

RS16-IP4 Step by Step Instruction on
VMware Virtual Volumes &
Active / Active Port Configuration for
VMware ESX 4.0 vSphere



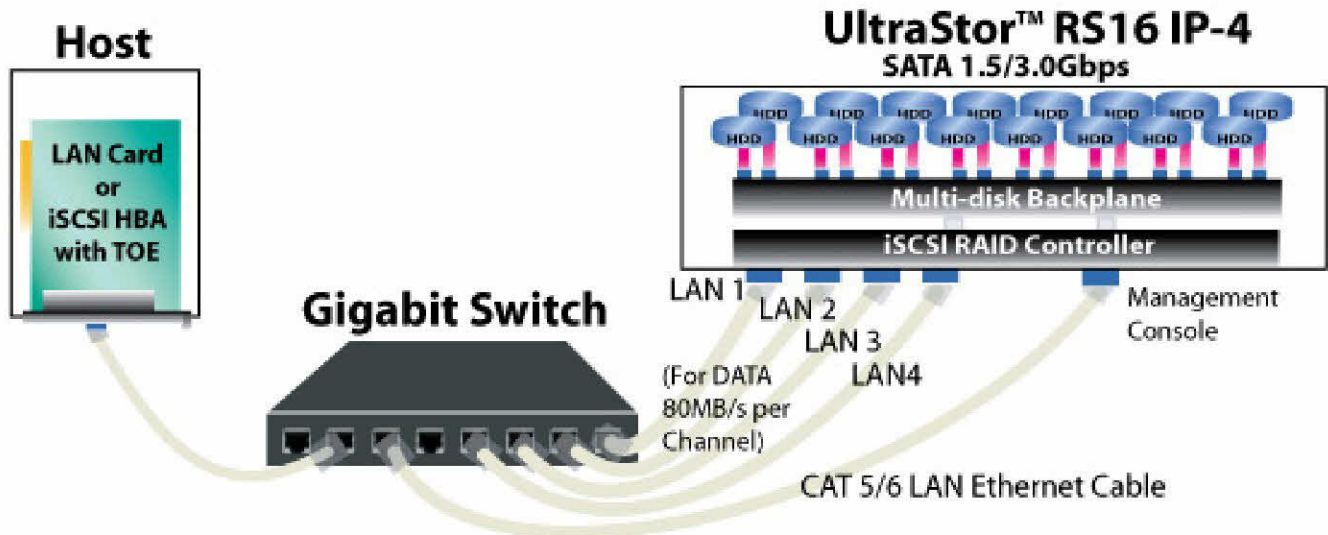
Where Storage Begins



Aug 2009

Enhance Technology, Inc.

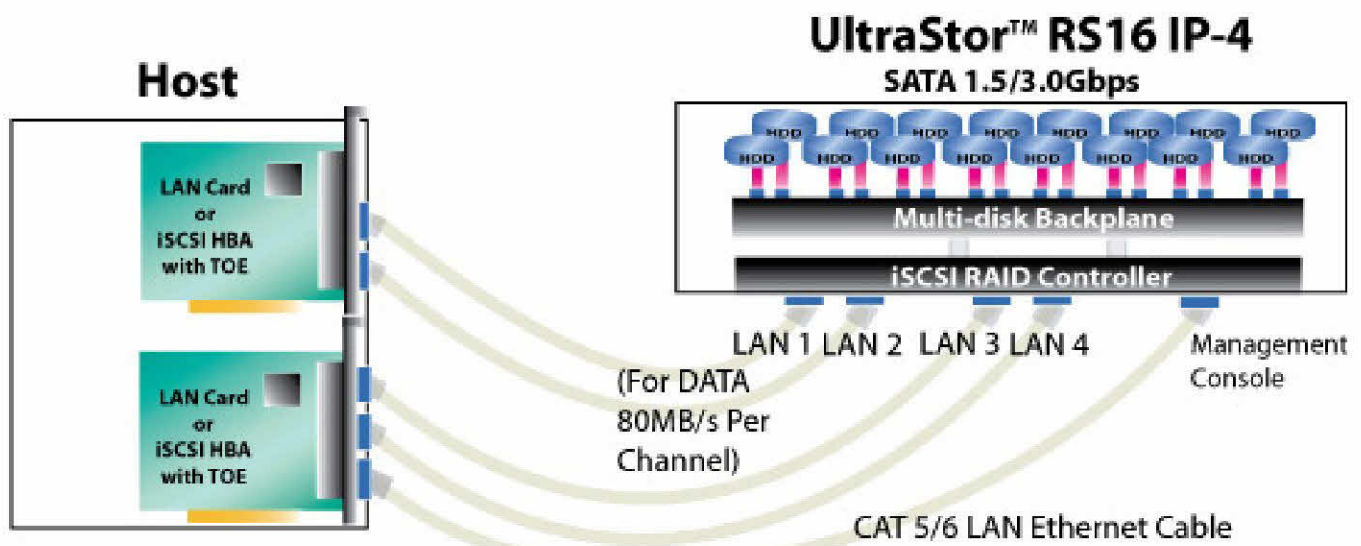
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UltraStor™ RS16 IP-4 (iSCSI)

Quad GbE iSCSI Connectivity via Gigabit Switch LAN

Configuration Diagram A



UltraStor™ RS16 IP-4 (iSCSI)

Quad GbE iSCSI Connectivity via Direct Connect to Host

Configuration Diagram B

Firewall Properties

Remote Access

By default, remote clients are prevented from accessing services on this host, and local clients are prevented from accessing services on remote hosts.

To provide access to a service or client, check the corresponding box. Unless configured otherwise, daemons will start automatically when any of their ports are opened and stop when all of their ports are closed.

	Label	Incoming Ports	Outgoing Ports	Protocols	Daemon
Required Services					
Secure Shell					
<input checked="" type="checkbox"/>	SSH Server	22		TCP	Running
<input type="checkbox"/>	SSH Client		22	TCP	N/A
Simple Network Management Protocol					
<input type="checkbox"/>	SNMP Server	161	162	UDP	N/A
Ungrouped					
<input checked="" type="checkbox"/>	Software iSCSI Client		3260	TCP	N/A
<input checked="" type="checkbox"/>	VMware vCenterAgent		902	UDP	N/A
<input type="checkbox"/>	faultTolerance		80	TCP	N/A
<input type="checkbox"/>	Active Director Kerberos		464,88	TCP,UDP	N/A
<input type="checkbox"/>	Kerberos		749,88	TCP,UDP	N/A
<input type="checkbox"/>	VNC Server	5900-5964		TCP	N/A
<input checked="" type="checkbox"/>	CIM Secure Server	5989		TCP	N/A
<input type="checkbox"/>	Tivoli Storage Manager Agent	1500	1500	TCP	N/A
<input type="checkbox"/>	FTP Server	21		TCP	N/A
<input type="checkbox"/>	NIS Client		111,0-65535	UDP,TCP	N/A
<input type="checkbox"/>	CAARC Server	6051		TCP	N/A
<input type="checkbox"/>	NFS Client		111,2049	UDP,TCP	N/A

Figure 1

- 1.1 VMware Firewall setting for iSCSI connection.
- 1.2 Before setting up the virtual switch connection, please make sure both the entry labeled 'Software iSCSI Client' and 'SSH Server' are checked in the firewall properties.
- 1.3 Click the "OK" button to enable the service and close the screen.

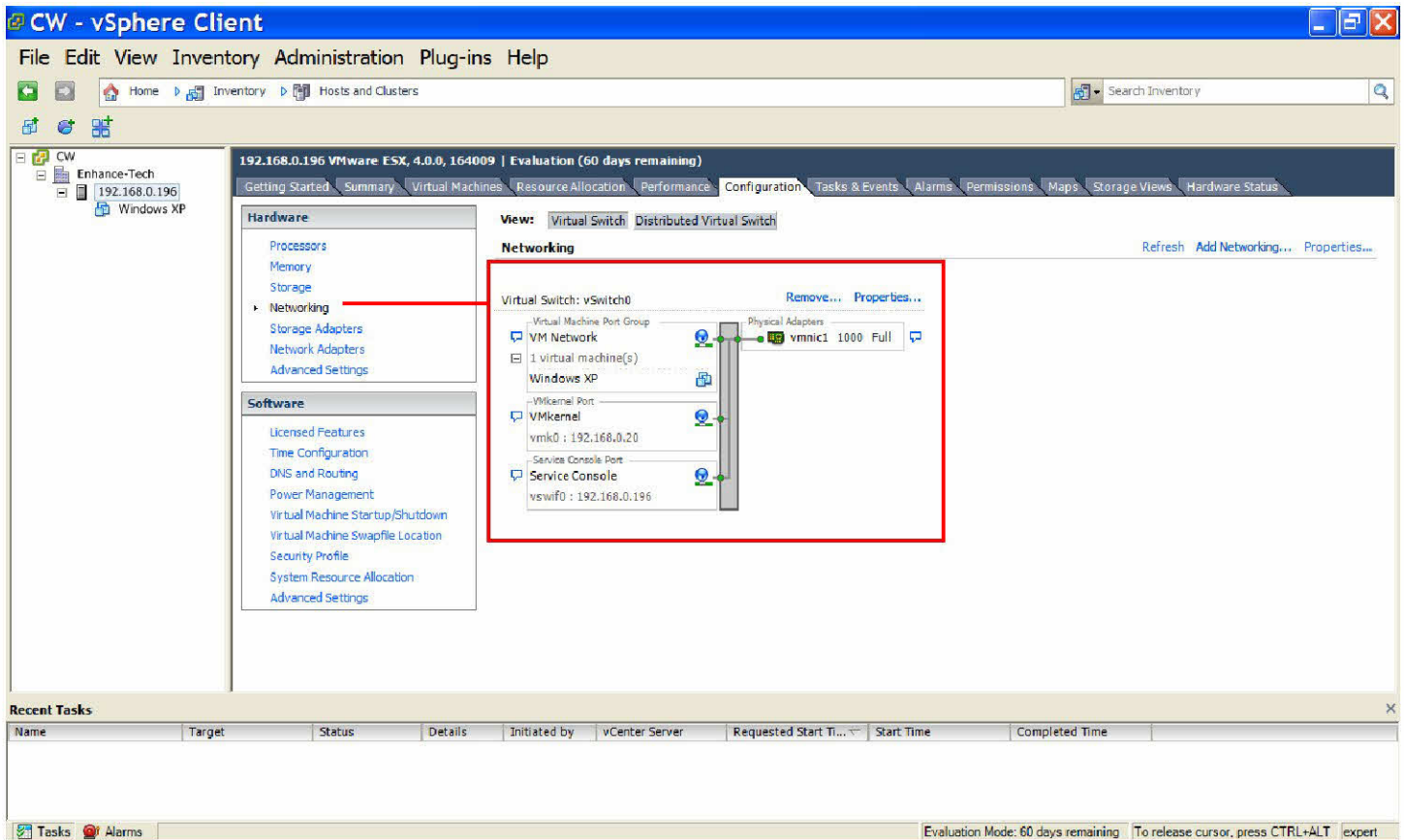
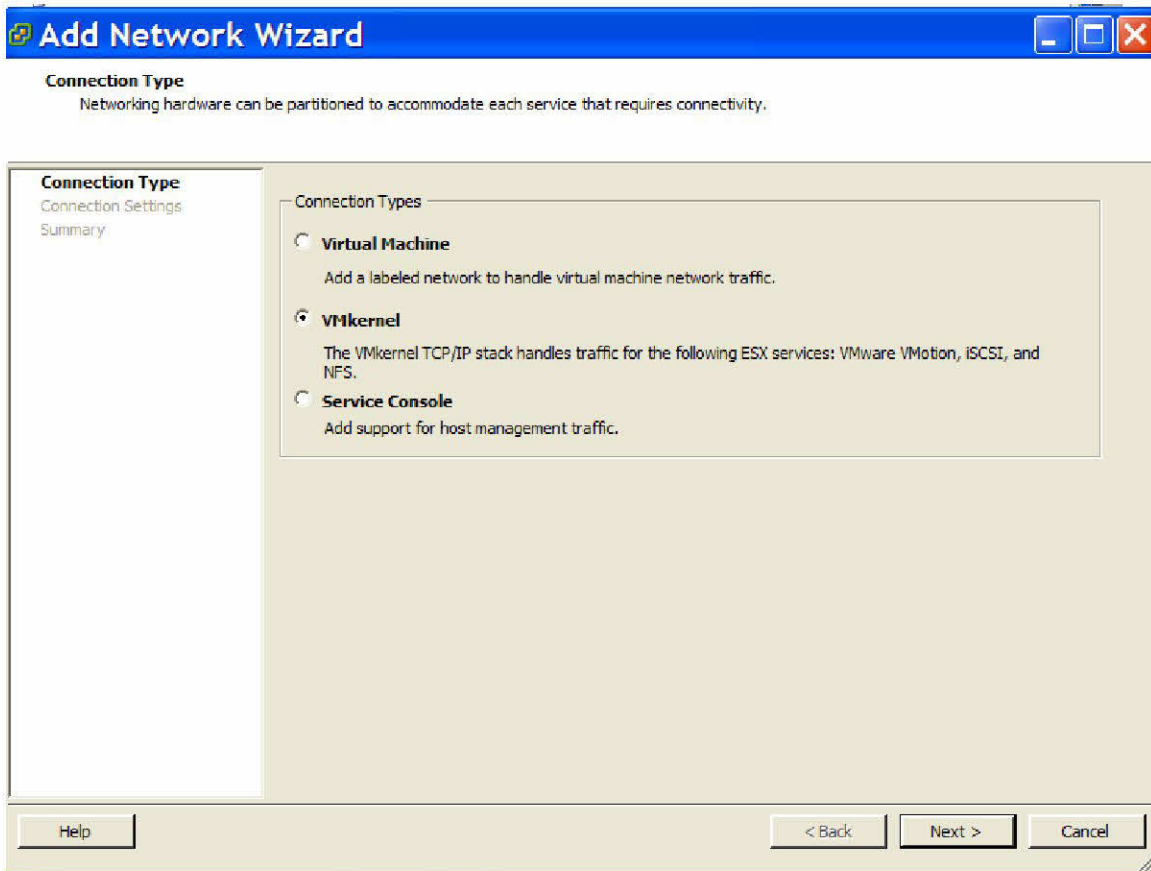


Figure 2

- 2.1. Add 'VMkernel' into 'vSwitch0'.
- 2.2. VMkernel set as 192.168.0.x subnet . (This assumes IP address of 192.168.0.196 on service console for our example)
- 2.3. On the ESX server go to 'Configuration' -> 'Networking' and then click the "Properties" of the first Virtual Switch.



- 2.4. Click “**Add and select VMkernel**” from the choices and click “**Next**”.
- 2.5. Type the IP Address of ‘192.168.0.20’ and Subnet Mask of ‘255.255.255.0’ under IP settings and click “**Next**”.
- 2.6. Click “**Finish**”.
- 2.7. Select “**No**” at the default gateway warning dialog box.
- 2.8. On DNS and routing configuration box, type the same default gateway same as the Service Console default gateway and click “**OK**”.
- 2.9. Click “**Close**” on virtual switch properties.

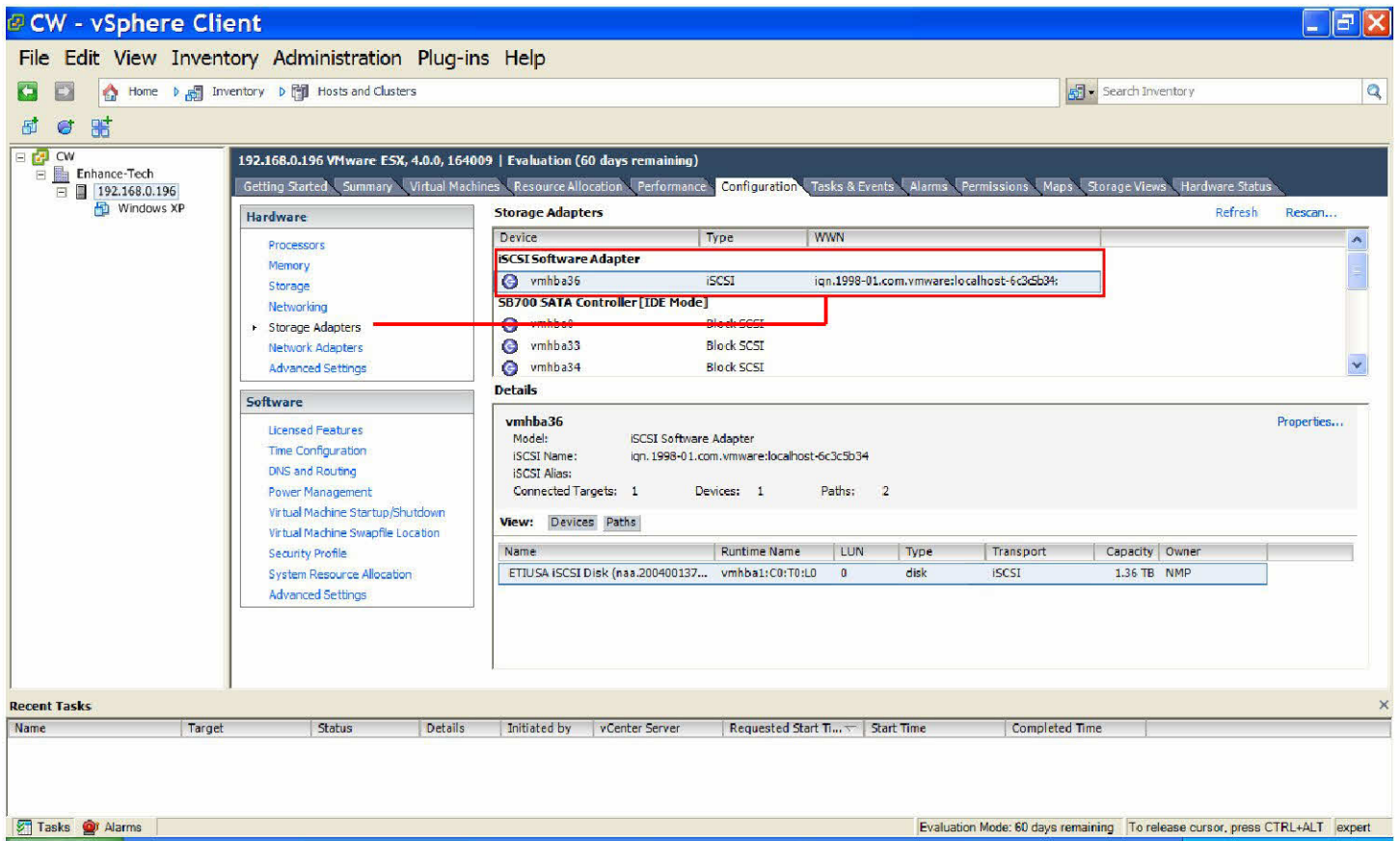
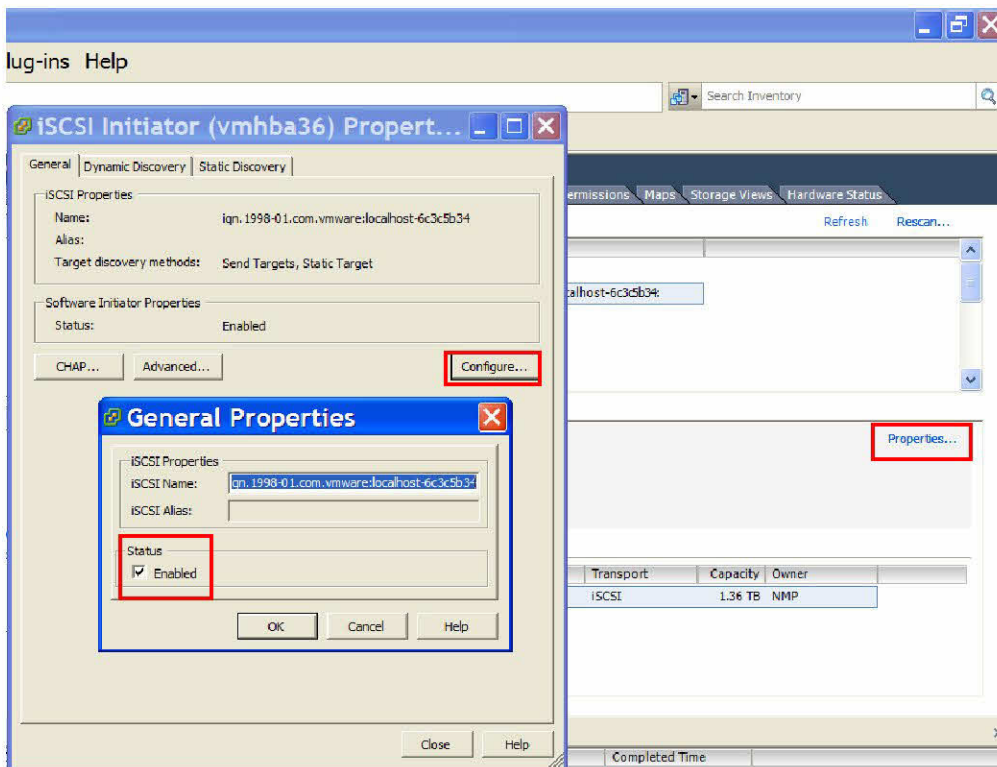


Figure 3

3. Discover the targets.

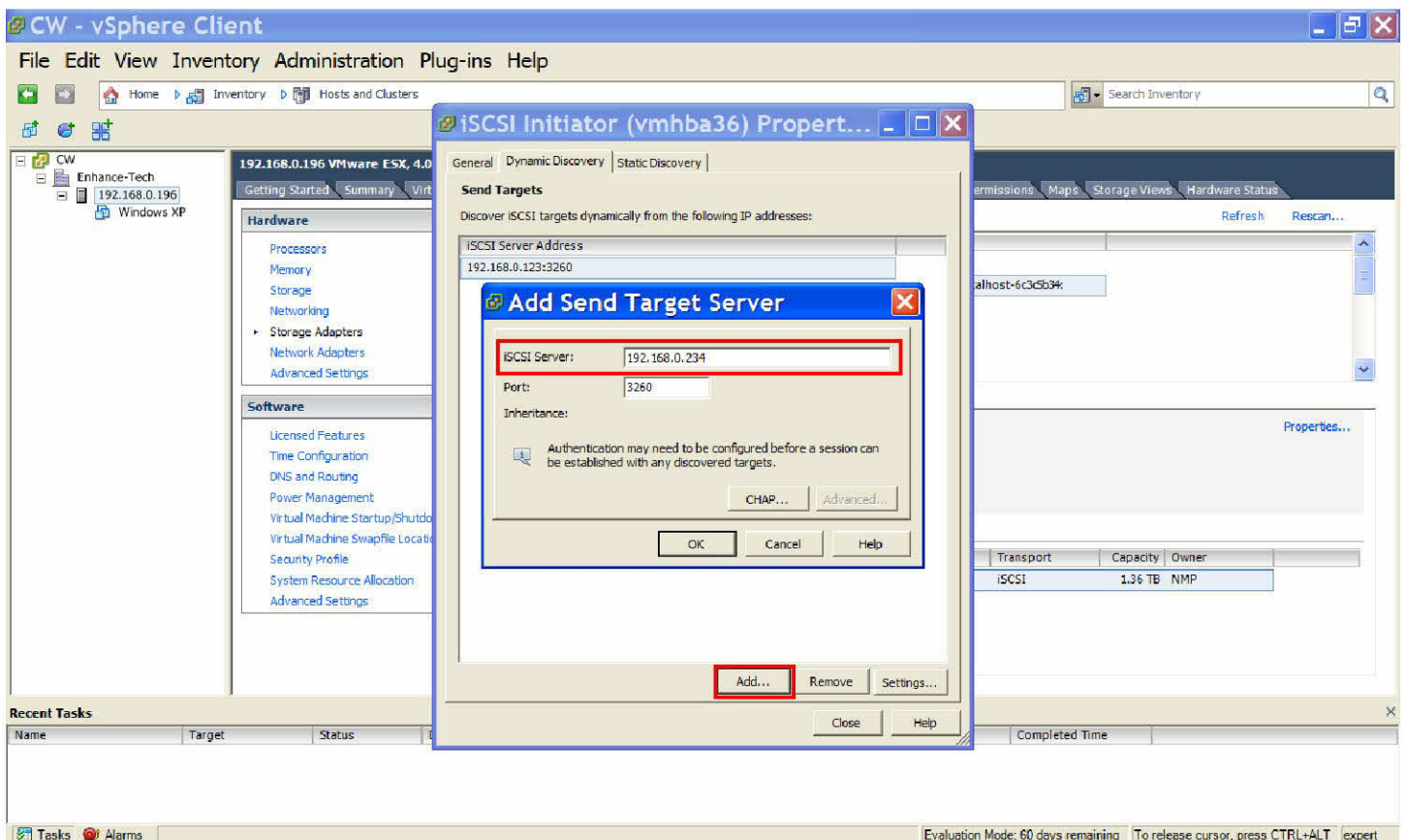
3.1. Go to 'Configuration' -> 'Storage Adapters', select 'iSCSI Software Adapter' and click on 'properties'.



3.2. Click “**Configure**” under General tab and check “**Enabled**”.

3.3. Click “**OK**”.

3.4. Go to ‘Dynamic Discovery’ tab and click “**Add**”.



- 3.5. Type the IP address of RS16-IP4 Link1 (192.168.0.x), click “**OK**” and wait for the server to be added to Send Targets list.
- 3.6. Click “**Add**” and type the IP address of Link2 (192.168.0.x). ← Can be the same subnet
- 3.7. Click “**OK**” and wait for the IP address to appear in the list.

