

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	1 of 16

Preparation

1. The heartbeat between two controllers must be normal.
2. No need to configure the resource ip
3. Dual controller Hybrid SAN must use the SAS enterprise level HDD

The screenshot shows the 'Cluster -> Cluster' configuration page. It includes a sidebar with navigation options like Maintenance, Storage, SAN Management, Hybrid SAN, Cluster, System, and Log System. The main content area has tabs for 'Manual configure', 'Auto configure', and 'Test heartbeat'. Under 'Cluster heartbeat info', there is a table with columns: Cluster device, Heartbeat port position, Heartbeat IP, and Subnet mask of heartbeat port. The table lists 'Local cluster heartbeat' and 'Remote cluster heartbeat' with their respective configurations. Below this, there is a 'Resource IP info' section with a table for Cluster device, Application, Attach nic, Virtual port, Resource IP, Netmask, and Resource IP status. At the bottom, there is a 'Data recovery wait time' field set to -1 and a 'Force BBU on' button.

How to configure Ipsan for windows server 2012 with dual controller Hybrid san

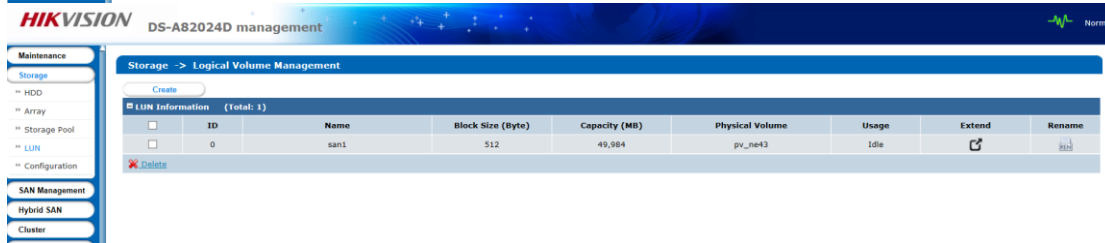
1. Enable the iscsi in Hybrid SAN

1) LUN allocation

Login to any controller (this article takes 10.41.8.161 controller operation as an example)
Enter Array ---Storage pool --- lun interfaces in turn, finish the Lun allocation.

The screenshot shows the 'Storage -> Array Management' configuration page. It includes a sidebar with navigation options like Maintenance, Storage, SAN Management, and Hybrid SAN. The main content area has a 'Create' button and a table for 'Array Information (Total: 1)'. The table has columns: Array Name, Type, Capacity (MB), State, Group, and Maintenance. The table lists an array named 'A' with Type RAID5, Capacity 572,204, and State 'Initialize Progress: 0.2% Remaining Time: 5683 Hour 28 Minute'. Below the table, there is a 'Delete' button and a section for 'Add Hot Spare Disk' and 'Hot Spare Disk Information'.

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	2 of 16

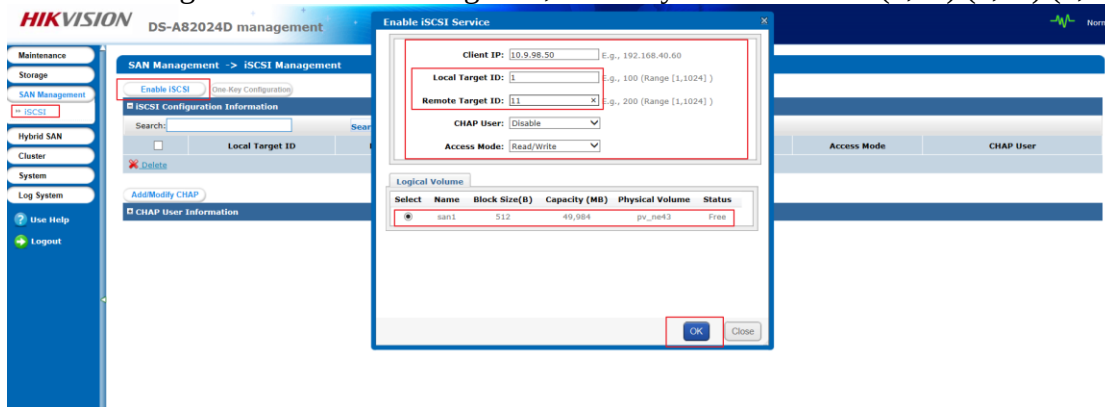


Note:

For IPSAN application, the MAX capacity of LUN is 16TB;
Only need to do the above on one controller, the other controller will automatically synchronize

2) Enable ISCSI

Right click the SAN Management in the left bar. Click iSCSI and enter the iSCSI interface. And then click Enable iSCSI, input the Client IP which is the IP address of storage server. Then input The Local target ID and Remote target ID, normally we set them as (1,11) (2,22) (3,33).....



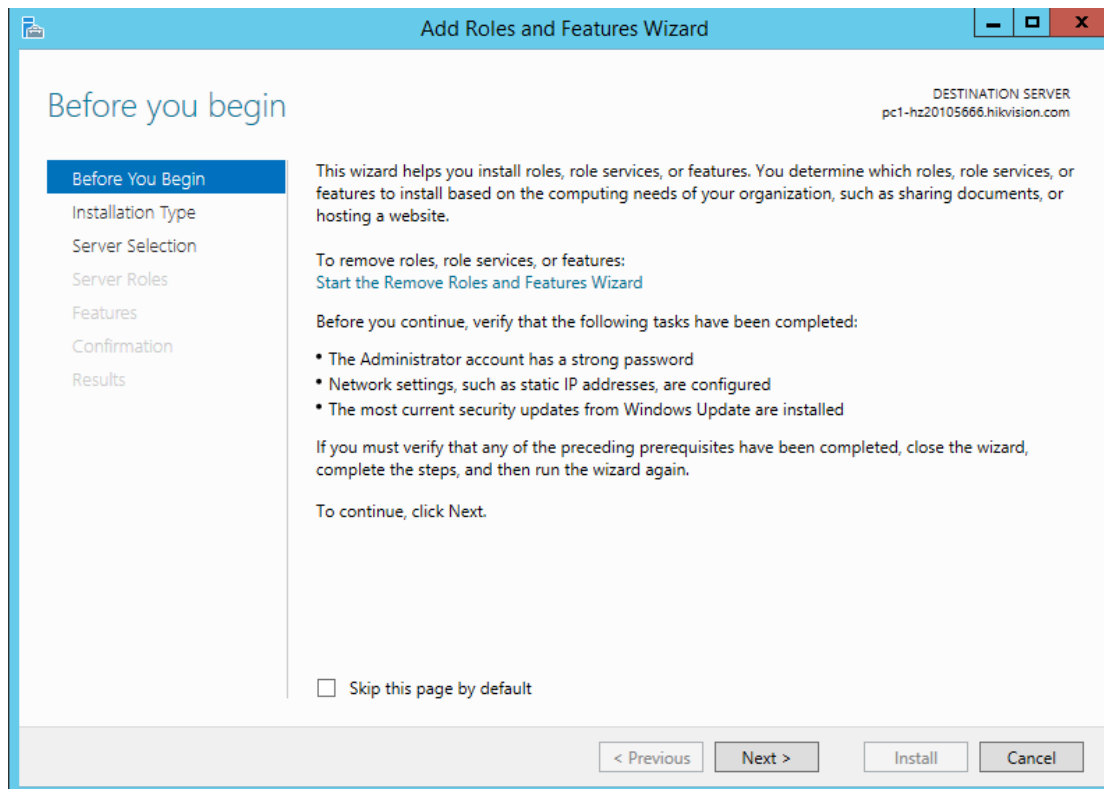
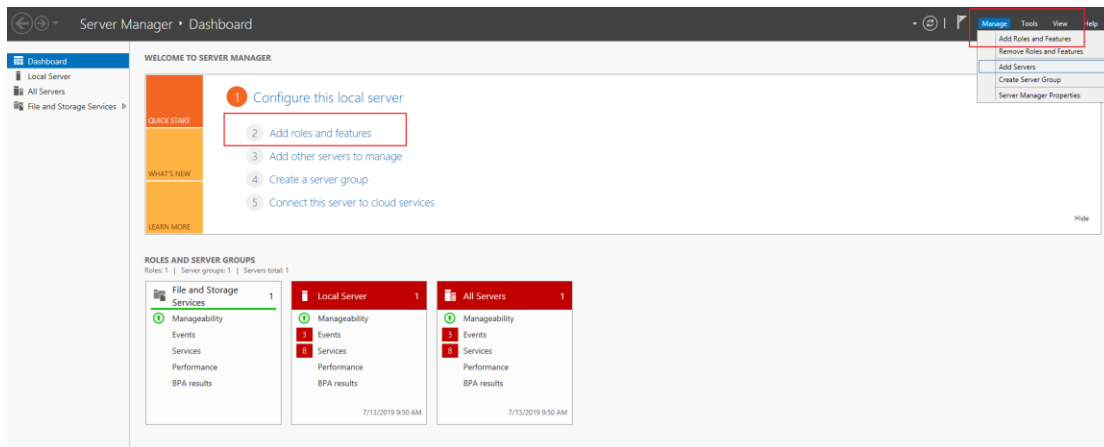
Note:

SAS disk can be detected by two controller separately, so here we need different target ID for each controller, the windows server will detect two iscsi volumes with different IDs, then we also need to aggregate the two volumes into one (MPIO)

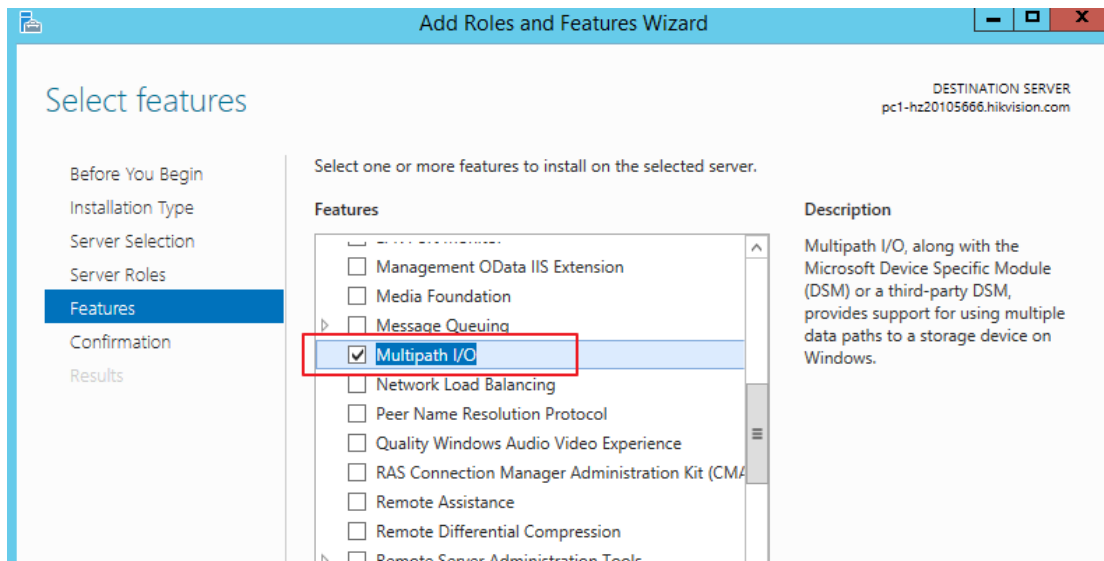
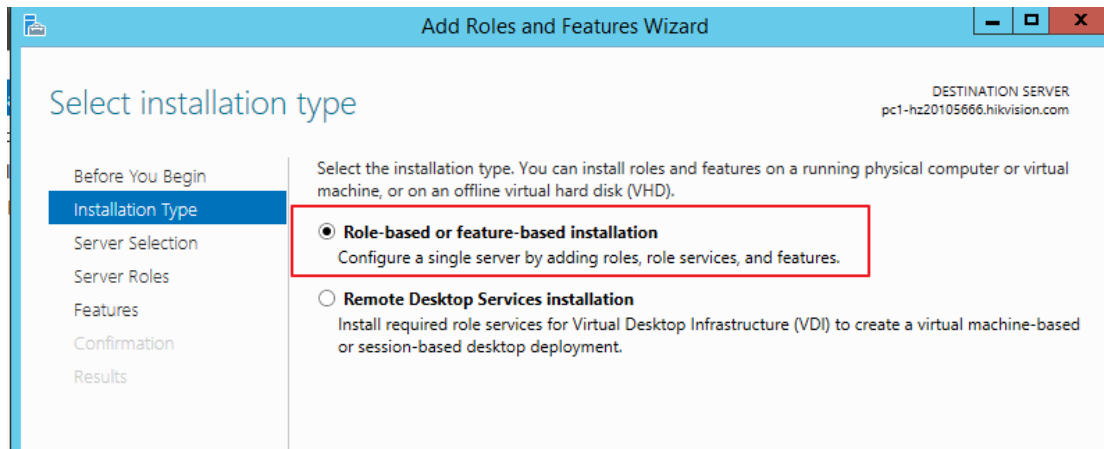
2. Install MPIO in windows server 2012

1) Install MPIO

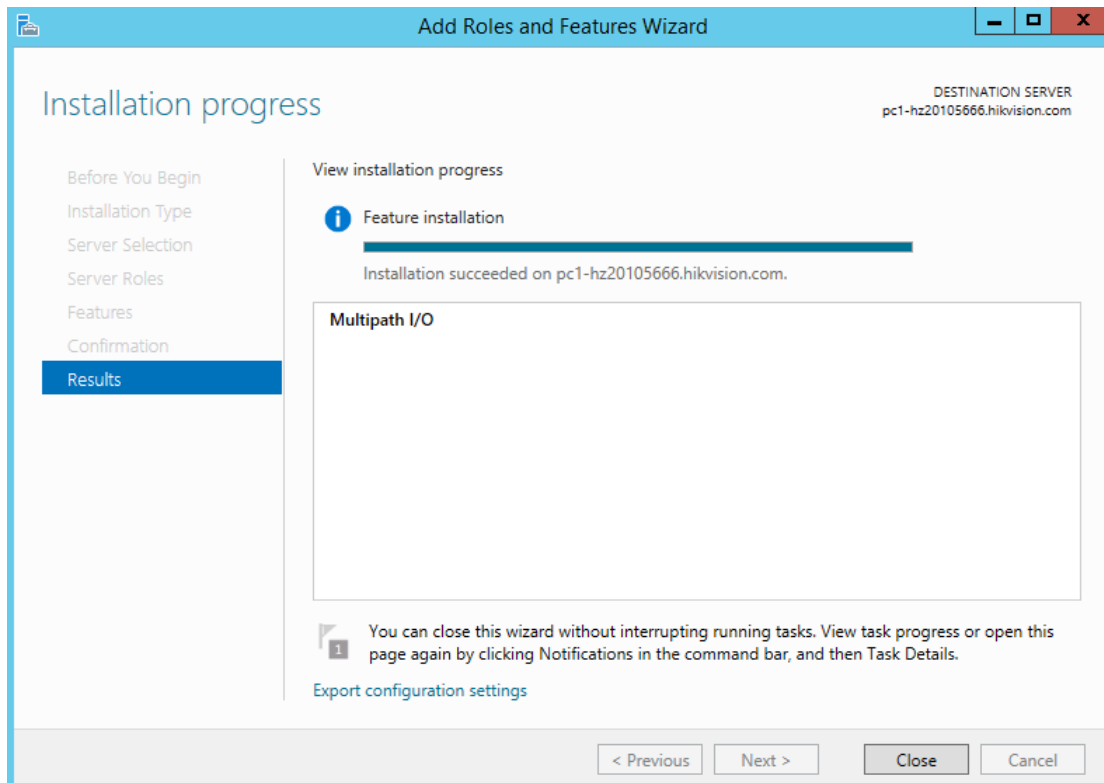
Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	3 of 16



Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	4 of 16



Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	5 of 16

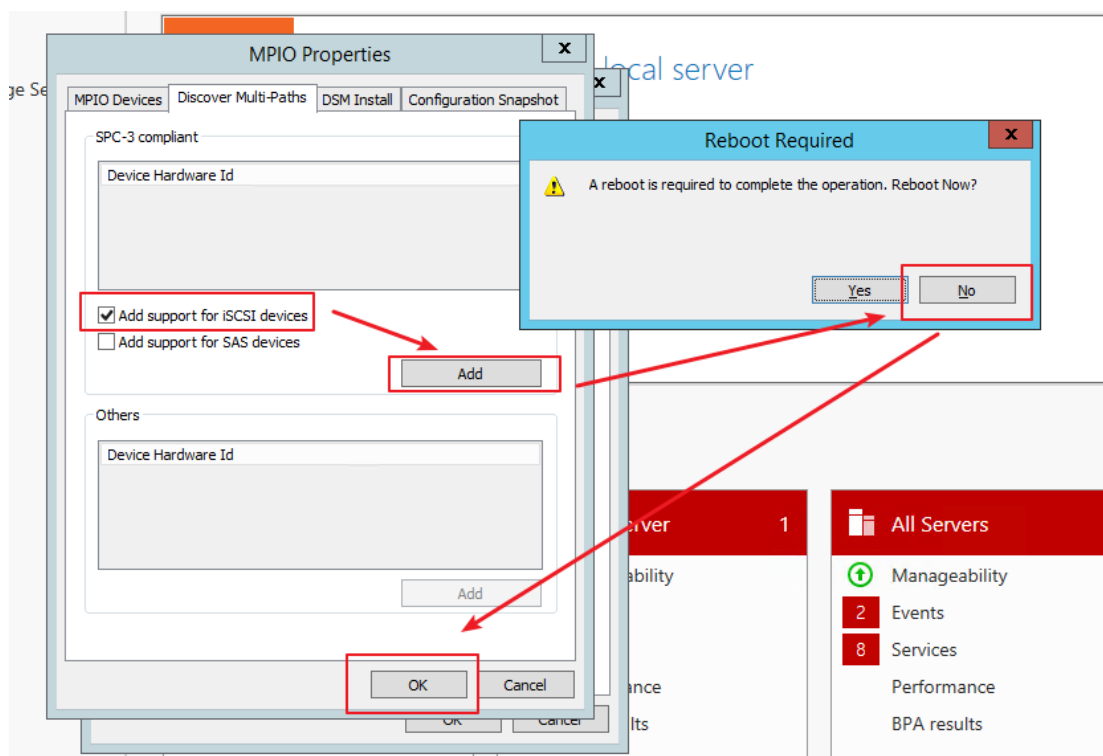


2) MPIO configuration

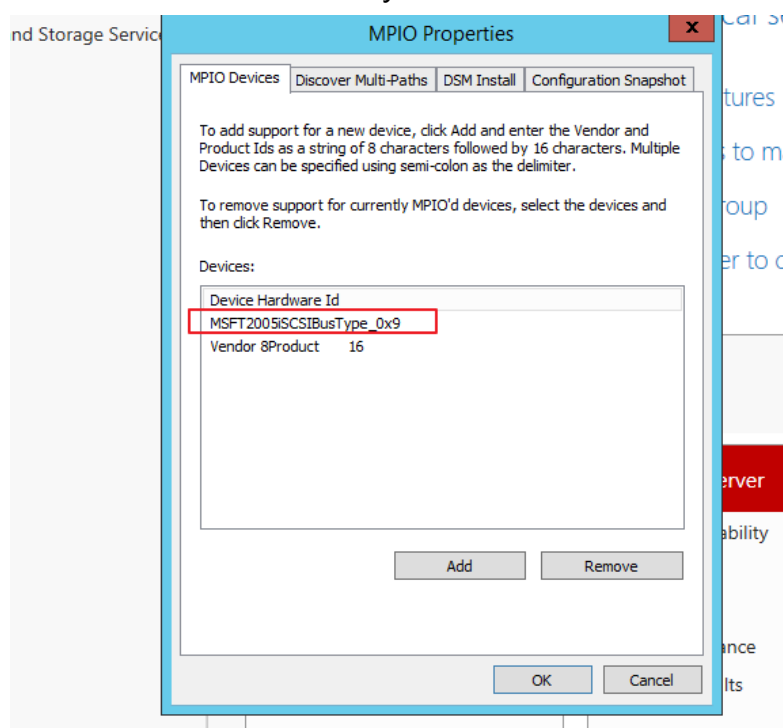


Tick “Add support for iSCSI devices”

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	6 of 16

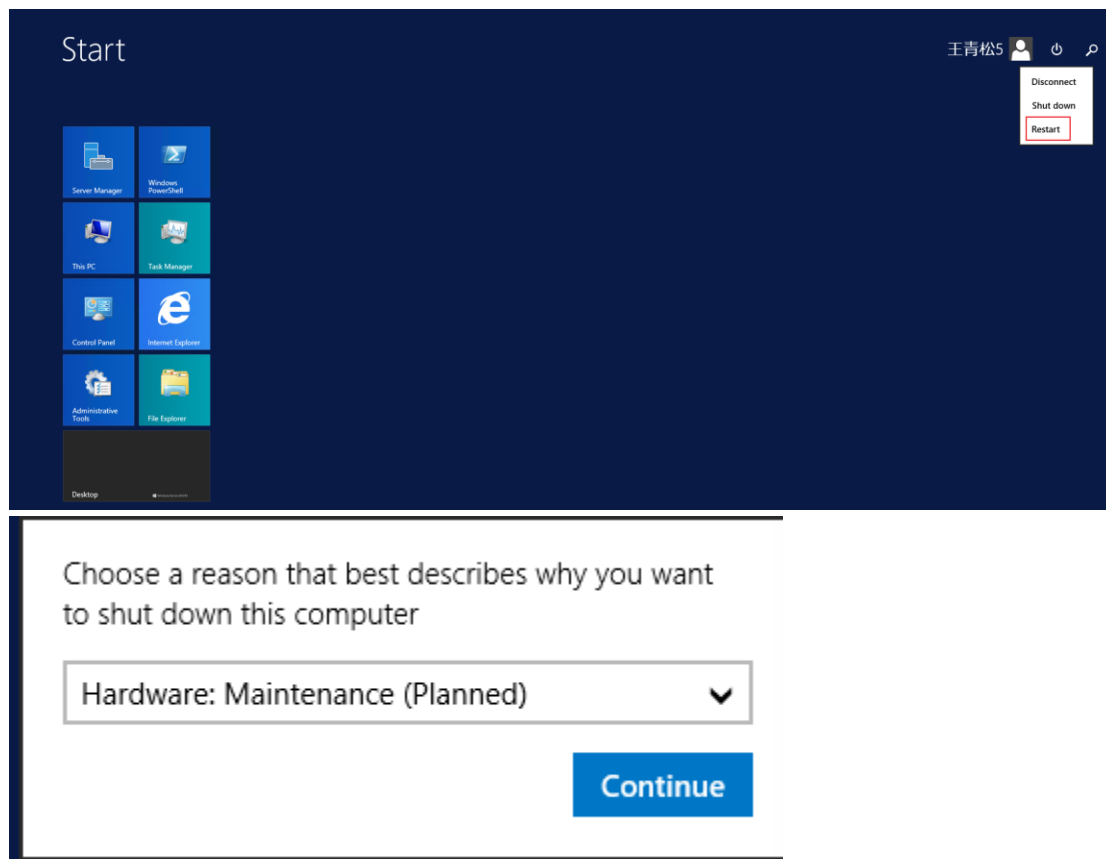


In MPIO Devices interface , you will find that there is an extra hardware message.



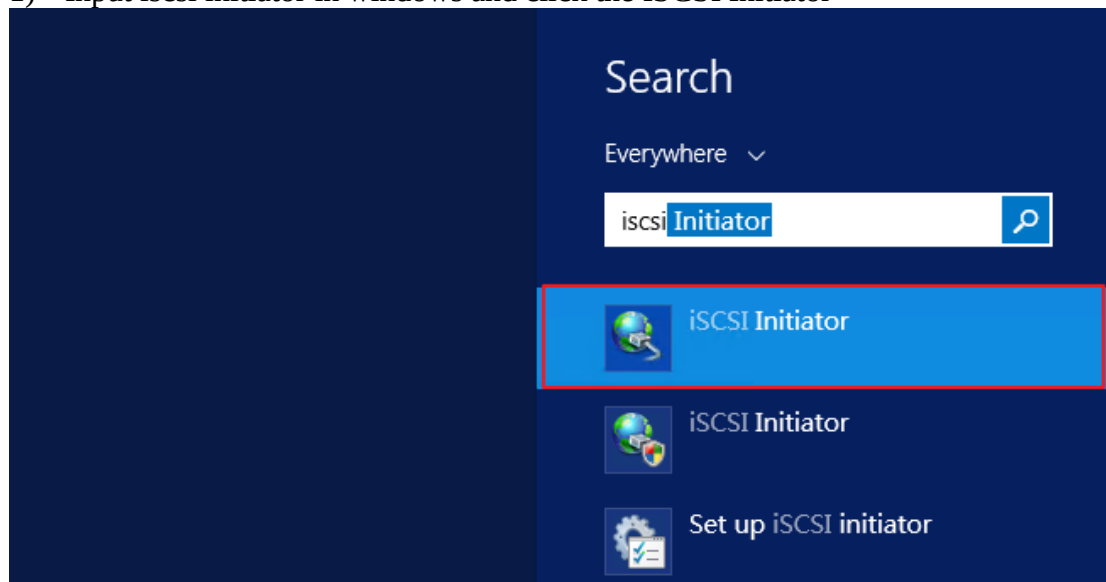
3) Reboot the Windows server 2012

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	7 of 16



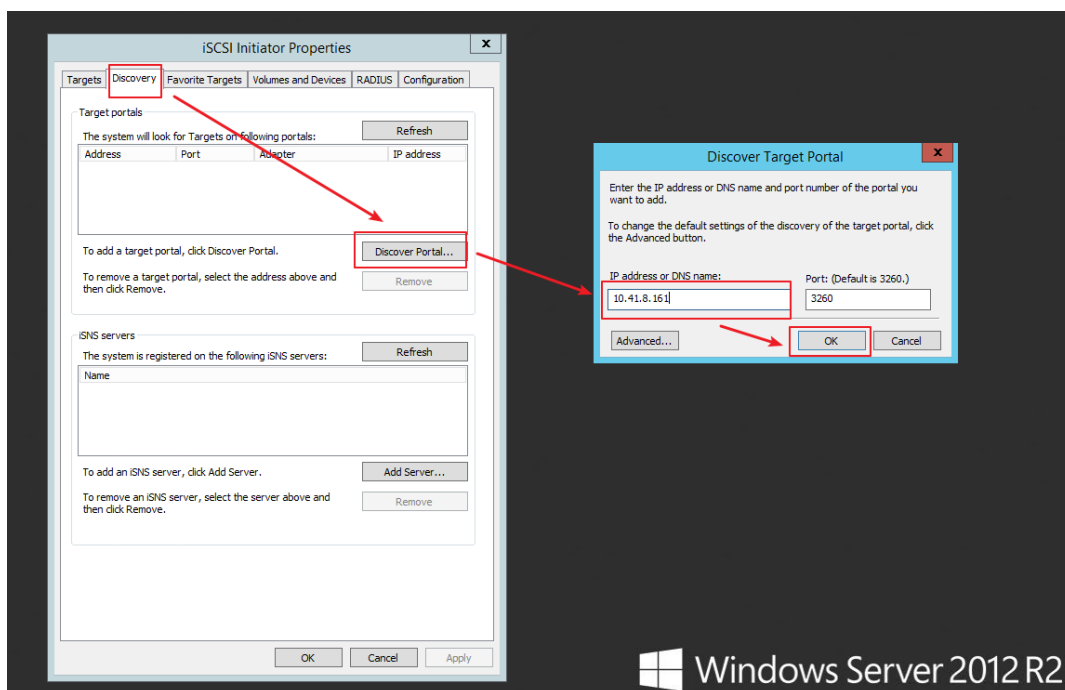
3. Mount iscsi network disk on windows server 2012

- 1) Input iscsi initiator in windows and click the iSCSI Initiator

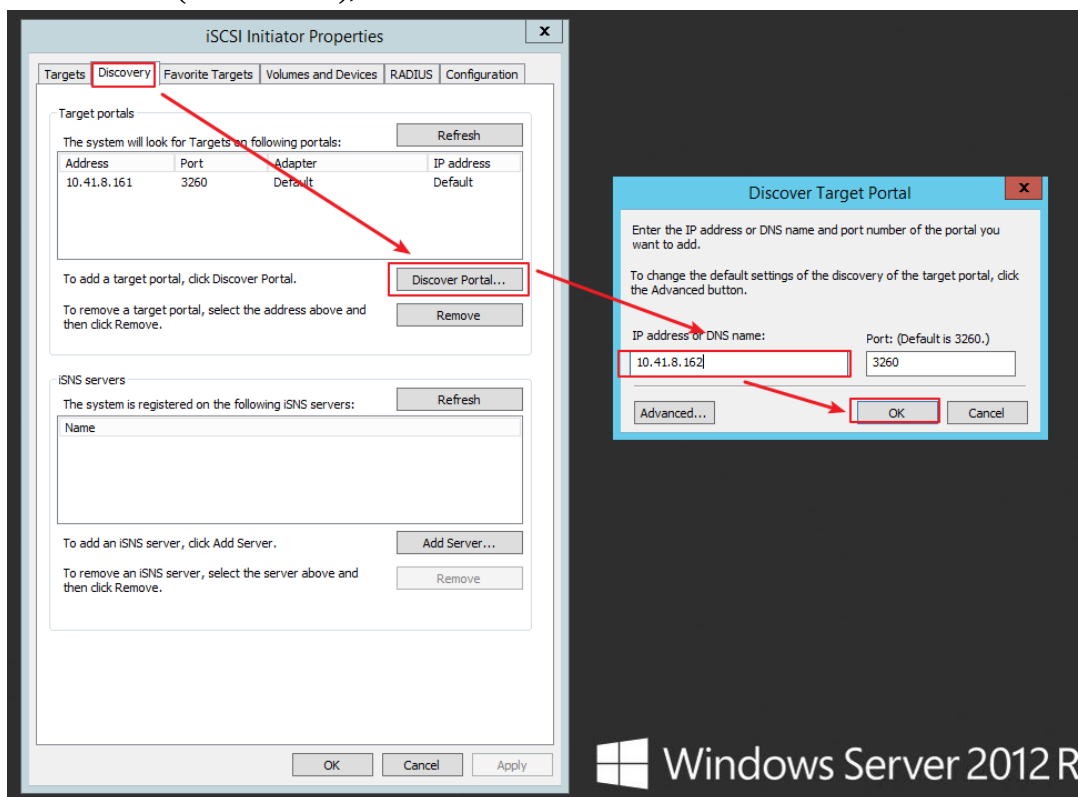


Click the Discover portal button in the iscsi initiator Properties, and input the IP address of Controller A (10.41.8.161), Click OK.

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	8 of 16

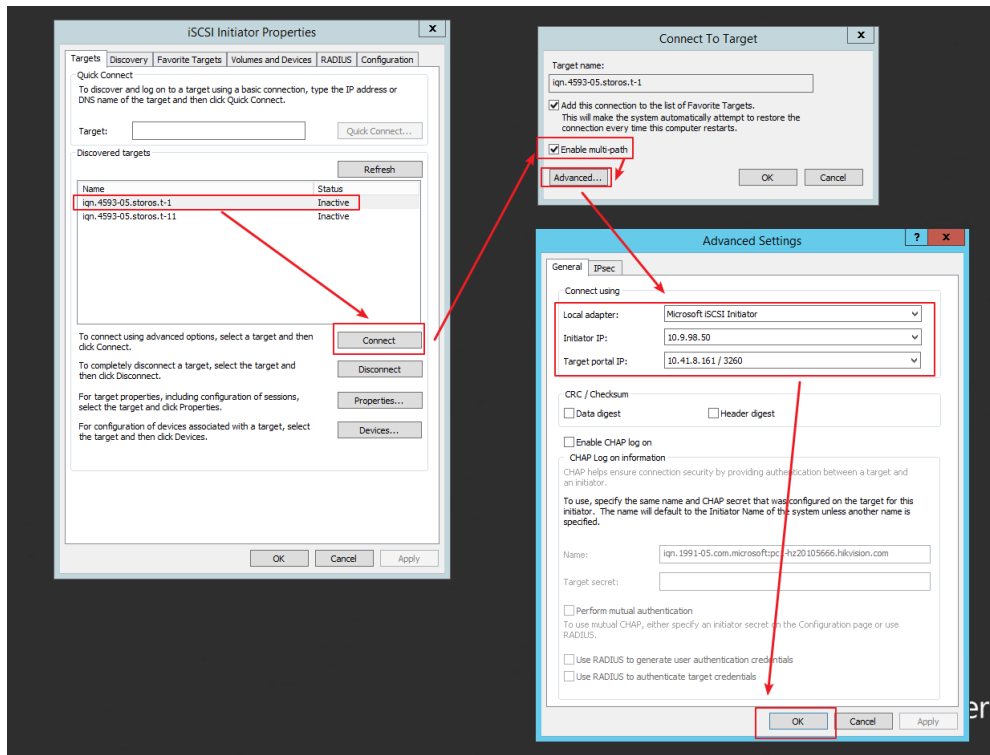


Click the Discover portal button in the iscsi initiator Properties, and input the IP address of Controller B (10.41.8.162), Click OK.

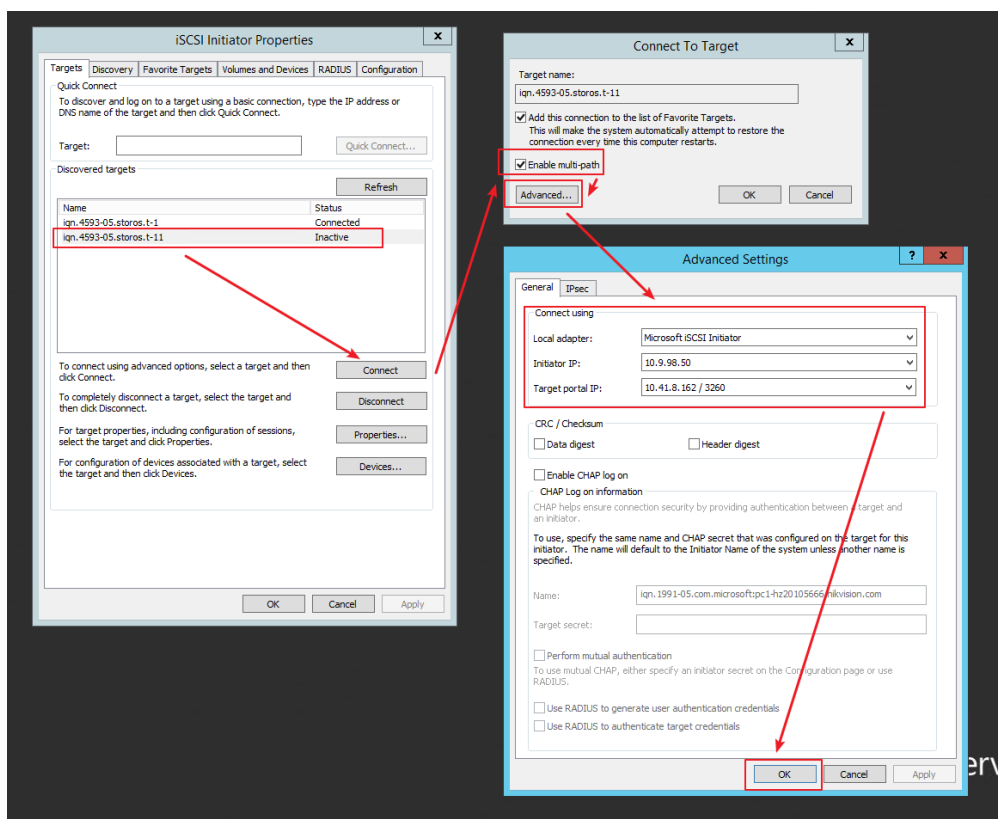


Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	9 of 16

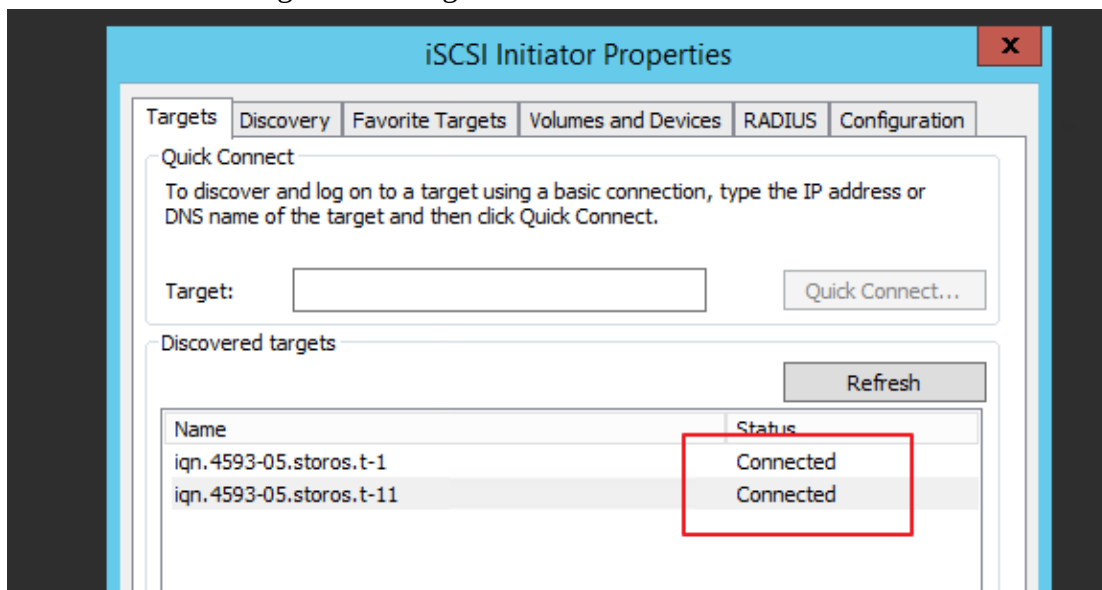
2) Enter the Targets interface, choose two targets separately, click “Connect”, tick the “Enable Multi-path” then click “Advanced”, choose the “Local adapter” “Initiator IP” “Target portal IP” shown as below, at last click “OK” to save.



Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	10 of 16

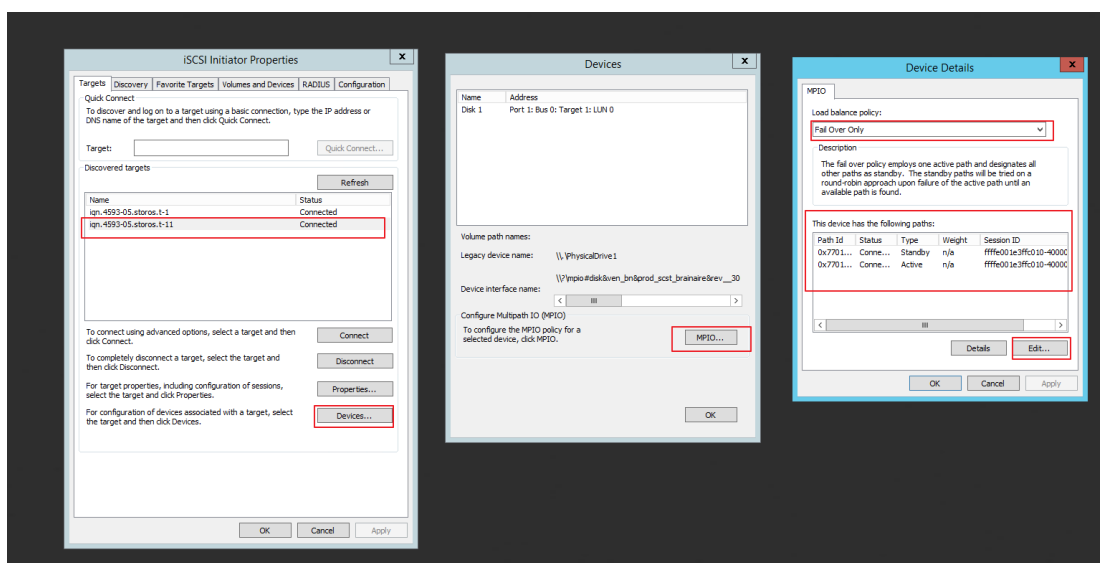
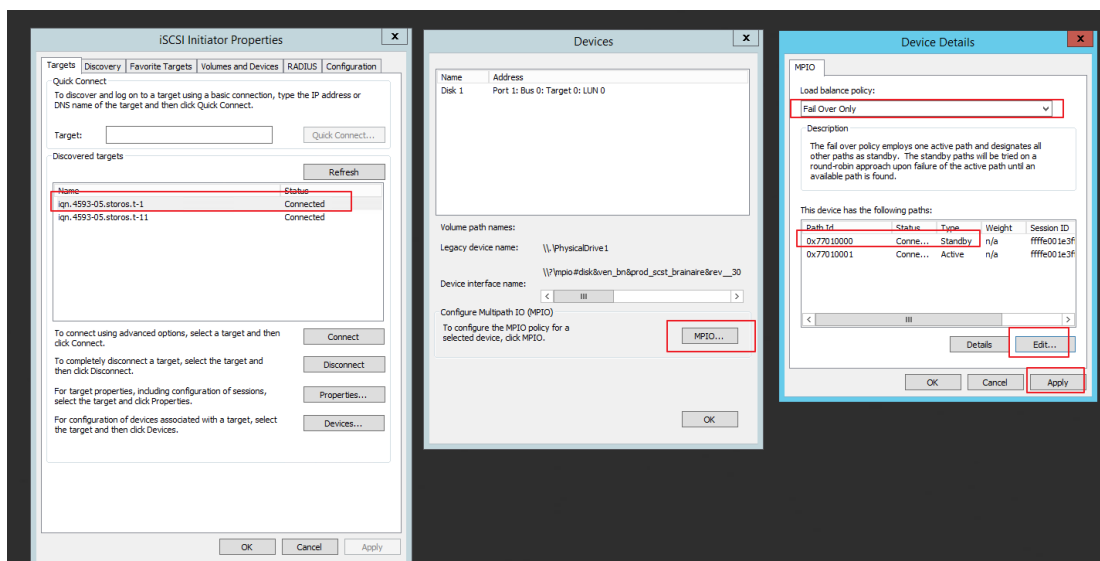


Then the status of target will change from “inactive” to “Connected”



- 3) Enter the Targets interface, choose two targets separately, click “Device”, then click MPIO To enter the “Device details” ,set Load balance policy as “Fail Over Only” , Two paths should be one “Standby” and one “Active”

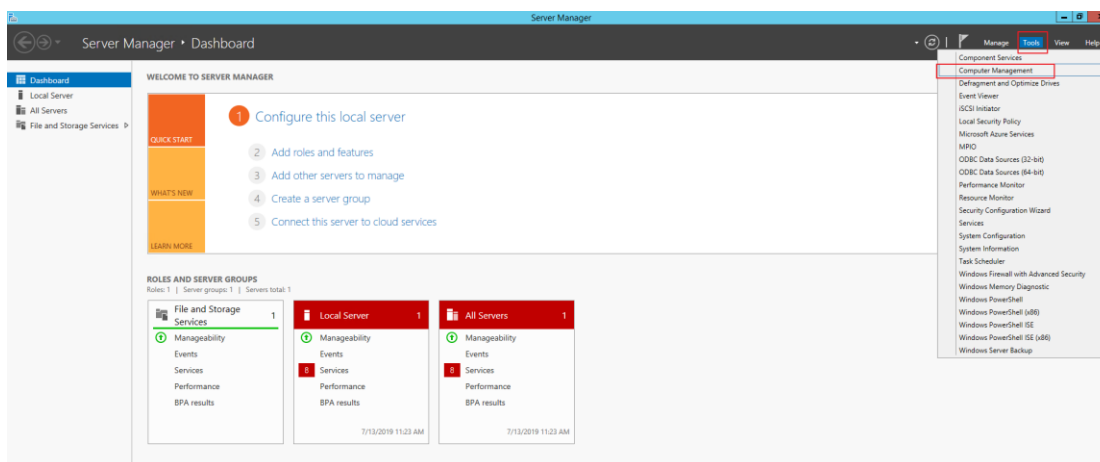
Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	11 of 16



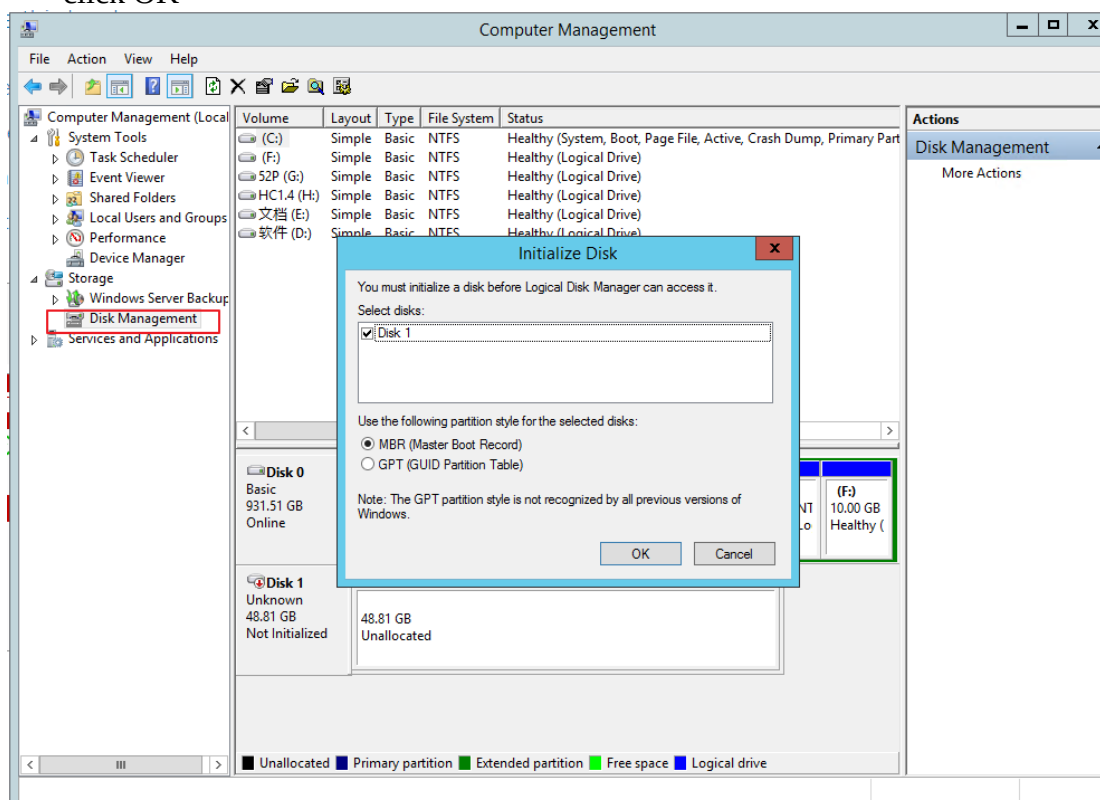
4. Initialize the iscsi disk in the Disk management interface

- 1) Enter the server manager interface, click the “Tools”, then click “Computer Management”

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	12 of 16

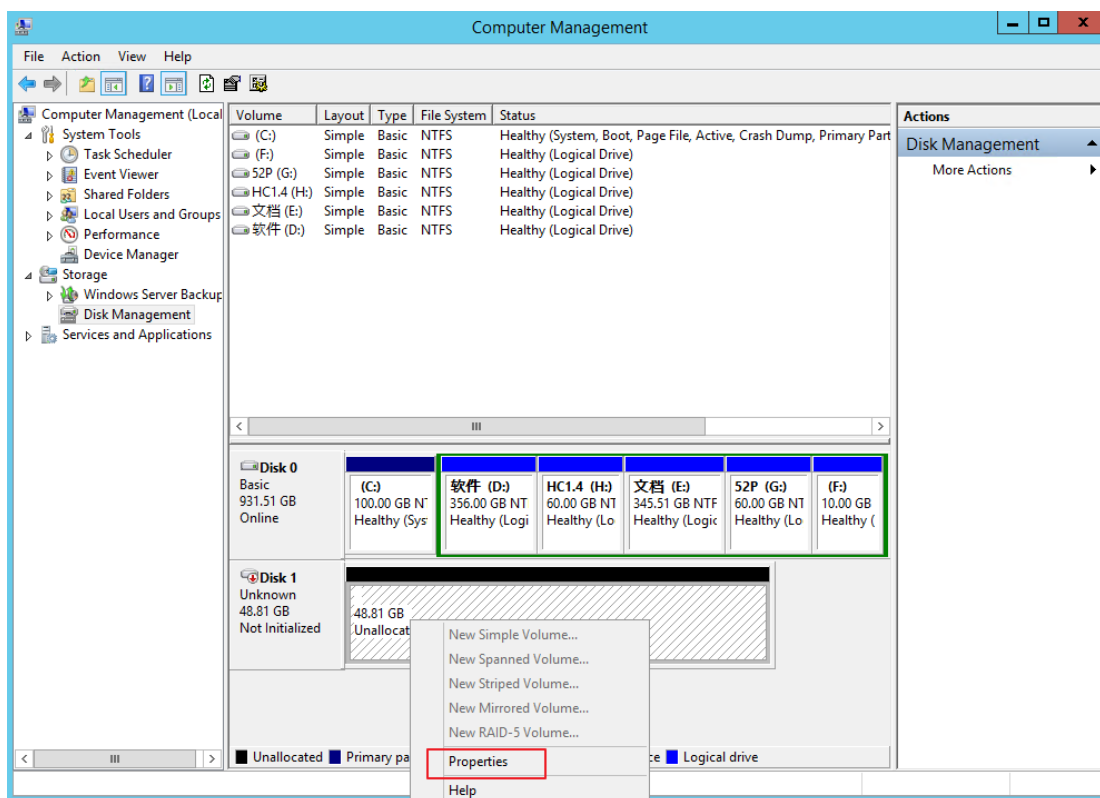


2) Enter the “Disk Management”, it will pop-up a window to let you initialize Disk, click OK

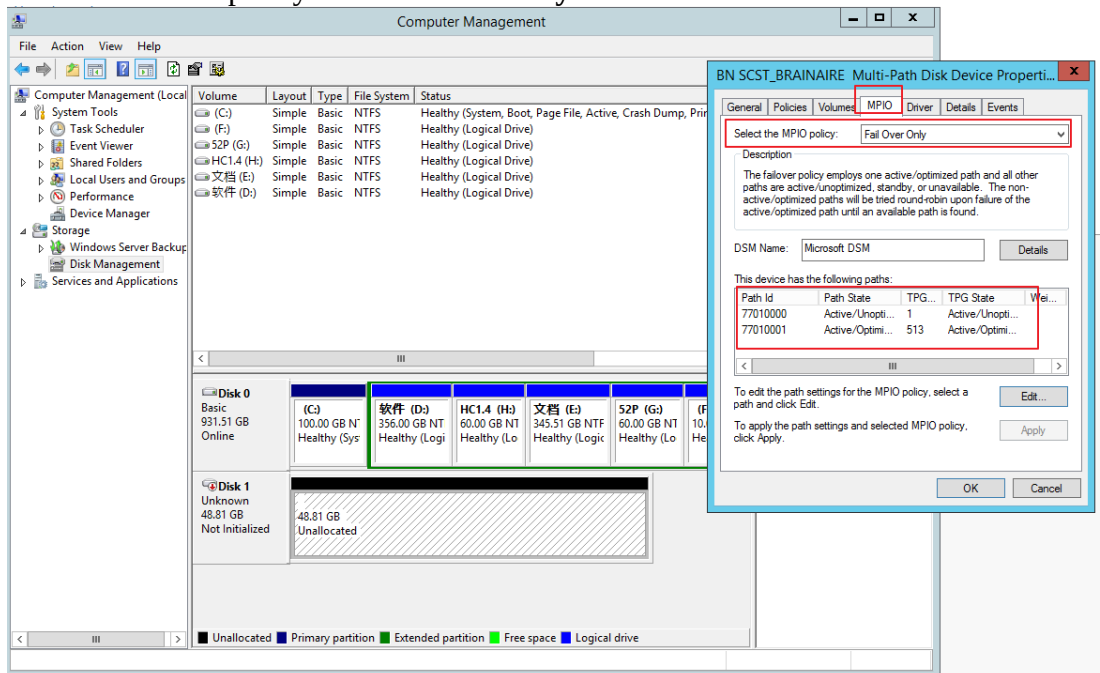


3) You will see the unallocated disk in the Disk bar, Right click the unallocated, click “Properties”

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	13 of 16

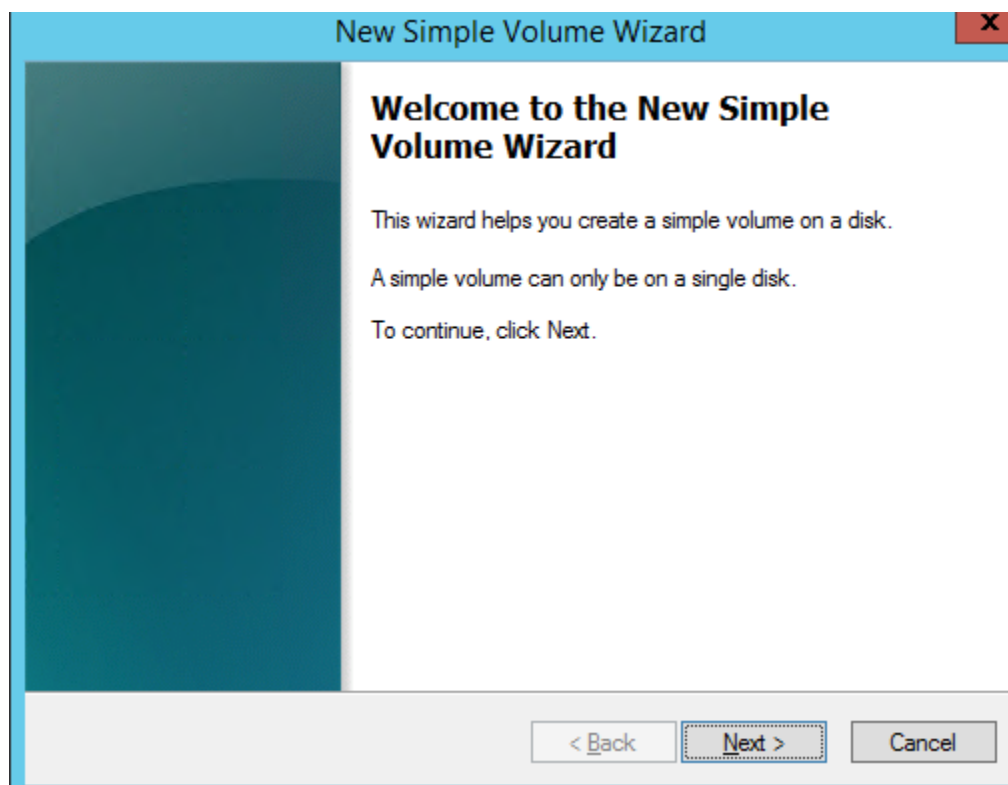
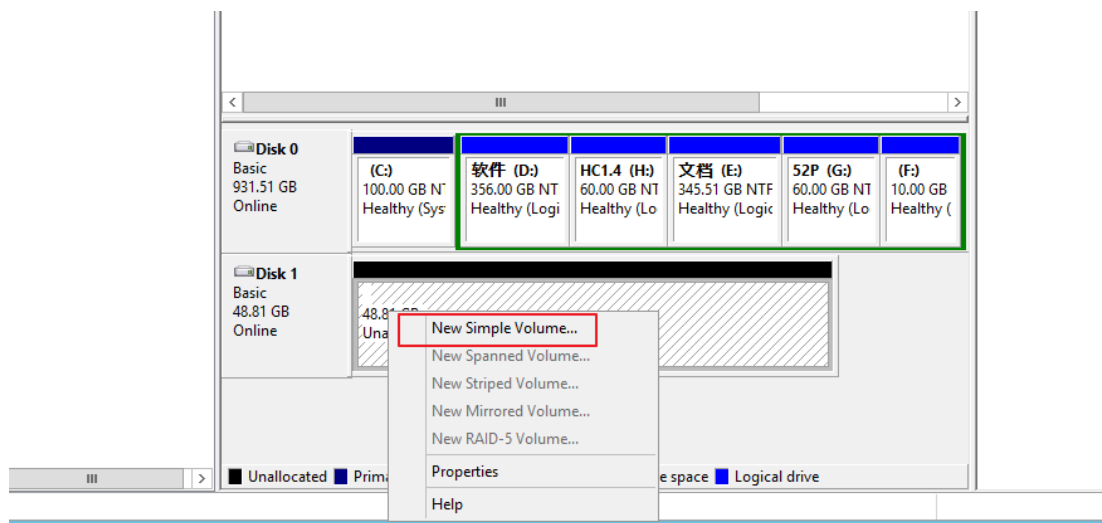


Select the MPIO policy as “Fail Over Only”



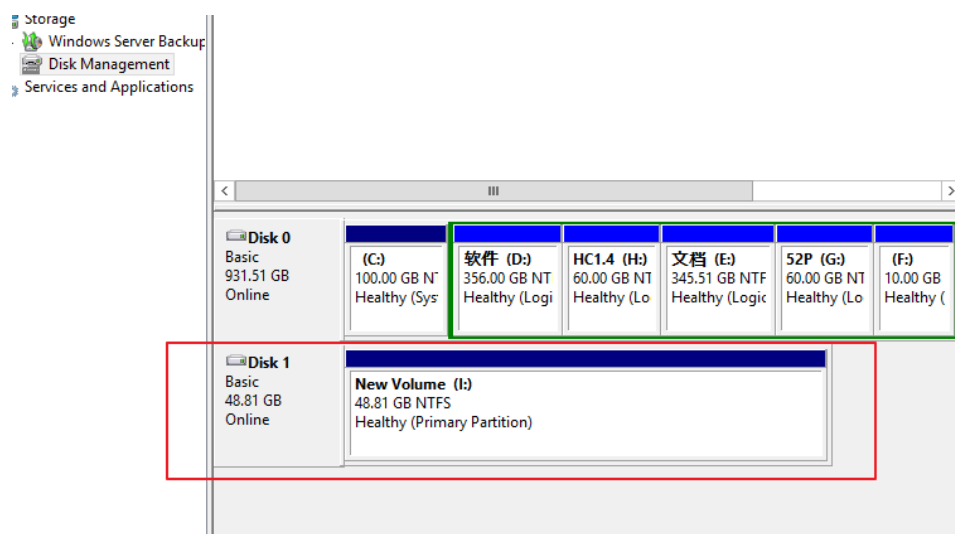
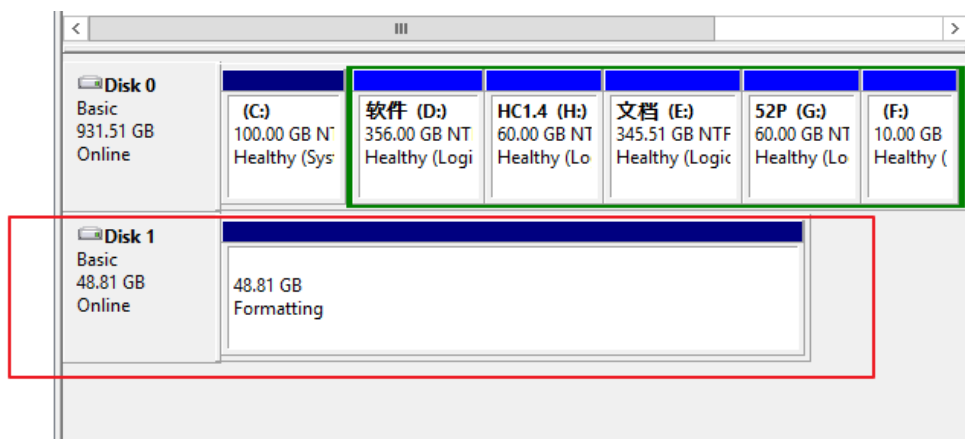
4) Click the Next button in the new simple volume wizard until final step

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	14 of 16

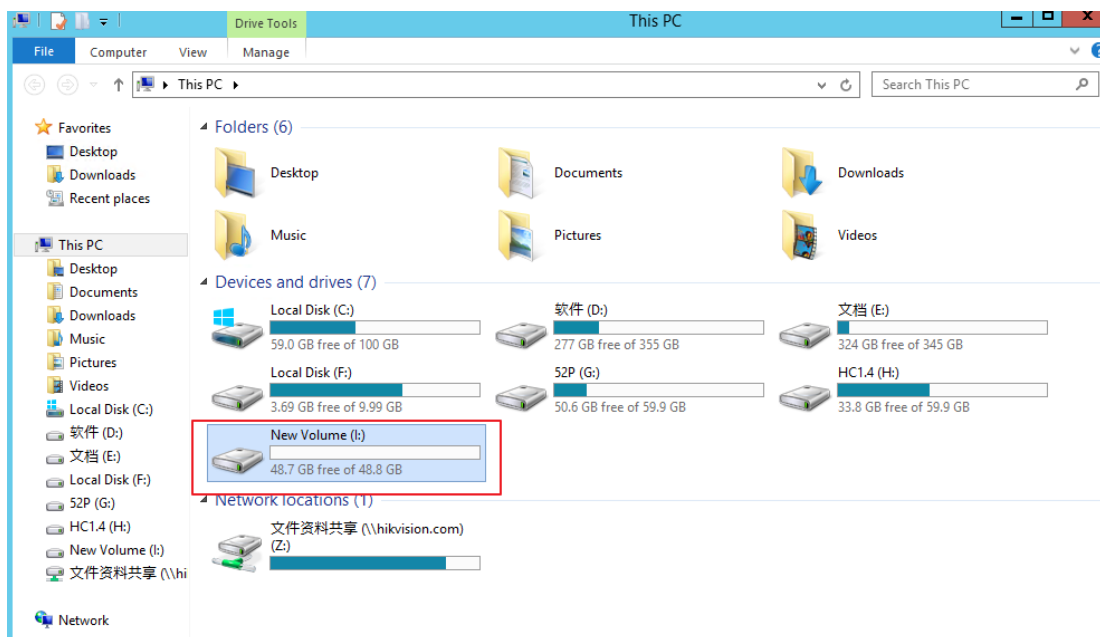


- 5) You can see the status of disk is formatting, you can check the disk in the hard disk drivers after formatting finished

Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	15 of 16



Title:	How to configure Ipsan for windows server 2012 with dual controller Hybrid san	Version:	v1.0	Date:	07/15/2019
Product:	Hybrid SAN, windows server 2012			Page:	16 of 16



First Choice for Security Professionals

HIKVISION Technical Support