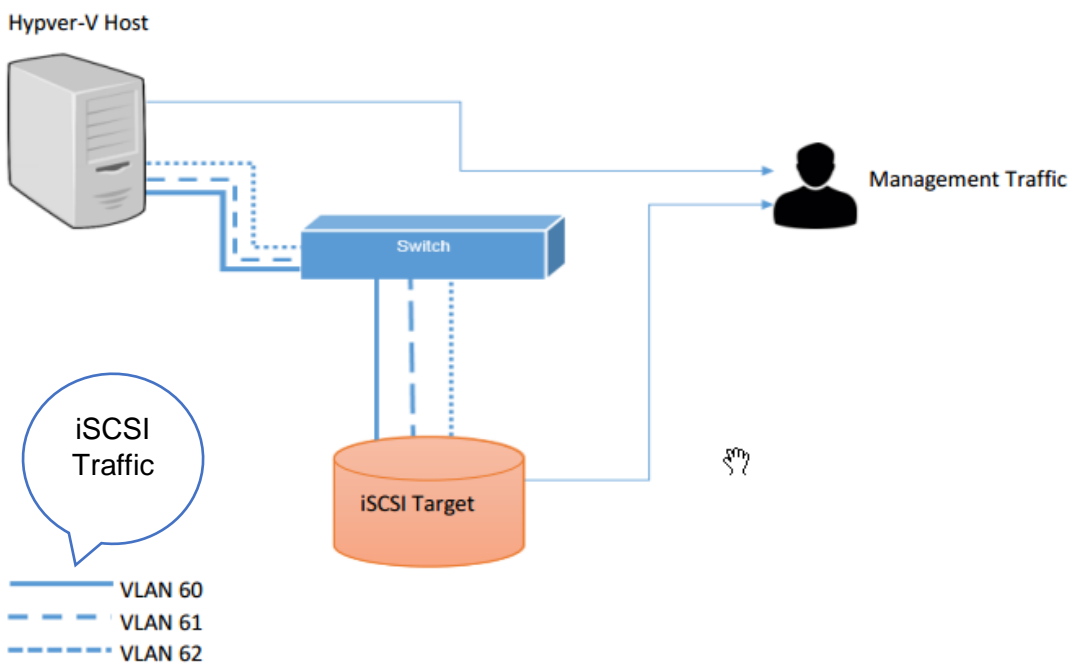


# Configuring Multipath (MPIO) in Windows Server 2012 R2

This document will help you to install and configure MPIO in windows server 2012 R2 with open-e storage solution.

Lab Requirements:

HOST	STORAGE	NIC'S
Windows server 2012 R2	Open-E dss7	4 NIC(One for management traffic reset for iSCSI )



In this scenario we are going to configure a Hyper-V server to use an iSCSI target space for storing the VM files. Since the VM's are loading from the remote storage it's very crucial to have a high input/output operations over the network without any breach in latency.

Here we are going to provide three paths for Hyper-V host to reach the storage server which will be working on a round robin policy. Please refer MPIO polices in details [here](#) .For better understanding we can spilt this configuration steps in to three phases.

## Phase 1

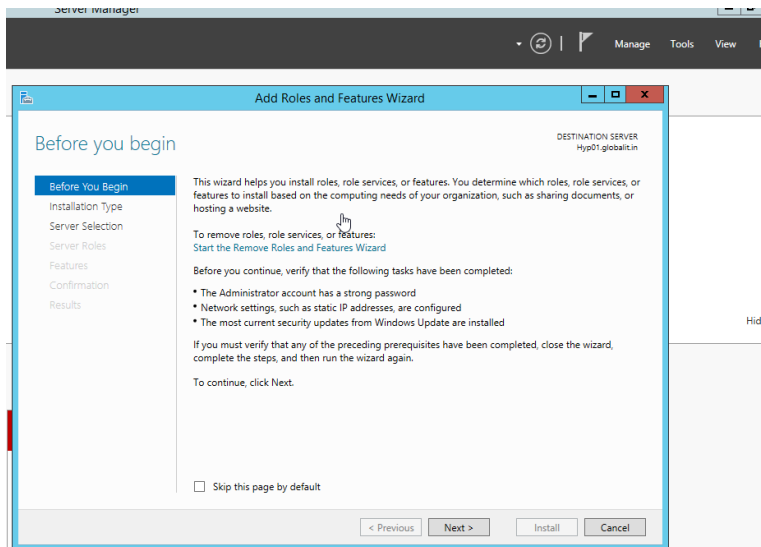
Create physical connectivity for three paths in different VLAN's and assign the IP address for both storage and Hyper V server. Also enable Jumbo frame for all the interfaces for better performance.

# Configuring Multipath (MPIO) in Windows Server 2012 R2

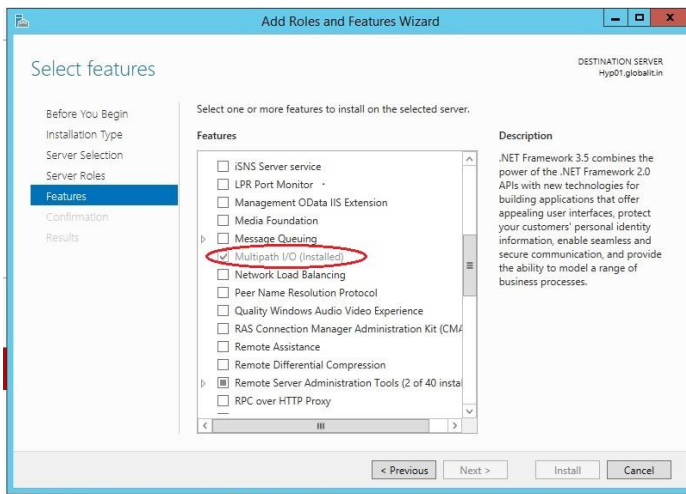
## Phase 2

Install and configure MPIO feature in Hyper-V Server

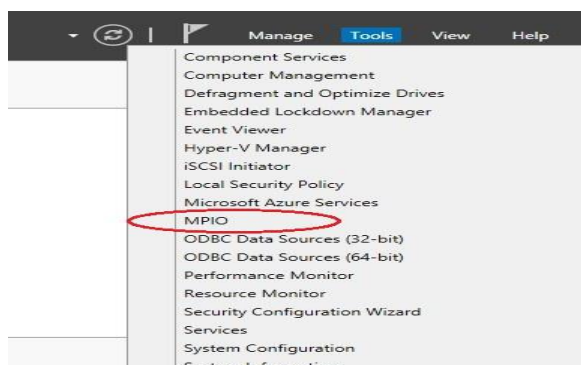
1. Navigate to 'Add roles and features' wizard



2. Jump to features, Select 'Multipath I/O' and give next to install the feature

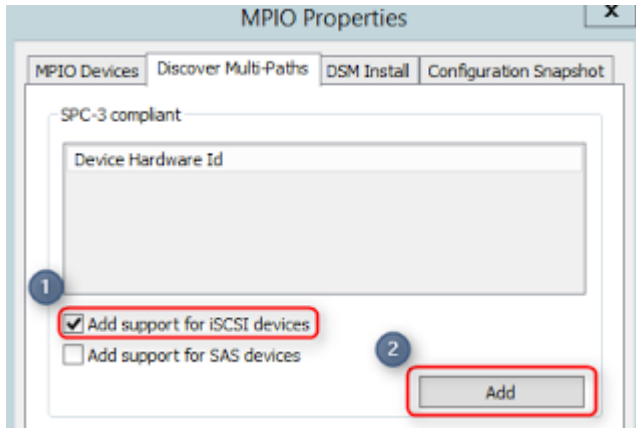


3. After completing the installation go to Tools and select 'MPIO'

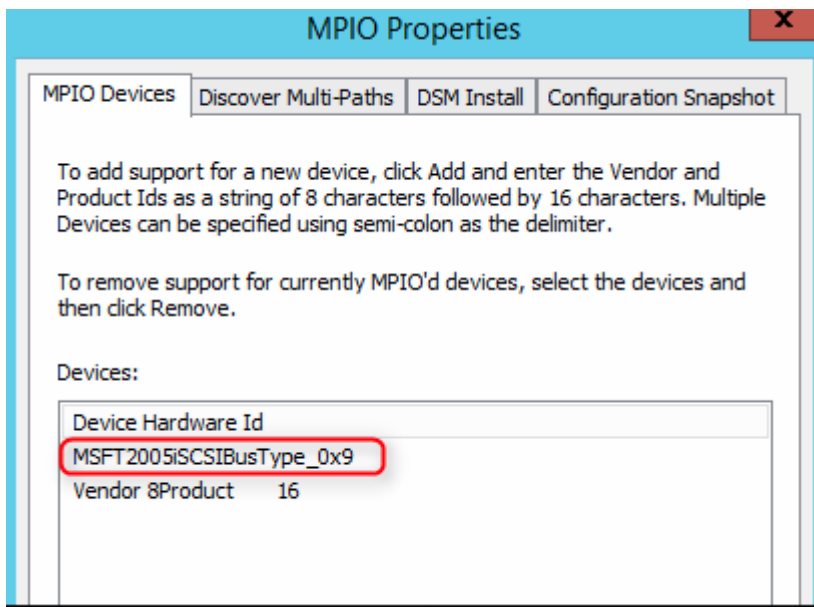


## Configuring Multipath (MPIO) in Windows Server 2012 R2

4. Check 'Add support for iSCSI devices' and give ok ,this will restart the Host .



5. Make sure "MSFT2005iSCSIBusType\_0x9" was added after restarting the computer



### Phase 3

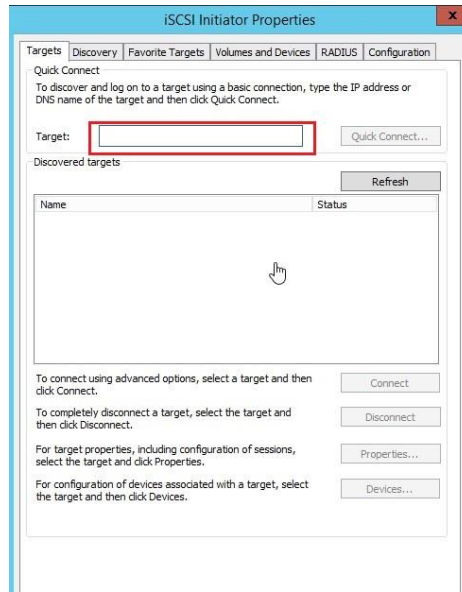
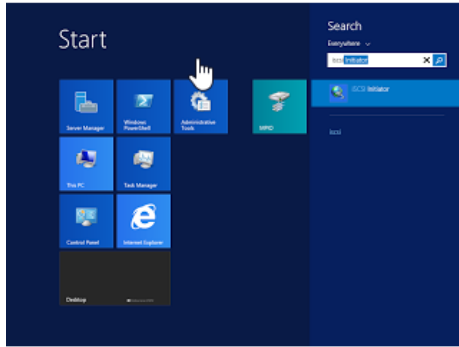
Configure iSCSI initiator with Multipath:

Before we try to connect with iSCSI target please make sure you have enabled iSCSI target to allow connections from the Host IP's.

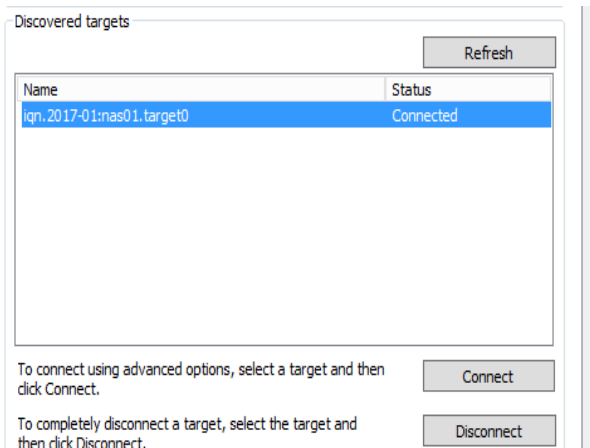


# Configuring Multipath (MPIO) in Windows Server 2012 R2

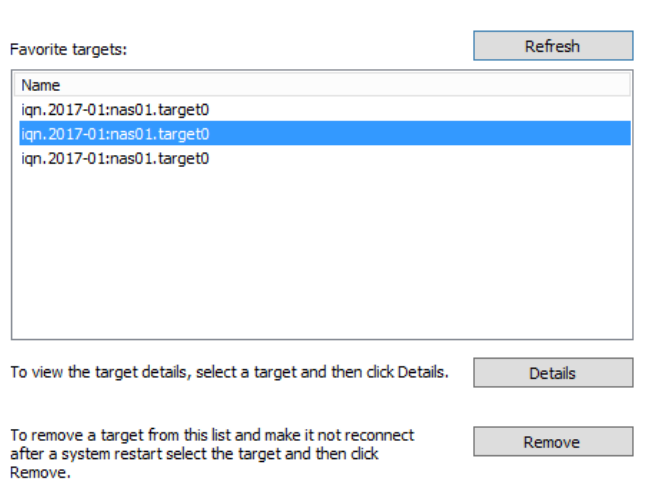
1. On Host, press start button and then enter "iSCSI Initiator".



2. On "iSCSI Initiator Properties" window, next to "Target", enter the first IP of target, Use quick connect.

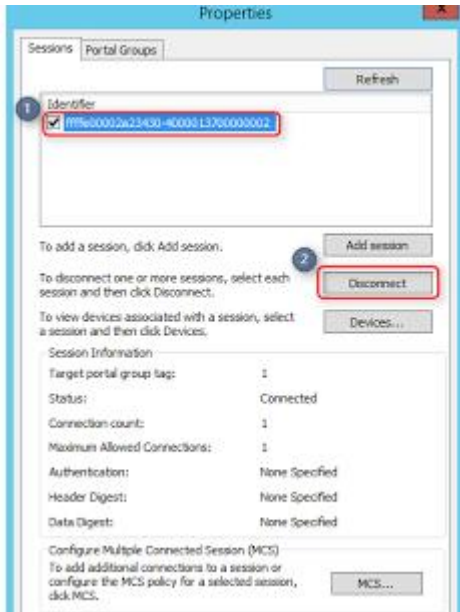


3. Navigate to **Favorite tab** in initiator properties and remove all **favourites**

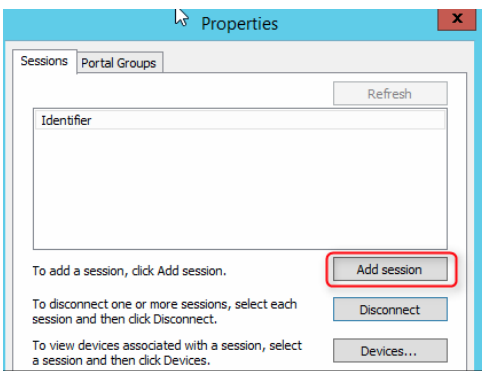


## Configuring Multipath (MPIO) in Windows Server 2012 R2

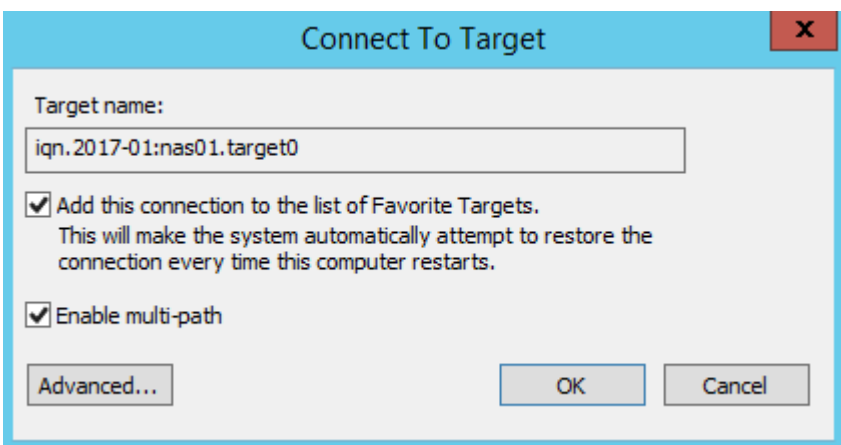
4. On "Properties" window, check the first "Identifier" and then click "Disconnect".



5. Click Add Session

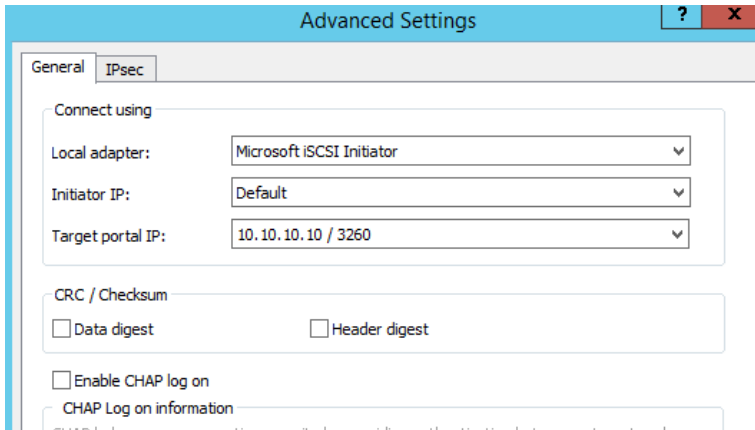


6. On "Connect To Target" window, check "Enable multi-path" and then click "Advanced".



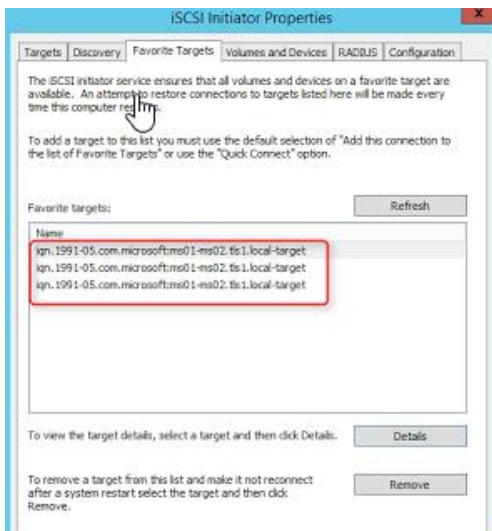
## Configuring Multipath (MPIO) in Windows Server 2012 R2

6. On **Advanced settings window**, Select initiator IP and corresponding target portal IP leave local adapter as default.

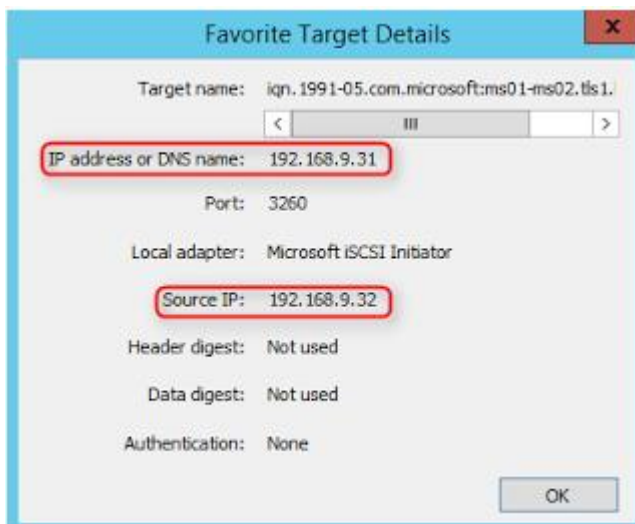


7. Repeat this for other connections and click 'ok'

Select '**Favourite targets**' tab



Select each target and then click "**Details**" to verify the connection.

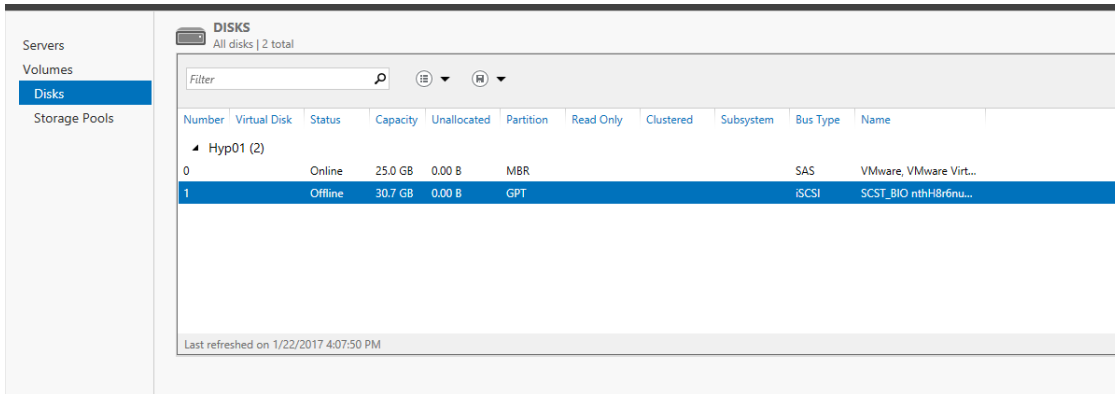


Make sure all connections are correct.

# Configuring Multipath (MPIO) in Windows Server 2012 R2

8. Click **"OK"** to close **"iSCSI Initiator Properties"**

Launch **"Server Manager"** and then select **"File and Storage Services"**. Select Disks



The disk is available. The connection was made. Now you have an iSCSI disc with three paths configured to the target

---