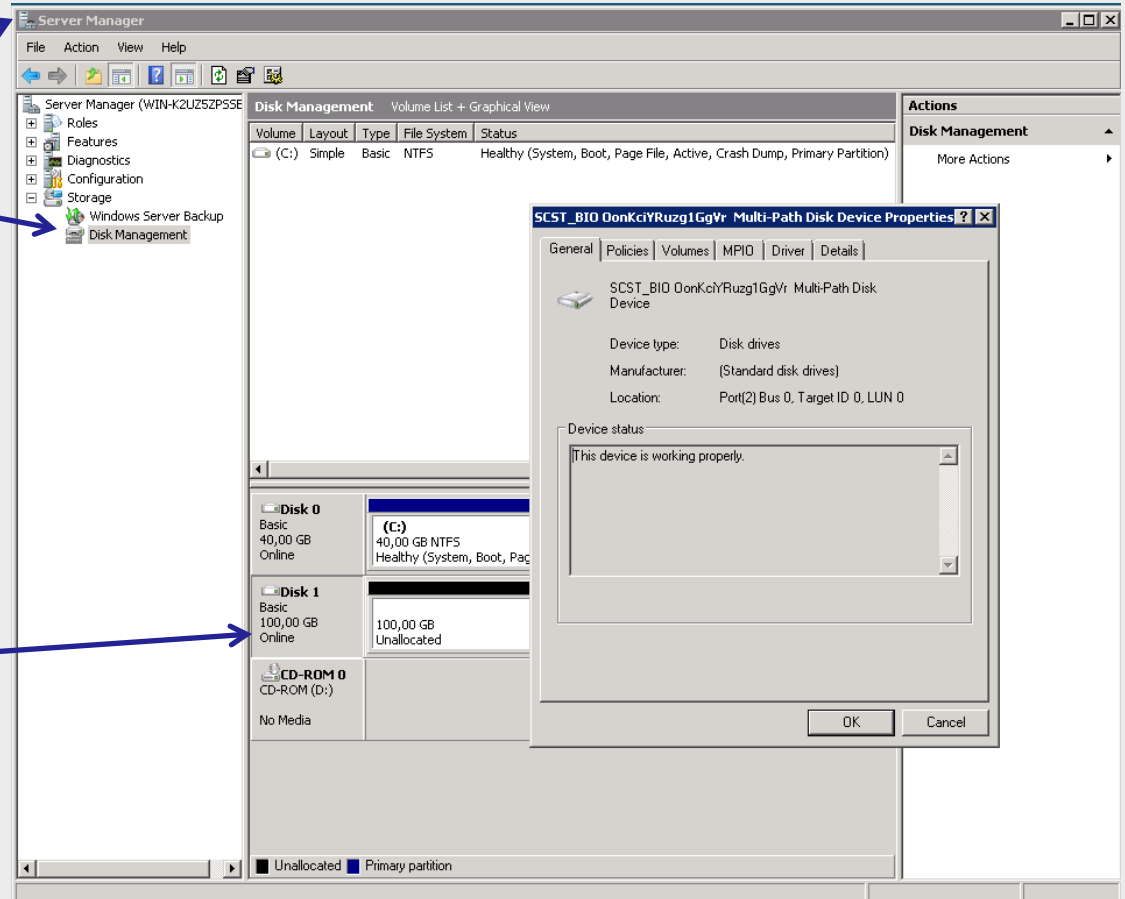
Step 12

On the „**MPIO**" tab, select „**Round Robin**" from the „**Load Balance Policy**" pull down menu and click the „**OK**" button to confirm.

Verify the performance with „**Iometer**" and „**Windows Task Manager**".

Step 13

Now you have completed the configuration of Multipath I/O on DSS V6 with Windows 2008 server.

Thank you!