



Application Notes
Jul 2019

Set up a VMware ESXi Datastore via iSCSI in QNAP Enterprise Storage



Notices

This user manual provides detailed instructions of using the QNAP Enterprise Storage NAS. Please read carefully and enjoy the powerful functions of the Enterprise Storage NAS.

- The QNAP Enterprise Storage NAS is hereafter referred to as the ES NAS or the NAS.
- This manual provides the description of all the functions of the ES NAS. The product you purchased may not support certain functions dedicated to specific models.

Legal Notices

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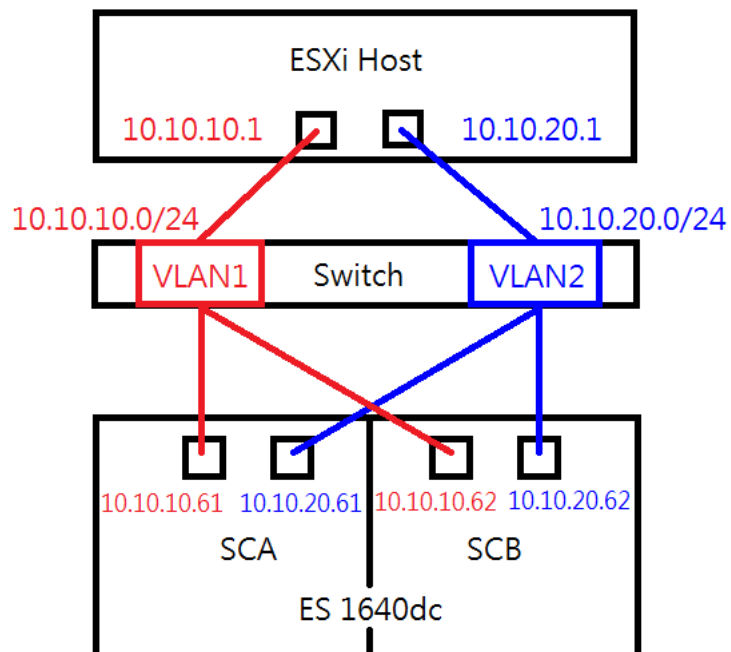
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For VMware vSphere Windows Version

VMware and iSCSI Architecture

To use iSCSI Storage Area Networks (SAN), create a LUN on the iSCSI target (for example: the ES NAS) and mount it as a datastore on a host. The following diagram illustrates the deployment of iSCSI storage in a vSphere environment.



Note:

1 Gigabit Ethernet (1GbE) (or higher) is recommended for use in connecting to an iSCSI target.



Preparation for Installation

ESXi hosts are able to connect to the ES NAS via iSCSI. You can set up datastores (repositories for virtual machines) on the ES NAS that the ESXi hosts discover in your vSphere environment. We will demonstrate this implementation.

In our demonstration, the following configuration is used:

- Storage device: QNAP ES NAS series with QES (NAS operating system) version 1.1.4.
- vSphere ESXi hosts: VMware ESXi 6.0
- IP addressing: Static IP addresses are recommended for both ESXi hosts and the ES NAS.

Server and Storage Network Settings

Server Network Settings		
Role	IP	Description
ESXi host	192.168.217.1	VMware ESXi host
Data Network 1	10.10.10.1	10G Data port 1 in ESXi host
Data Network 2	10.10.20.1	10G Data port 2 in ESXi host

Storage Network Settings		
Setting	Value	Description
SCA Management IP	192.168.217.61	Management IP of controller A
SCA Ethernet1 IP	10.10.10.61	Data port 1 IP of controller A
SCA Ethernet2 IP	10.10.20.61	Data port 2 IP of controller A
SCB Management IP	192.168.217.62	Management IP of controller B
SCB Ethernet1 IP	10.10.10.62	Data port 1 IP of controller B
SCB Ethernet2 IP	10.10.20.62	Data port 2 IP of controller B
Pool allocate to SCA	Pool1	RAID6 pool at controller A

With the information listed in the above table, assuming a 100GB LUN is deployed on ES1640dc v2 controller A (SCA), it can be mounted using the following steps on the ESXi host.



Confirm these details before configuration

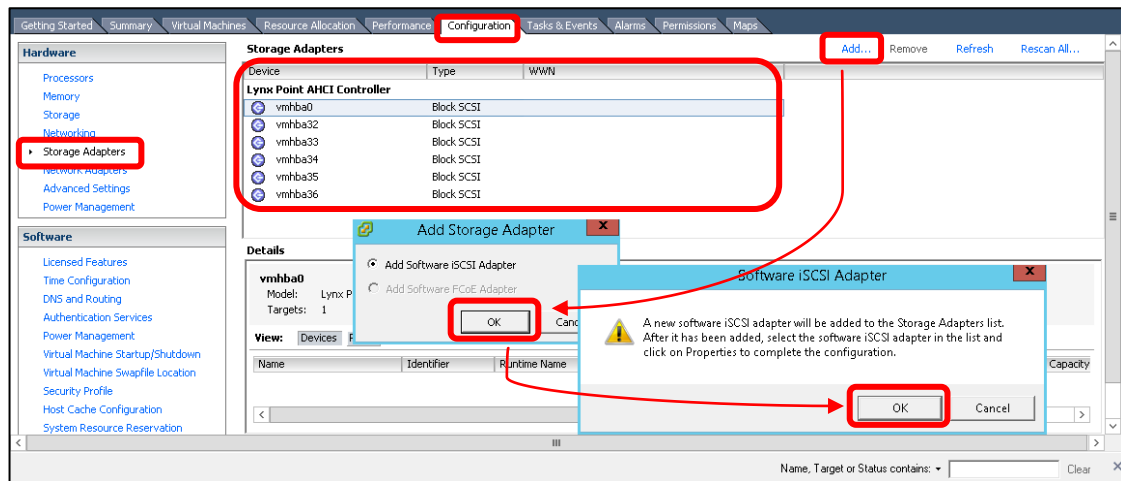
- All data ports, from the ESXi host and the ES NAS, should be in the same subnet.
- Available pools must be built before configuring iSCSI LUN on the ES NAS. For more information on creating a storage pool, read [Network and Storage Settings of ES NAS High-Availability Network Storage Services](#).

Definition

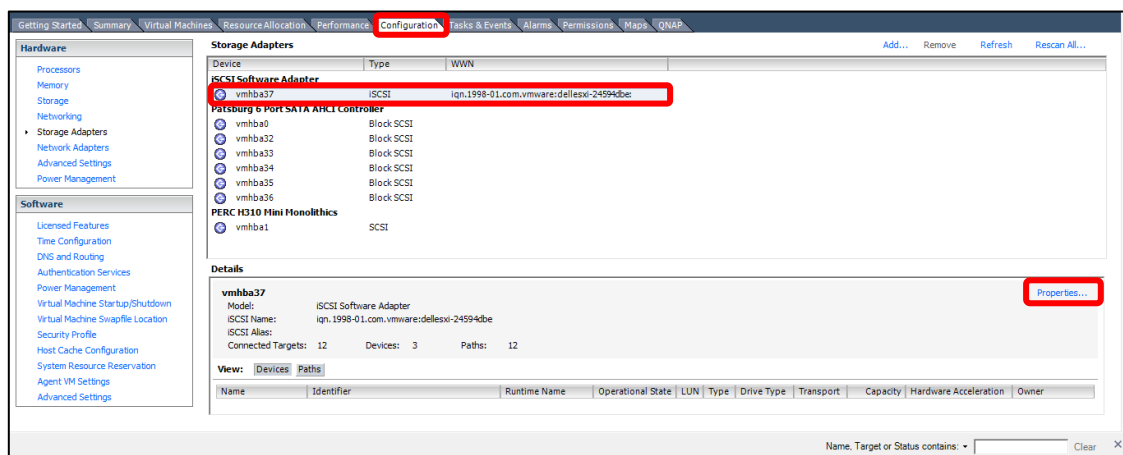
In this document, the VMware ESXi host is defined as the iSCSI Initiator, and the QNAP ES NAS is the iSCSI Target.

Add iSCSI Targets on VMware ESXi Hosts

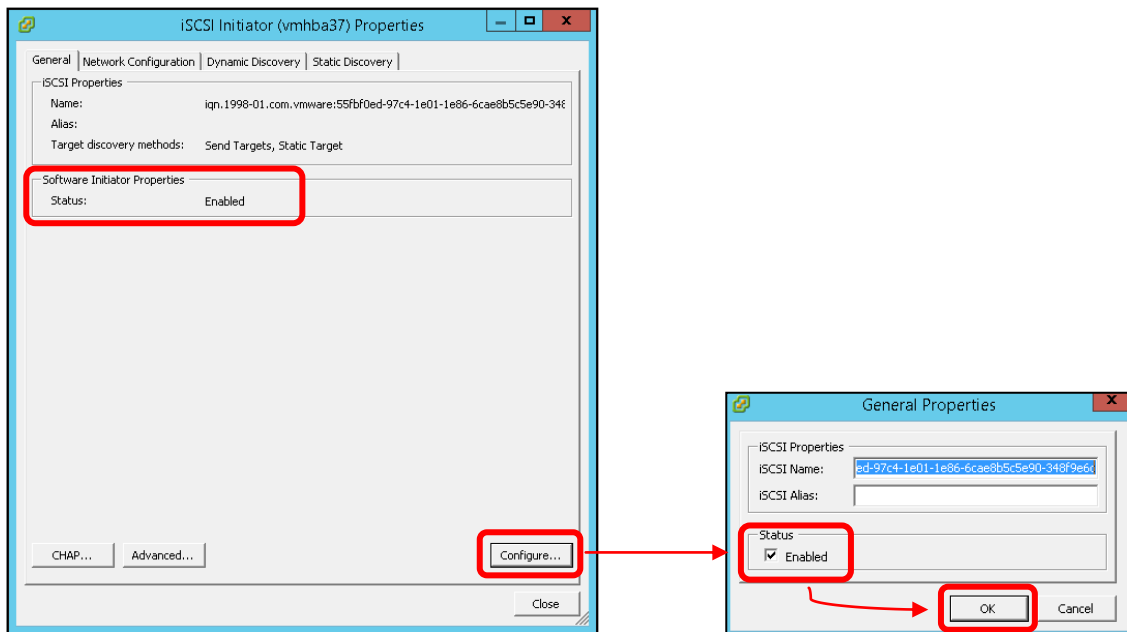
Step 1: Log in to vSphere Client, and select a host from the inventory panel. Go to the “Configuration” tab and click “Storage Adapters” in the Hardware panel. Click “Add...” on the top right of the window to add a storage adapter.



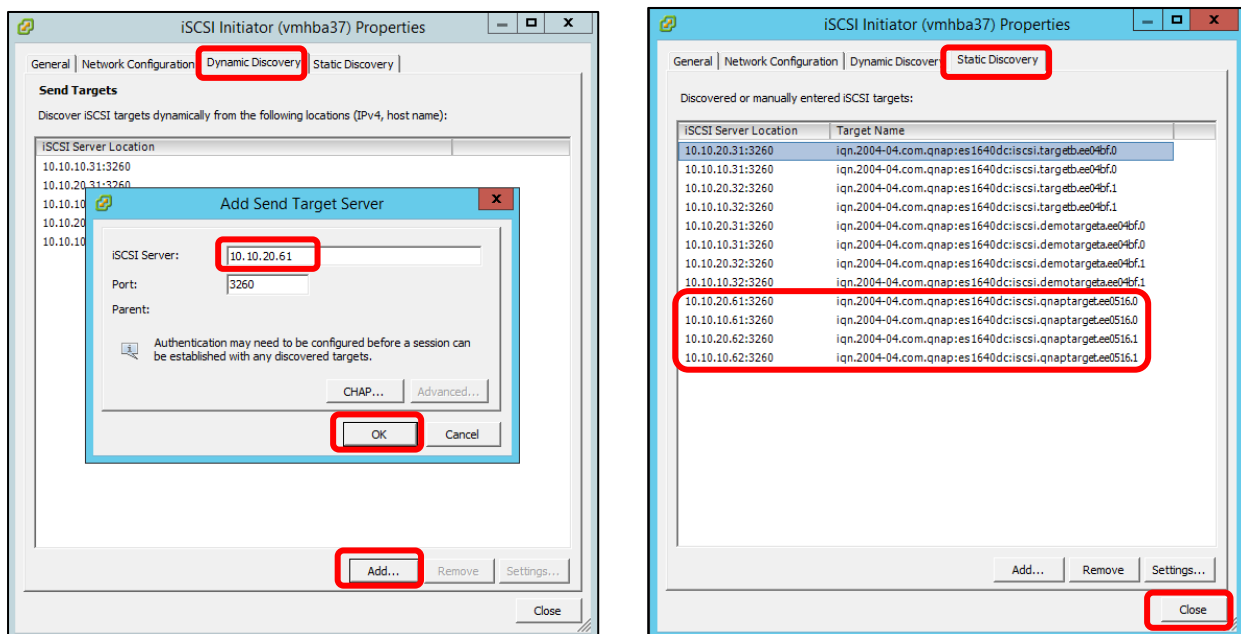
Step 2: A new software iSCSI adapter will be added to the Storage Adapter list. Select the new software iSCSI adapter on the list and click “Properties”.



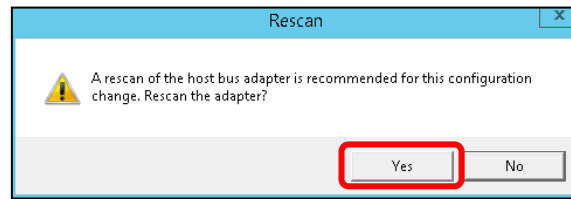
Step 3: Ensure the adapter is enabled. If not, click “Configure...”, check "Enabled" and click “OK”.



Step 4: After enabling the adapter, you must set up target discovery addresses so that the iSCSI adapter can determine which storage resource on the network is available. Go to the “Dynamic Discovery” tab and click “Add...” to add the data ports’ IP addresses of both controllers. Then go to the “Static Discovery” tab to view the names and IP addresses of these targets.



Step 5: Click “Close” to close the Properties window. The “Rescan” window will appear. Click “Yes”.



Note:

If CHAP is enabled in the ES NAS iSCSI Target, you should have the same configuration in “CHAP...” in the “Add Send Target Server” window.

Step 6: You can now find the corresponding iSCSI device for the added iSCSI adapter.

Storage Adapters

Device	Type	WWN
vmhba37	iSCSI	iqn.1998-01.com.vmware:dellexi-24594db
vmhba0	Block SCSI	
vmhba32	Block SCSI	
vmhba33	Block SCSI	
vmhba34	Block SCSI	
vmhba35	Block SCSI	
vmhba36	Block SCSI	
PERC H310 Mini Monolithics		
vmhba1	SCSI	

Details

vmhba37

Model: iSCSI Software Adapter
 iSCSI Name: iqn.1998-01.com.vmware:dellexi-24594db
 iSCSI Alias:
 Connected Targets: 12 Devices: 3 Paths: 12

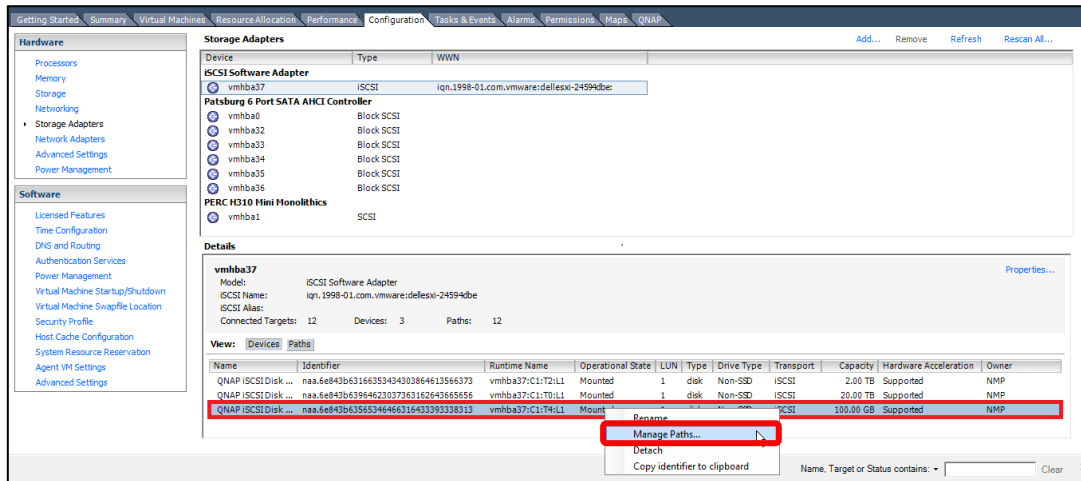
View: Devices Paths

Name	Identifier	Runtime Name	Operational State	LUN	Type	Drive Type	Transport	Capacity	Hardware Acceleration	Owner
QNAP iSCSI Disk ...	naa.6e843b631663534303864613566373	vmhba37:C1:T2:L1	Mounted	1	disk	Non-SSD	iSCSI	2.00 TB	Supported	NMP
QNAP iSCSI Disk ...	naa.6e843b63984623037363162643665656	vmhba37:C1:T0:L1	Mounted	1	disk	Non-SSD	iSCSI	20.00 TB	Supported	NMP
QNAP iSCSI Disk ...	naa.6e843b63565346466316433393338313	vmhba37:C1:T4:L1	Mounted	1	disk	Non-SSD	iSCSI	100.00 GB	Supported	NMP

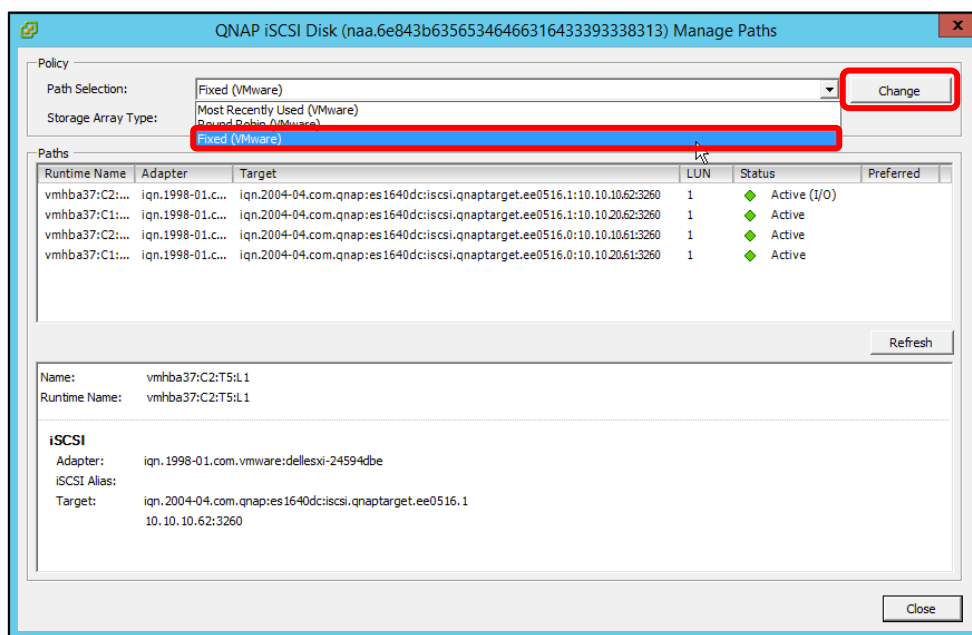


Configure the Path for iSCSI Connection

Step 1: Right-click on an iSCSI disk and select “Manage Paths...”

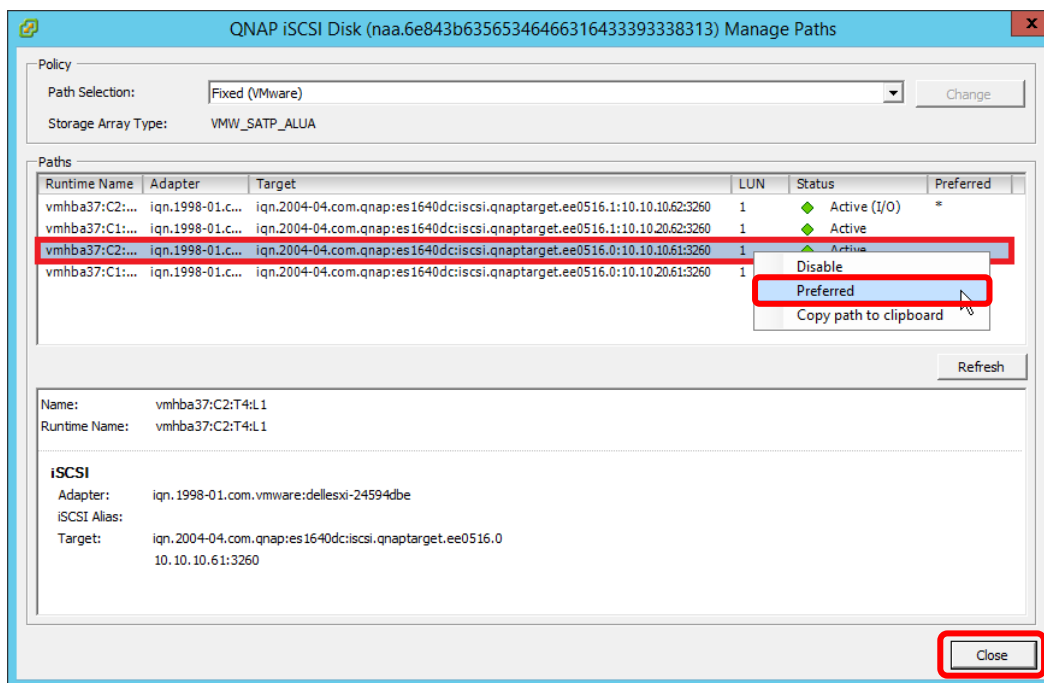


Step 2: Select “Fixed (VMware)” from the “Path Selection” drop-down menu as the path selection policy. Then click “Change” to apply the changes.





Step 3: Specify the preferred path by right-clicking the path you want to assign as the preferred path, and select “Preferred”. Then click “OK” to save your settings and exit the dialog box.



Note :

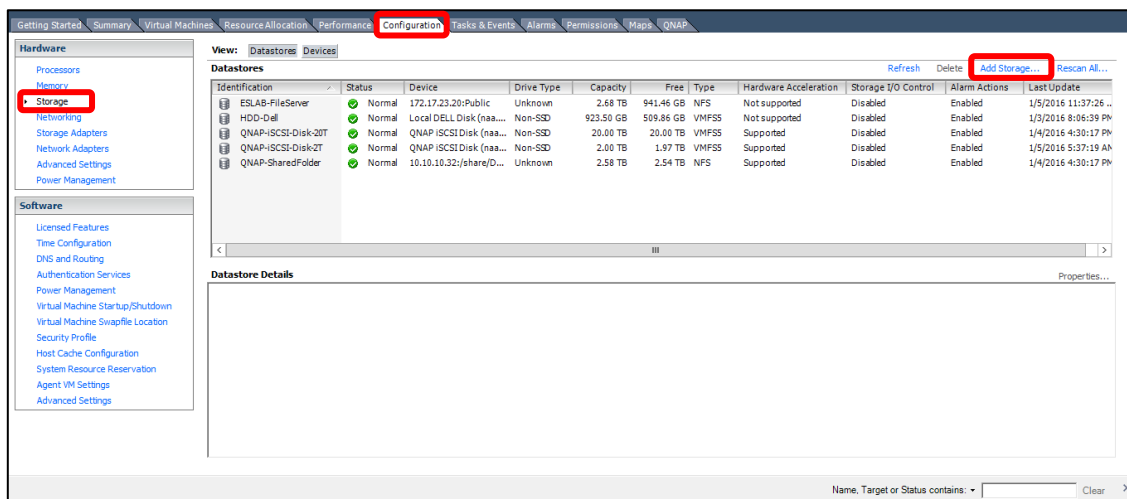
For better iSCSI performance, select the path or Ethernet port which belongs to the Storage Controller that owns the iSCSI LUN. In our example, we chose ports (10.10.10.61/10.10.20.61) which belong to SCA on which Pool 1 was created.

The data port shows below the Target name.

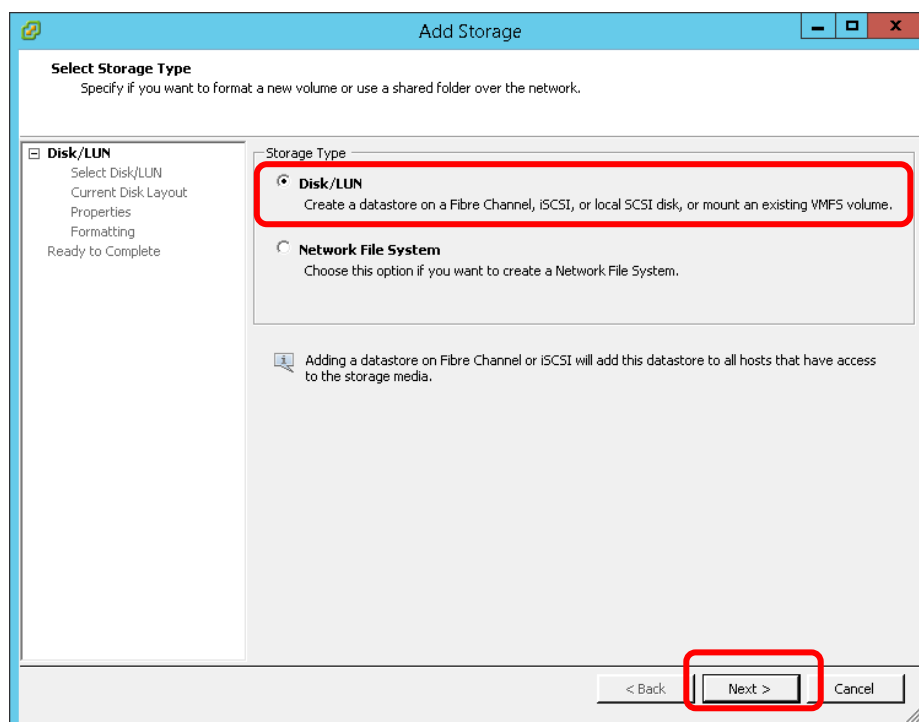
Create a VMFS Datastore in the vSphere Client

Before creating datastores, use the “Rescan” function for the adapters to discover newly-added storage devices.

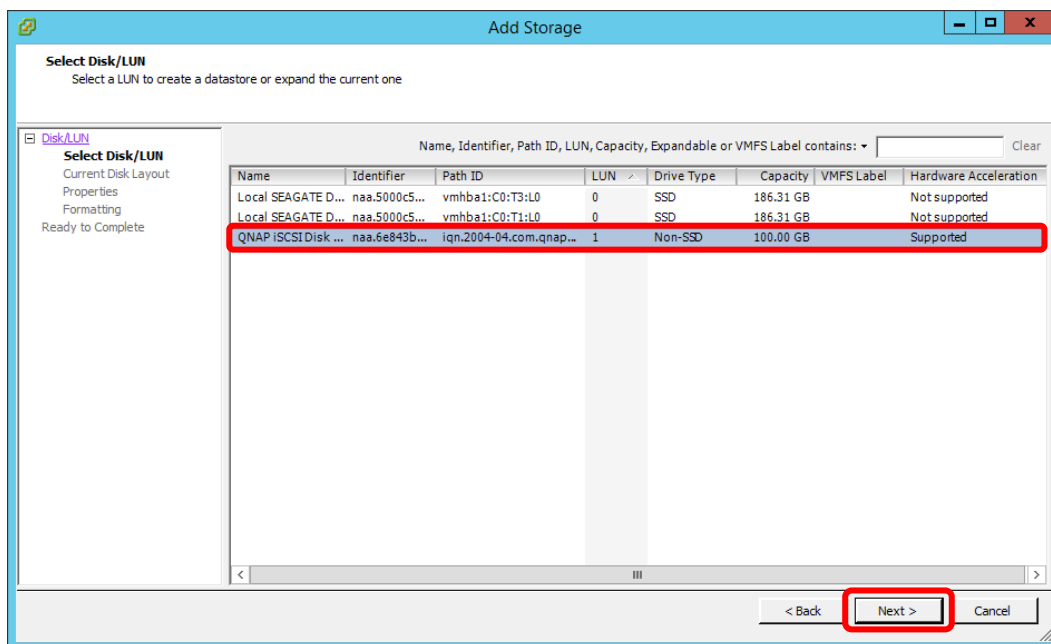
Step 1: Go to the “Configuration” tab and click “Storage” in the Hardware panel. Then click “Datastores” > “Add Storage”.



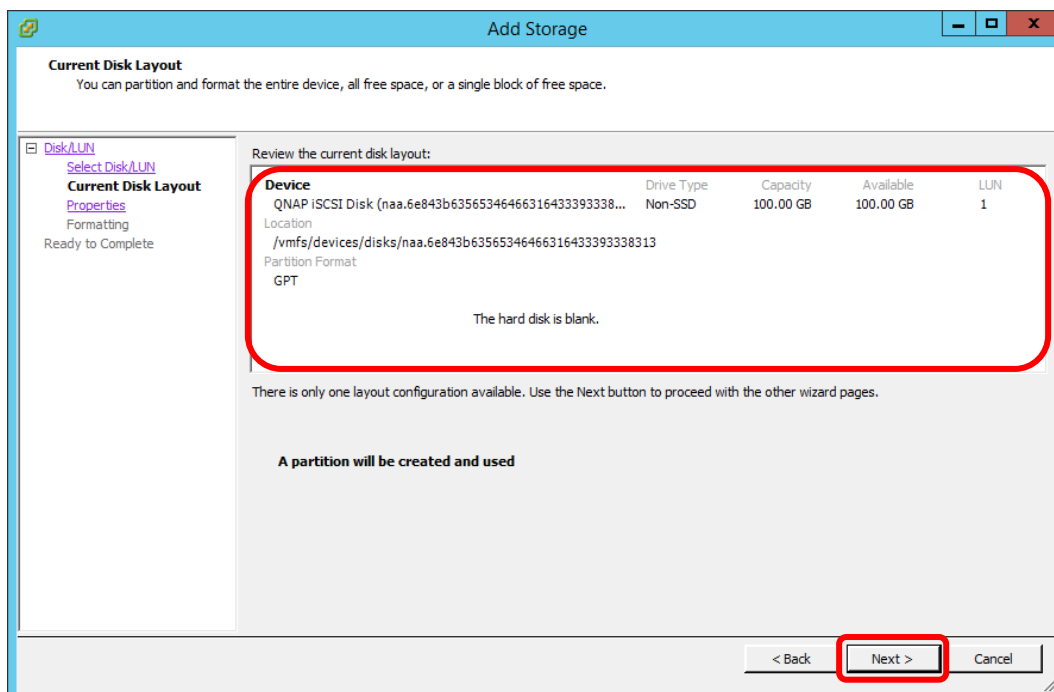
Step 2: Select “Disk/LUN” as the Storage Type and click “Next”.



Step 3: Select the iSCSI device to use for your datastore and click “Next”.



Step 4: The “Current Disk Layout” page presents the information about this iSCSI disk and its space usage. Confirm the settings and click “Next”.



Step 5: Enter a name for the datastore and click “Next”.

Properties
Specify the properties for the datastore

Enter a datastore name
QNAP iSCSI Datastore 100G

< Back Next > Cancel

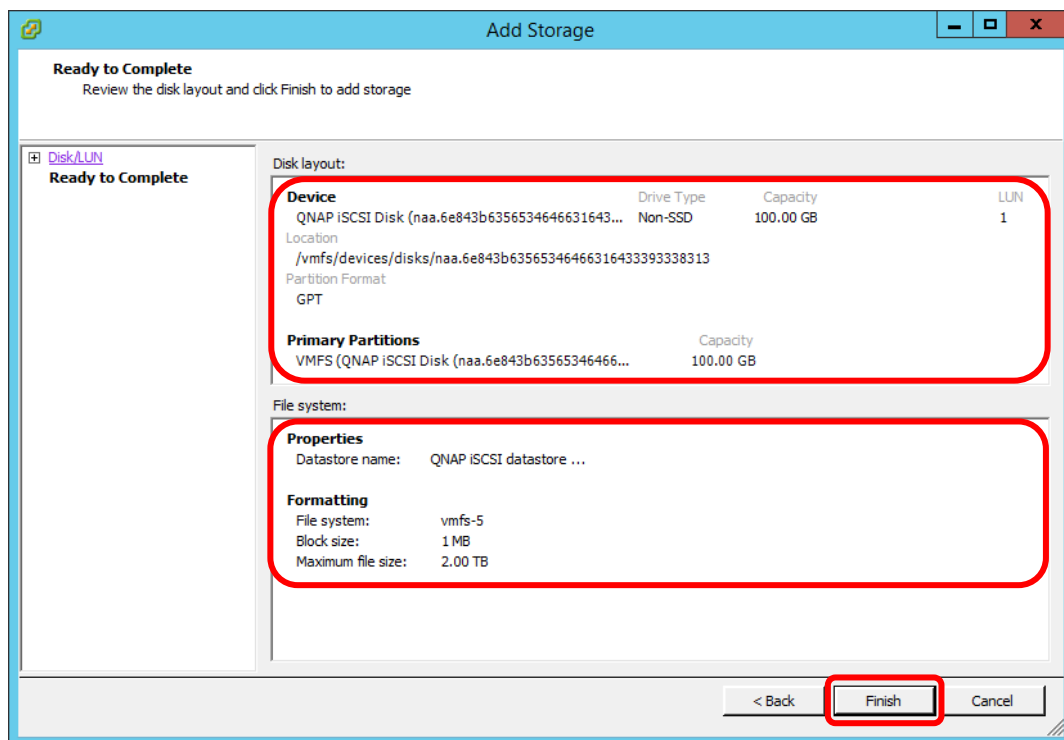
Step 6: Adjust the capacity values and click “Next”. By default, the entire space on the storage device is available.

Disk/LUN - Formatting
Specify the maximum file size and capacity of the datastore

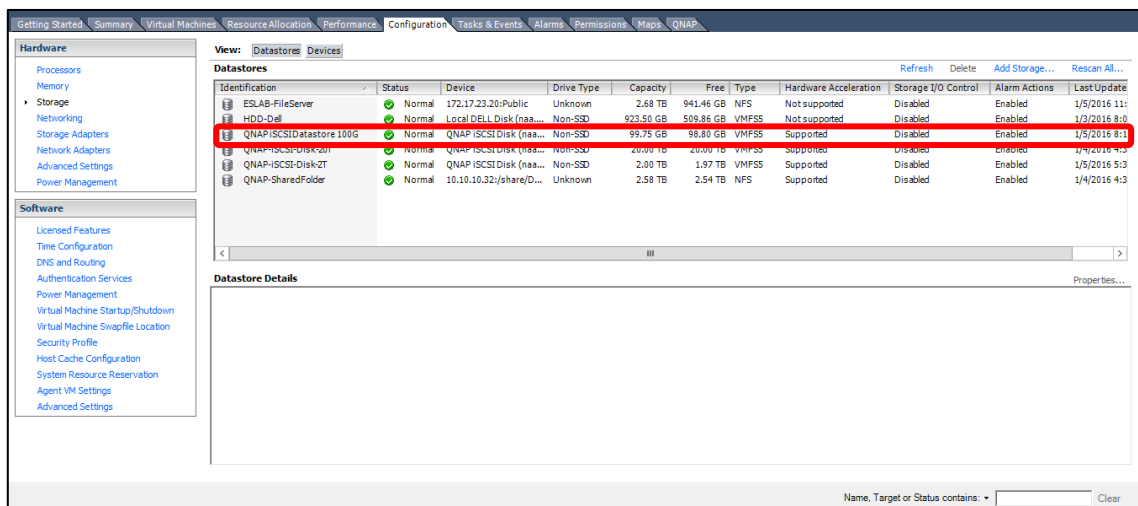
Capacity
☒ Maximum available space
☐ Custom space setting
100.00 GB of 100.00 GB available space

< Back Next > Cancel

Step 7: Review the datastore configuration information and click “Finish”.



Step 8: The newly-created datastore on the iSCSI-based storage device will be listed.

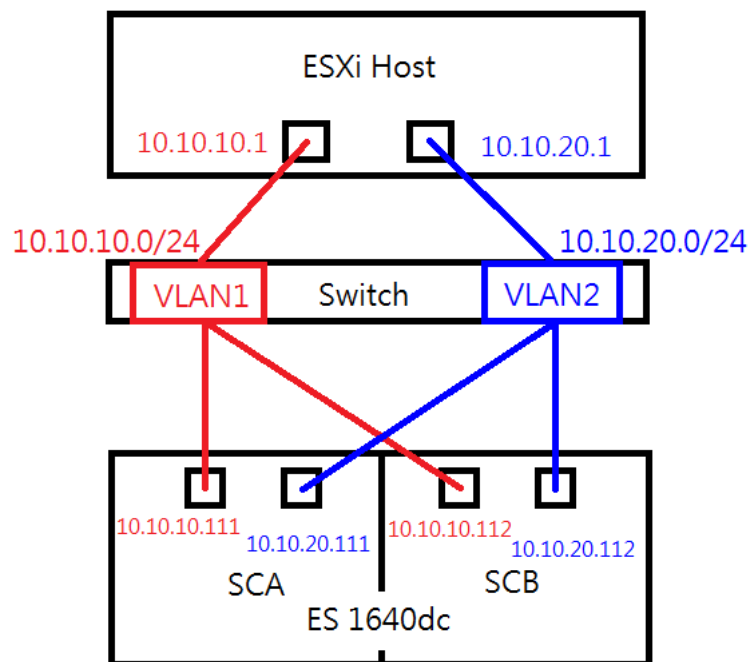




For VMWare vSphere Web Client 6.0

VMware and iSCSI Architecture

To use iSCSI Storage Area Networks (SAN), you create a LUN on the iSCSI target (for example: the ES NAS) and then mount it as a datastore on a host. The following diagram illustrates the deployment of iSCSI storage in a vSphere environment.

**Note:**

1 Gigabit Ethernet (1GbE) (or higher) is recommended for use in connecting to an iSCSI target.



Preparation for Installation

ESXi hosts are able to connect to the ES NAS via iSCSI. You can set up datastores (repositories for virtual machines) on the ES NAS that the ESXi hosts discover in your vSphere environment. We will demonstrate this implementation.

In our demonstration, the following configuration is used:

- Storage device: QNAP ES NAS series with QES (NAS operating system) version 1.1.4.
- vSphere ESXi hosts: VMware ESXi 6.0
- IP addressing: Static IP addresses are recommended for both ESXi hosts and the ES NAS.

Server and Storage Network Settings

Server Network Settings		
Role	IP	Description
ESXi host	172.17.23.116	VMware ESXi host
Data Network 1	10.10.10.1	10G Data port 1 in ESXi host
Data Network 2	10.10.20.1	10G Data port 2 in ESXi host

Storage Network Settings		
Setting	Value	Description
SCA Management IP	172.17.23.111	Management IP of controller A
SCA Ethernet1 IP	10.10.10.111	Data port 1 IP of controller A
SCA Ethernet2 IP	10.10.20.111	Data port 2 IP of controller A
SCB Management IP	172.17.23.112	Management IP of controller B
SCB Ethernet1 IP	10.10.10.112	Data port 1 IP of controller B
SCB Ethernet2 IP	10.10.20.112	Data port 2 IP of controller B
Pool allocate to SCB	Pool2	RAID6 pool at controller B

With the information listed in the table above, assuming a 100GB LUN is deployed on ES 1640 v2 controller B (SCB), it can be mounted using the following steps on the ESXi host.



Confirm these details before configuration

- All data ports, from the ESXi host and ES NAS, should be in the same subnet.
- Available pools must be built before configuring iSCSI LUN on the ES NAS. For more information on creating a storage pool, read [Network and Storage Settings of ES NAS High-Availability Network Storage Services](#).

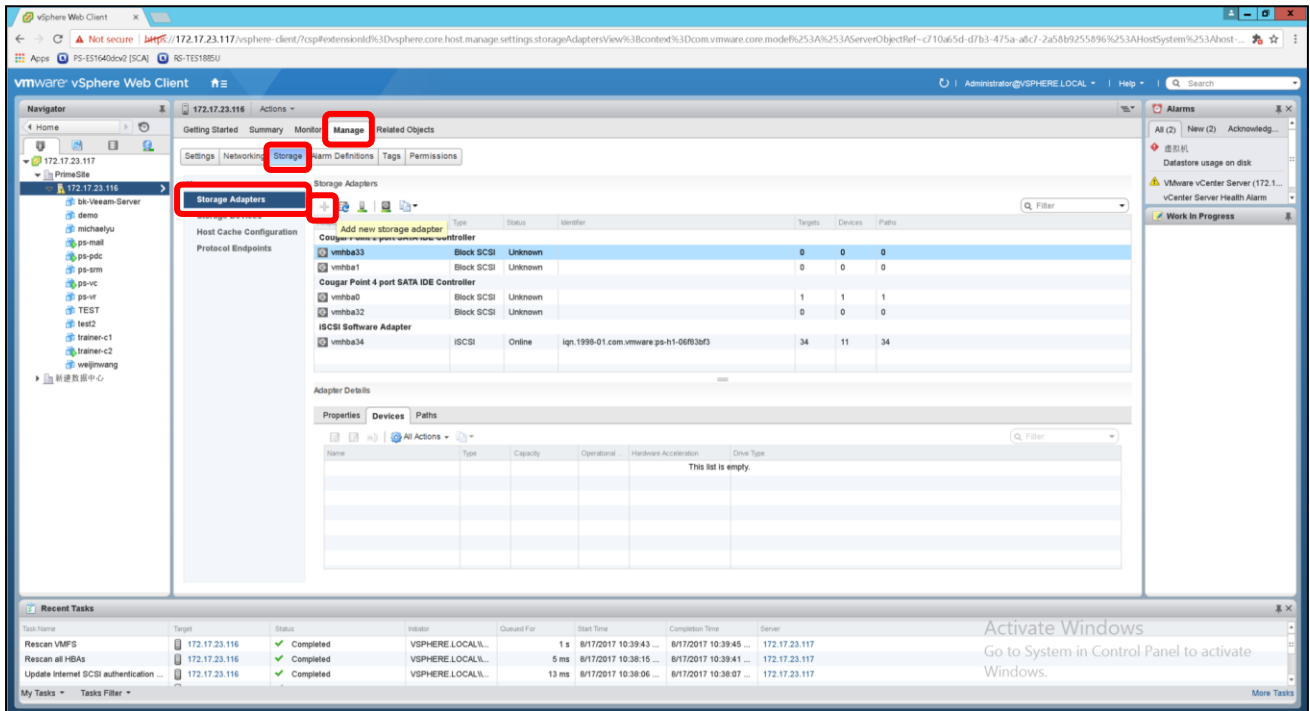
Definition

In this document, the VMware ESXi host is defined as the iSCSI Initiator, and QNAP ES NAS is the iSCSI Target.

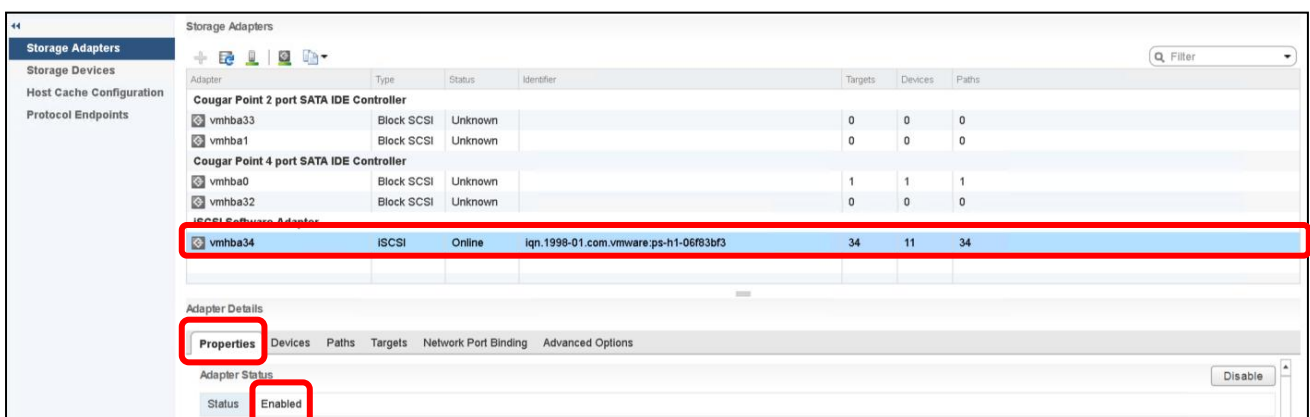


Add iSCSI Targets on VMware ESXi Hosts

Step 1: Log in to the vSphere Web Client, and select a host from the inventory panel. Go to the “Manage” tab and then the “Storage” tab. Click “Storage Adapters” then click “+” to add a storage adapter.



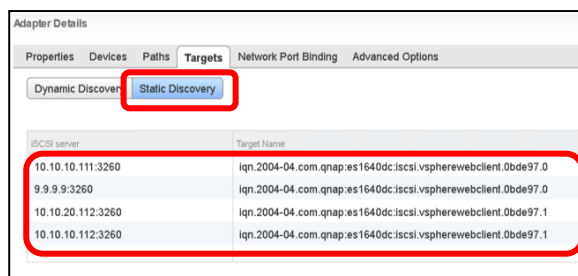
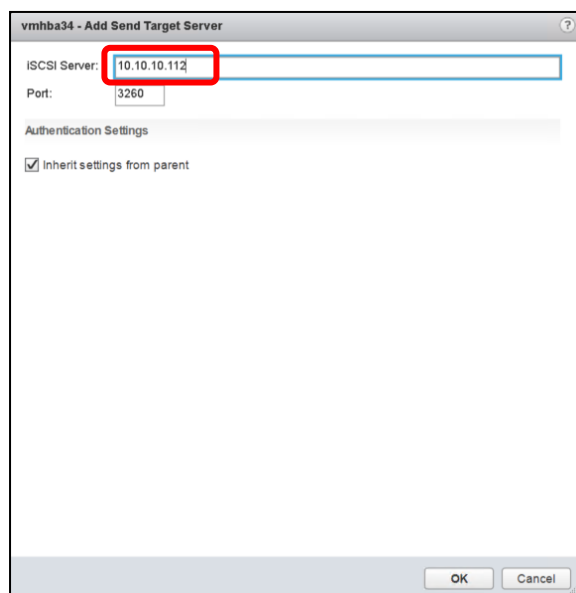
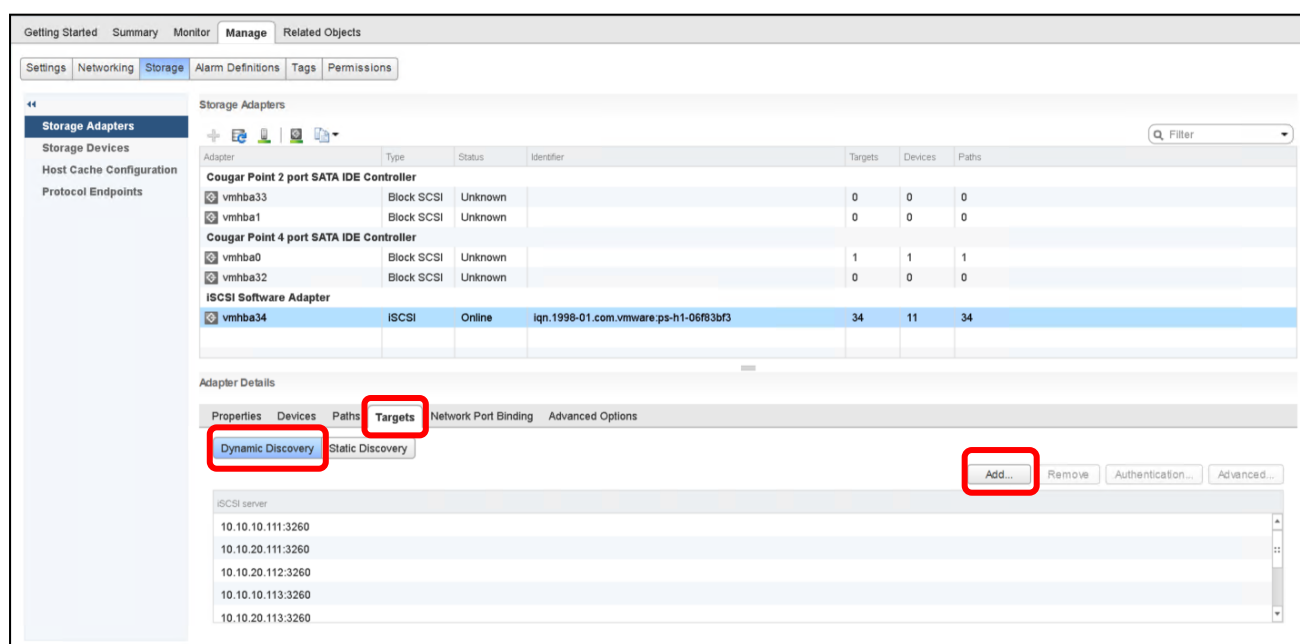
Step 2: A new software iSCSI adapter will be added to the Storage Adapter list. Select the software iSCSI adapter on the list and click “Properties”.



Step 3: Enable the adapter and set up target discovery addresses so that the iSCSI adapter can determine



which storage resource on the network is available. Go to the “Targets” tab, click “Dynamic Discovery” and “Add...” to add the data ports’ IP addresses of both controllers. Then go to the “Static Discovery” tab to view the names and IP addresses of these targets. If you remove a static target added by dynamic discovery, the target might be returned to the list the next time a rescan happens, the HBA is reset, or the host is rebooted.



Step 4: Click “Rescan” to scan the newly-added devices.

Storage Adapters

Adapter	Type	Status	Identifier	Targets	Devices	Paths
Cougar Point 2 port SATA IDE Controller						
vmhba33	Block SCSI	Unknown		0	0	0
vmhba1	Block SCSI	Unknown		0	0	0
Cougar Point 4 port SATA IDE Controller						
vmhba0	Block SCSI	Unknown		1	1	1
vmhba32	Block SCSI	Unknown		0	0	0
iSCSI Software Adapter						
vmhba34	iSCSI	Online	iqn.1998-01.com:vmware:ps-h1-06f83bf3	34	11	34

Due to recent configuration changes, a rescan of this storage adapter is recommended.

Adapter Details

Properties | Devices | Paths | Targets | Network Port Binding | Advanced Options

Dynamic Discovery | Static Discovery

Add... Remove Authentication... Advanced...

Note :

If CHAP is enabled in the ES NAS iSCSI Target, you should have the same configuration in “CHAP...” in the “Add Send Target Server” window.

Step 5: You can now find the corresponding iSCSI device for the added iSCSI adapter.

Storage Adapters

Adapter	Type	Status	Identifier	Targets	Devices	Paths
Cougar Point 2 port SATA IDE Controller						
vmhba33	Block SCSI	Unknown		0	0	0
vmhba1	Block SCSI	Unknown		0	0	0
Cougar Point 4 port SATA IDE Controller						
vmhba0	Block SCSI	Unknown		1	1	1
vmhba32	Block SCSI	Unknown		0	0	0
iSCSI Software Adapter						
vmhba34	iSCSI	Online	iqn.1998-01.com:vmware:ps-h1-06f83bf3	34	11	34

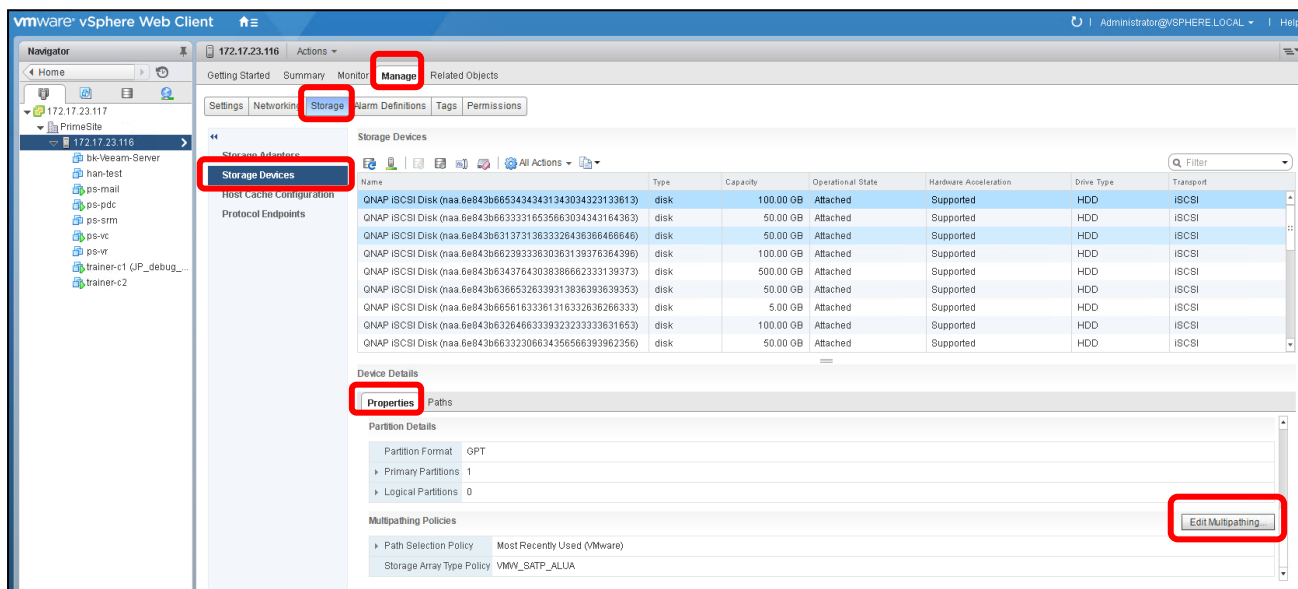
Adapter Details

Properties | Devices | Paths | Targets | Network Port Binding | Advanced Options

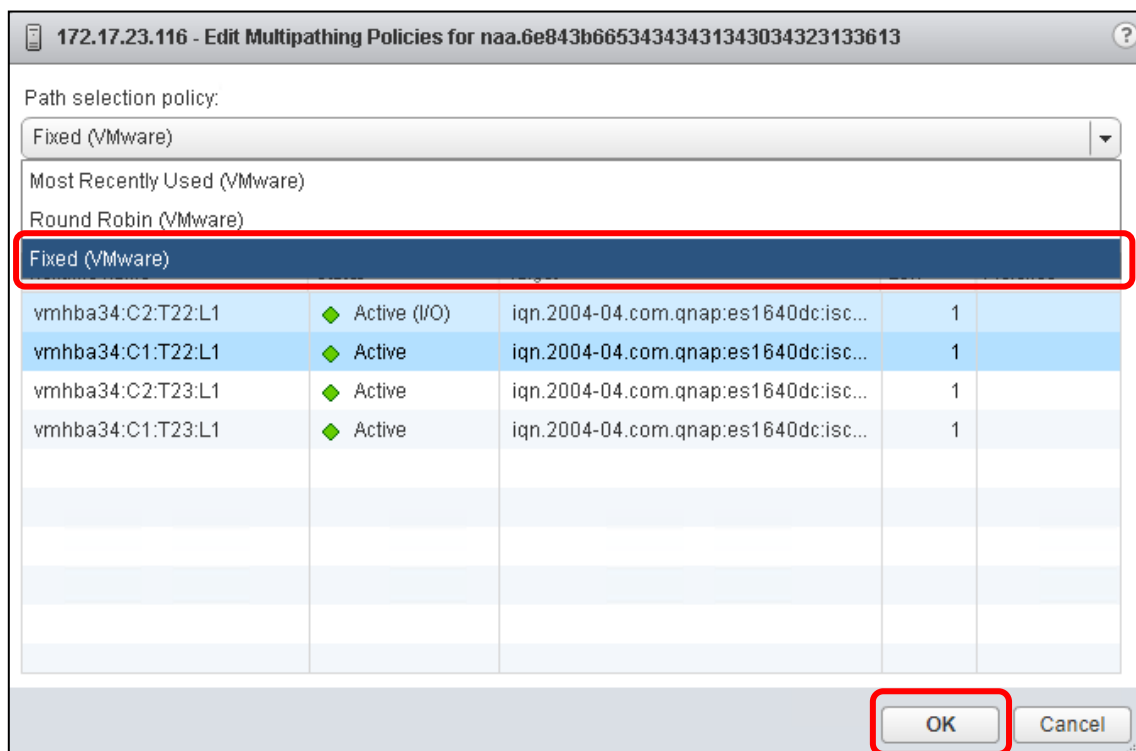
Name	Type	Capacity	Operational	Hardware Acceleration	Drive Type
QNAP iSCSI Disk (naa.6e843b63437643038386662333139373)	disk	500.00 GB	Attached	Supported	HDD
QNAP iSCSI Disk (naa.6e843b66466613436303765356331646)	disk	100.00 GB	Attached	Supported	HDD
QNAP iSCSI Disk (naa.6e843b66133316335636465633036353)	disk	50.00 GB	Attached	Supported	HDD
QNAP iSCSI Disk (naa.6e843b6653238393033623523436396)	disk	100.00 GB	Attached	Supported	HDD
QNAP iSCSI Disk (naa.6e843b66261643530653235386538633)	disk	100.00 GB	Attached	Supported	HDD
QNAP iSCSI Disk (naa.6e843b66233343631613432313435623)	disk	1.00 TB	Attached	Supported	HDD
QNAP iSCSI Disk (naa.6e843b66239333630363139376364396)	disk	100.00 GB	Attached	Supported	HDD

Configure the Path for iSCSI Connection

Step 1: Click “Manage” > “Storage” > “Storage Devices”, select the iSCSI Disk, then click “Properties” > “Edit Multipathing...”



Step 2: Select “Fixed (VMware)” in Path selection policy, then select one path as the preferred path and click “OK”.





Note :

For better iSCSI performance, select the path or Ethernet port which belongs to the Storage Controller that owns the iSCSI LUN. In our example, we chose ports (10.10.10.111/10.10.20.111) which belong to SCB on which Pool 2 was created.

The data port will be listed in the Target name.

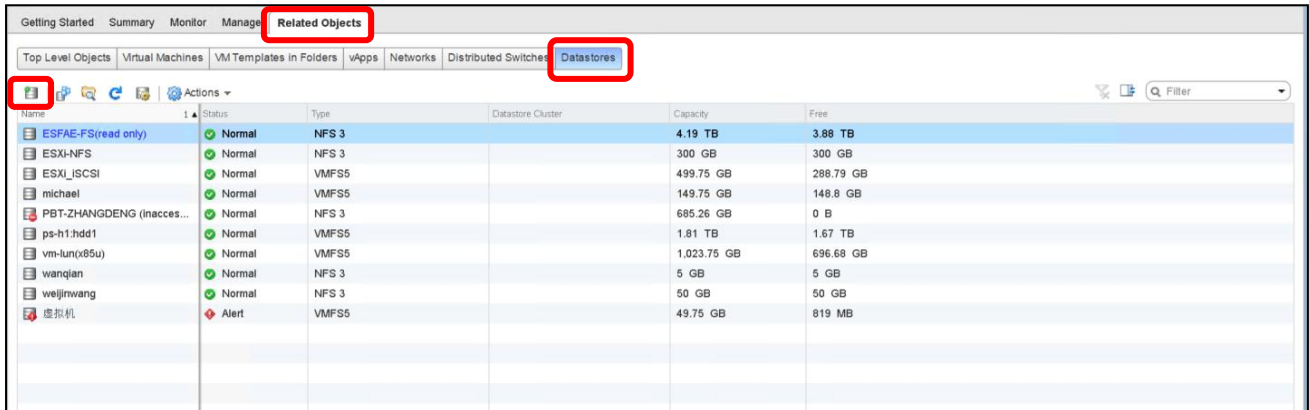
For example:

iqn.2004-04.com.qnap:es1640dc:iscsi.qnaptarget.ee0516.0:10.10.10.111:3260

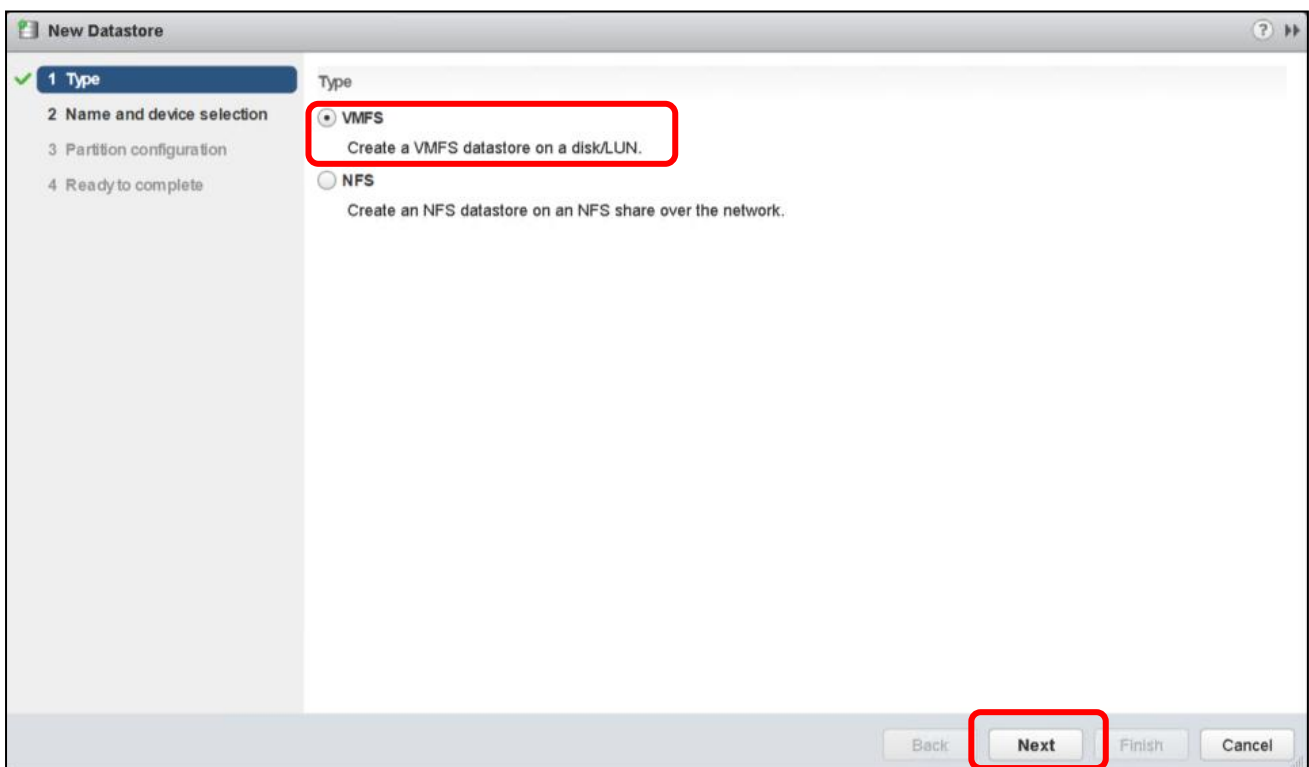


Create a VMFS Datastore in the vSphere Client

Step 1: Go to the “Related Objects” tab and then go to the “Datastores” tab. Click the “Create a new datastore” icon.



Step 2: Select “VMFS” as the Type and click “Next”.



Step 3: Enter a name for the datastore and select the iSCSI device to use for your datastore. Click “Next”.

New Datastore

1 Type
2 Name and device selection
3 VMFS version
4 Partition configuration
5 Ready to complete

Datastore name:

Filter

Name	LUN	Capacity	Hardware Accel...	Drive Type	Snapshot V...
QNAP ISCSI Disk (naa.6e843b66239333630363139376364396)	1	100.00 GB	Supported	HDD	
QNAP ISCSI Disk (naa.6e843b63137343636373632363135356)	1	234.00 GB	Supported	HDD	
QNAP ISCSI Disk (naa.6e843b66465636164346163643138343)	1	16.00 TB	Supported	HDD	
QNAP ISCSI Disk (naa.6e843b66261643530653235386538633)	1	100.00 GB	Supported	HDD	
QNAP ISCSI Disk (naa.6e843b66532383930336235323436396)	1	100.00 GB	Supported	HDD	
QNAP ISCSI Disk (naa.6e843b66466613436303765356331646)	2	100.00 GB	Supported	HDD	
QNAP ISCSI Disk (naa.6e843b6326466333932323333631653)	1	100.00 GB	Supported	HDD	

7 items

Back Next Finish Cancel

Step 4: Choose the proper VMFS version and click “Next”.

New Datastore

1 Type
2 Name and device selection
3 VMFS version
4 Partition configuration
5 Ready to complete

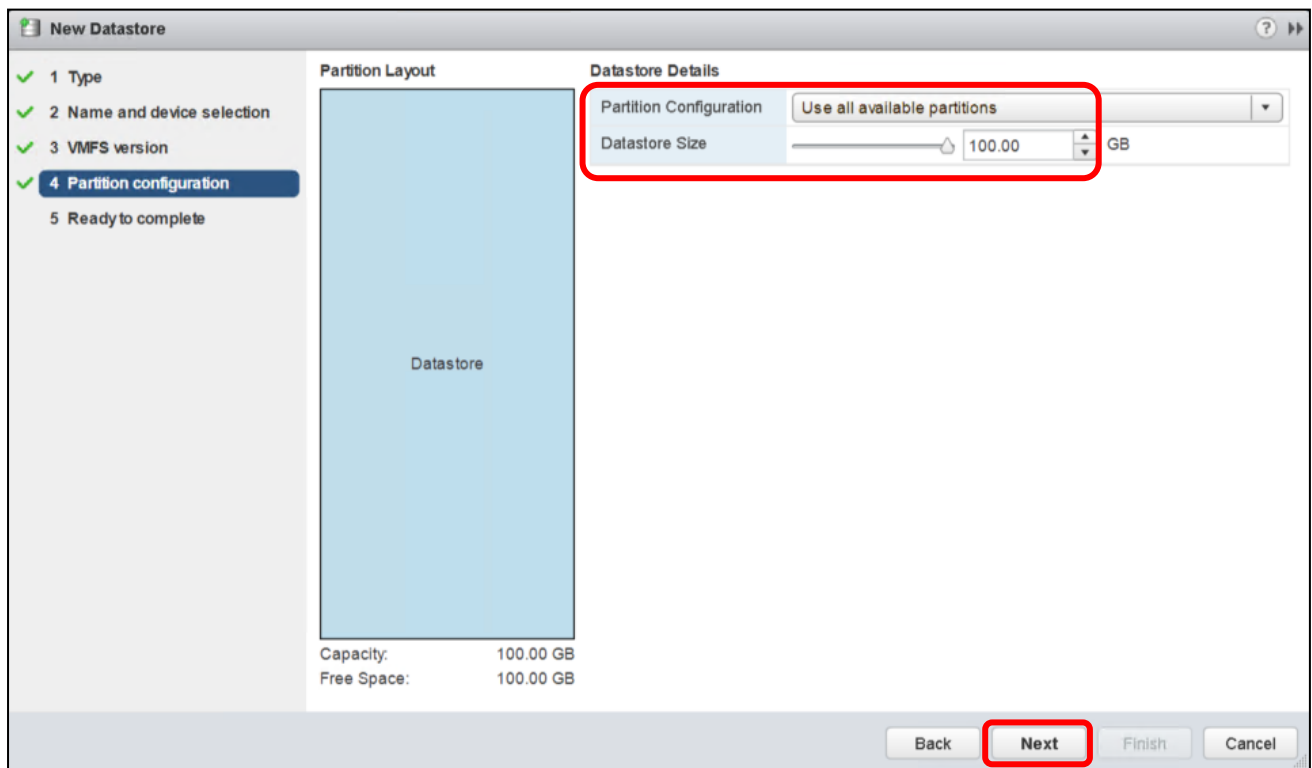
☒ VMFS 5
 VMFS 5 enables 2+TB LUN support.

☐ VMFS 3
 VMFS 3 allows the datastore to be accessed by ESX/ESXI hosts of version earlier than 5.0.

Back Next Finish Cancel



Step 5: Adjust the capacity values and click “Next”. By default, the entire space on the storage device is available.



Step 6: Review the datastore configuration information and click “Finish”.

New Datastore

- 1 Type
- 2 Name and device selection
- 3 VMFS version
- 4 Partition configuration
- 5 Ready to complete

General:

Name	Datastore
Type	VMFS
Datastore size	100.00 GB

Device and Formatting:

Disk/LUN	QNAP iSCSI Disk (naa.6e843b66532383930336235323436396)
Partition Format	GPT
VMFS Version	VMFS 5

Back Next **Finish** Cancel

Step 7: Click the “Recalculate” icon, and the datastore on the iSCSI-based storage device will be listed.

Getting Started Summary Monitor Manage **Related Objects**

Top Level Objects Virtual Machines VM Templates in Folders vApps Networks Distributed Switches **Datastores**

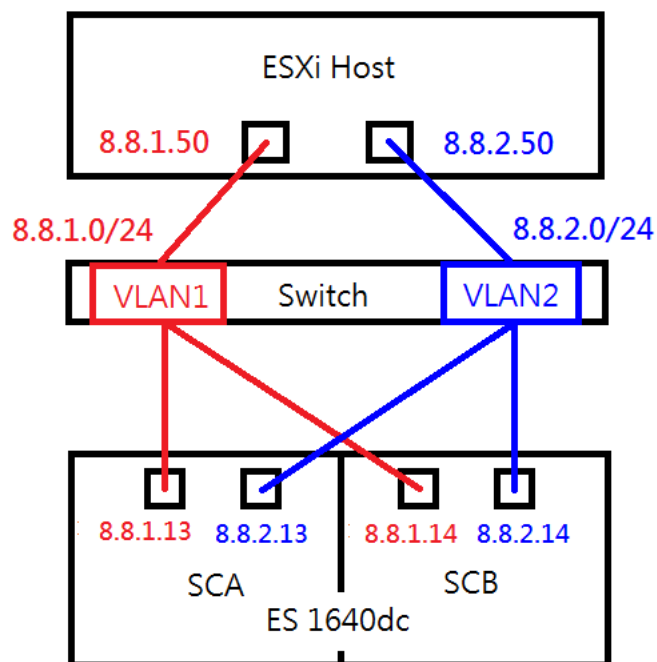
1 Actions

Name	Status	Type	Datastore Cluster	Capacity	Free
ESFAE-FS(read only)	Normal	NFS 3		4.19 TB	3.88 TB
ESXI-NFS	Normal	NFS 3		300 GB	300 GB
ESXI_ISCSI	Normal	VMFSS		499.75 GB	288.79 GB
michael	Normal	VMFSS		149.75 GB	148.8 GB
PBT-ZHANGDENG	Normal	NFS 3		685.26 GB	594.31 GB
ps-h1.hdd1	Normal	VMFSS		1.81 TB	1.67 TB
vm-lun(x85u)	Normal	VMFSS		1,023.75 GB	696.68 GB
vspherewebclient	Normal	VMFSS		99.75 GB	98.8 GB
wangqian	Normal	NFS 3		5 GB	5 GB
weijunwang	Normal	NFS 3		50 GB	50 GB
虚拟机	Alert	VMFSS		49.75 GB	819 MB

For VMWare vSphere Web Client 6.5

VMware and iSCSI Architecture

To use iSCSI Storage Area Networks (SAN), you create a LUN on the iSCSI target (for example: the ES NAS) and then mount it as a datastore on a host. The following diagram illustrates the deployment of iSCSI storage in a vSphere environment.



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- vSphere ESXi hosts: VMware ESXi 6.0
- IP addressing: Static IP addresses are recommended for both ESXi hosts and the ES NAS.

Server and Storage Network Settings

Server Network Settings		
Role	IP	Description
ESXi host	192.168.1.50	VMware ESXi host
Data Network 1	8.8.1.50	10G Data port 1 in ESXi host
Data Network 2	8.8.2.50	10G Data port 2 in ESXi host

Storage Network Settings		
Setting	Value	Description
SCA Management IP	192.168.1.12	Management IP of controller A
SCA Ethernet1 IP	8.8.1.13	Data port 1 IP of controller A
SCA Ethernet2 IP	8.8.2.13	Data port 2 IP of controller A
SCB Management IP	192.168.1.13	Management IP of controller B
SCB Ethernet1 IP	8.8.1.14	Data port 1 IP of controller B
SCB Ethernet2 IP	8.8.2.14	Data port 2 IP of controller B
Pool allocate to SCB	Pool2	RAID6 pool at controller B

With the information listed in the above table, assuming a 100GB LUN is deployed on ES1640dc v2 controller B (SCB), it can be mounted using the following steps on the ESXi host.



Confirm these details before configuration

- All data ports, from the ESXi host and ES NAS, should be in the same subnet.
- Available pools must be built before configuring iSCSI LUN on the ES NAS. For more information on creating a storage pool, read [Network and Storage Settings of ES NAS High-Availability Network Storage Services](#).

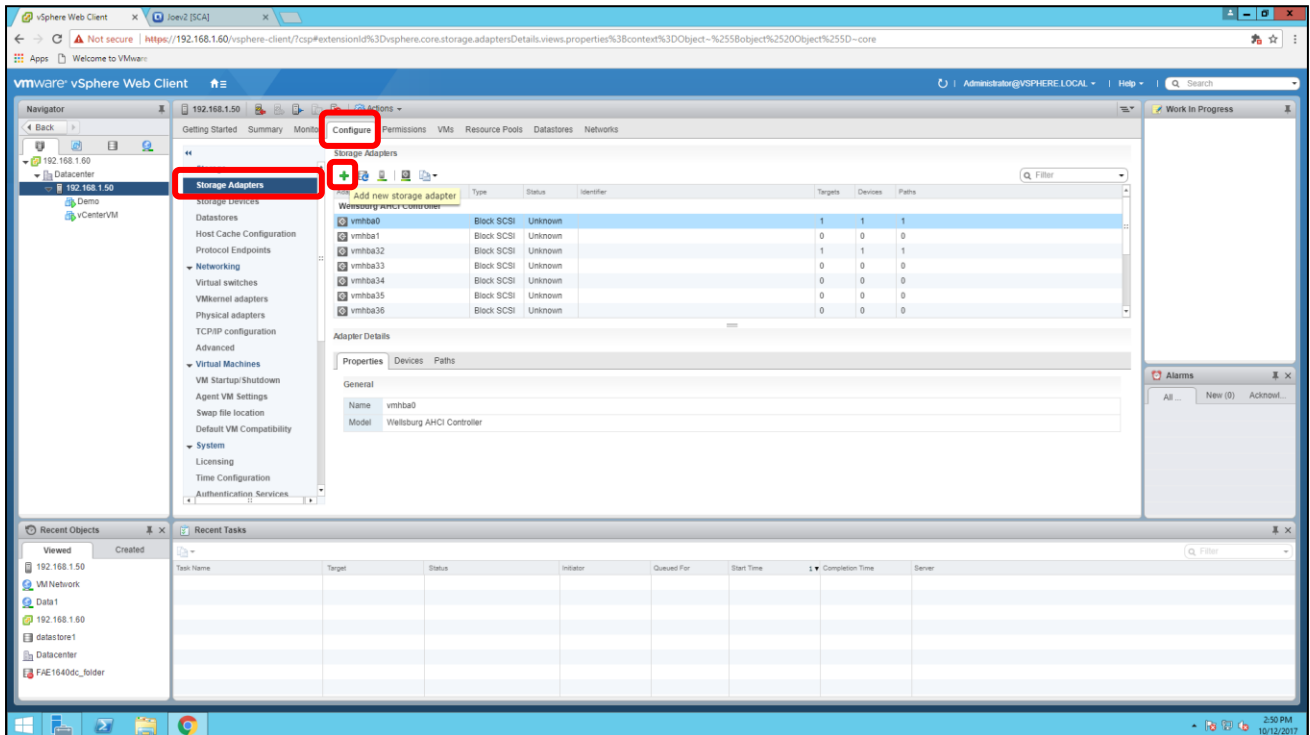
Definition

In this document, the VMware ESXi host is defined as the iSCSI Initiator, and the QNAP ES NAS is the iSCSI Target.

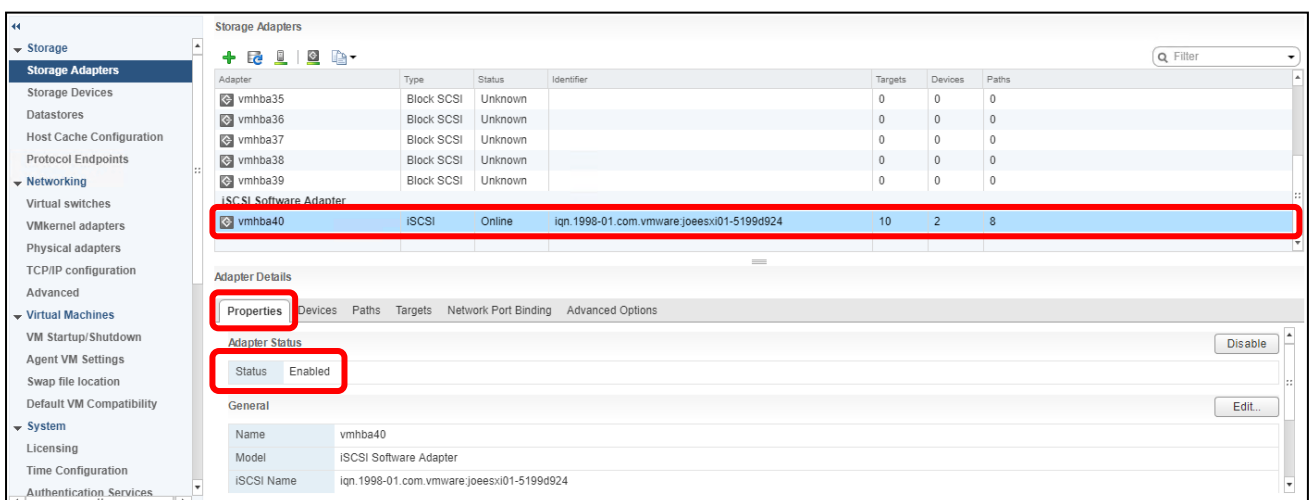


Add iSCSI Targets on VMware ESXi Hosts

Step 1: Log in to the vSphere Web Client, and select a host from the inventory panel. Go to the “Configure” tab and then the “Storage Adapters” tab. Click “+” to add a new storage adapter.



Step 2: A new software iSCSI adapter will be added to the Storage Adapter list. Select the new software iSCSI adapter in the list and click “Properties” to ensure the adapter is enabled.



Step 3: After enabling the adapter, you must set up target discovery addresses so that the iSCSI adapter can determine which storage resource on the network is available for access. Go to the “Targets” tab, click “Dynamic Discovery” and then click “Add...” to add the data ports’ IP addresses of both controllers. Then go to the “Static Discovery” tab to view the names and IP addresses of these targets. If you remove a static target added by dynamic discovery, the target might be returned to the list the next time a rescan happens, the HBA is reset, or the host is rebooted.

Storage Adapters

Adapter	Type	Status	Identifier	Targets	Devices	Paths
Wellsburg AHCI Controller						
vmhba0	Block SCSI	Unknown		1	1	1
vmhba1	Block SCSI	Unknown		0	0	0
vmhba32	Block SCSI	Unknown		1	1	1
vmhba33	Block SCSI	Unknown		0	0	0
vmhba34	Block SCSI	Unknown		0	0	0
vmhba35	Block SCSI	Unknown		0	0	0
vmhba36	Block SCSI	Unknown		0	0	0

Adapter Details

Properties Devices Paths **Targets** Network Port Binding Advanced Options

Dynamic Discovery Static Discovery

Add... Remove Authentication... Advanced...

iSCSI server

This list is empty.

vmhba40 - Add Send Target Server

iSCSI Server: 8.8.1.14

Port: 3260

Authentication Settings

☒ Inherit settings from parent

OK Cancel

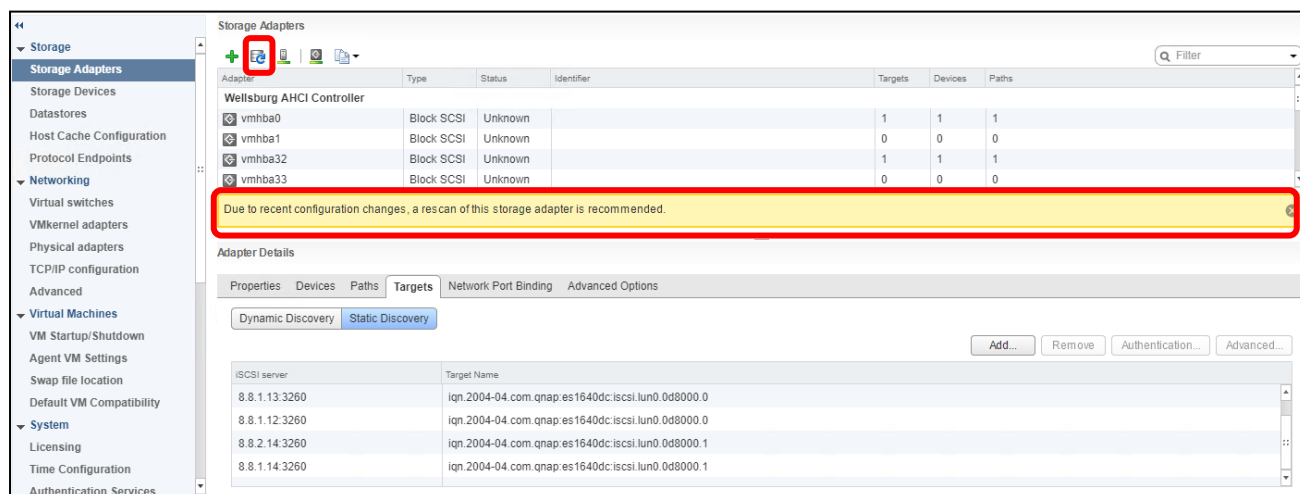
Adapter Details

Properties Devices Paths **Targets** Network Port Binding Advanced Options

Dynamic Discovery **Static Discovery**

iSCSI server	Target Name
8.8.1.13:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.0
8.8.1.12:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.0
8.8.2.14:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.1
8.8.1.14:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.1

Step 4: Click “Rescan” to scan the newly-added devices.



Adapter	Type	Status	Identifier	Targets	Devices	Paths
vmhba0	Block SCSI	Unknown		1	1	1
vmhba1	Block SCSI	Unknown		0	0	0
vmhba32	Block SCSI	Unknown		1	1	1
vmhba33	Block SCSI	Unknown		0	0	0

Due to recent configuration changes, a rescan of this storage adapter is recommended.

Adapter Details

Properties | Devices | Paths | **Targets** | Network Port Binding | Advanced Options

Dynamic Discovery | **Static Discovery**

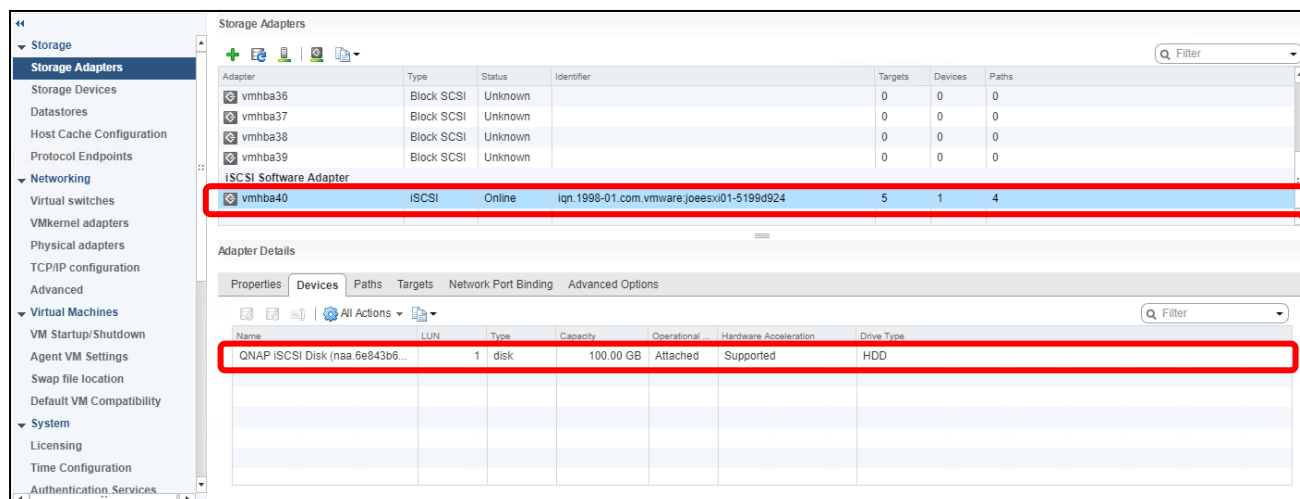
ISCSI server | Target Name

8.8.1.13:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.0
8.8.1.12:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.0
8.8.2.14:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.1
8.8.1.14:3260	iqn.2004-04.com.qnap.es1640dc:iscsi.lun0.0d8000.1

Note :

If CHAP is enabled in the ES NAS iSCSI Target, you should have the same configuration in “CHAP...” in the “Add Send Target Server” window.

Step 5: You can now find the corresponding iSCSI device for the added iSCSI adapter.



Adapter	Type	Status	Identifier	Targets	Devices	Paths
vmhba36	Block SCSI	Unknown		0	0	0
vmhba37	Block SCSI	Unknown		0	0	0
vmhba38	Block SCSI	Unknown		0	0	0
vmhba39	Block SCSI	Unknown		0	0	0
vmhba40	iSCSI	Online	iqn.1998-01.com.vmware.joesxi01-5199d924	5	1	4

Adapter Details

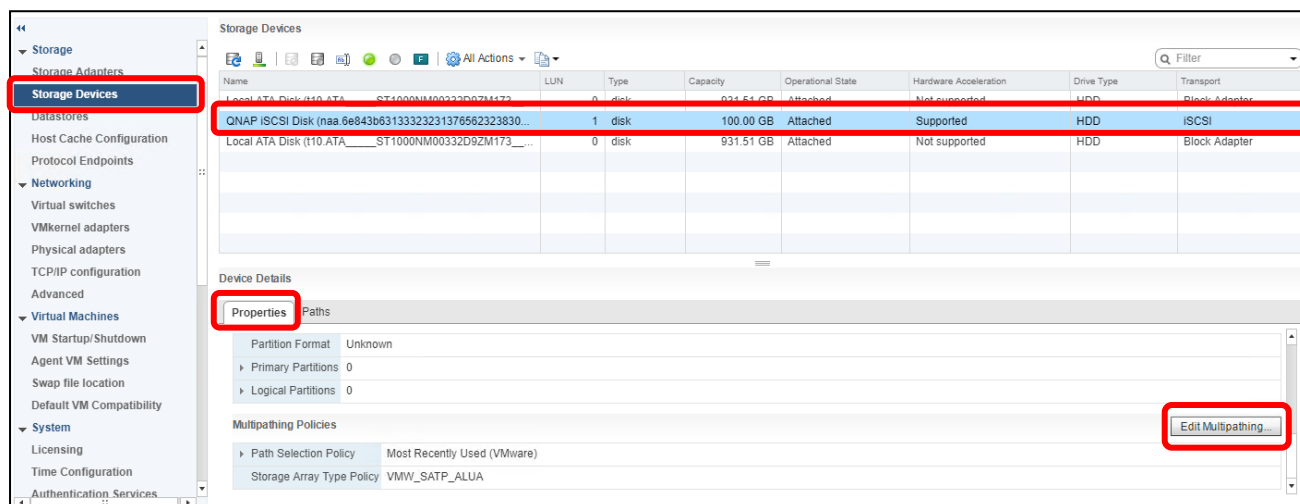
Properties | **Devices** | Paths | Network Port Binding | Advanced Options

QNAP iSCSI Disk (naa.5e843b6...) | LUN | Type | Capacity | Operational | Hardware Acceleration | Drive Type

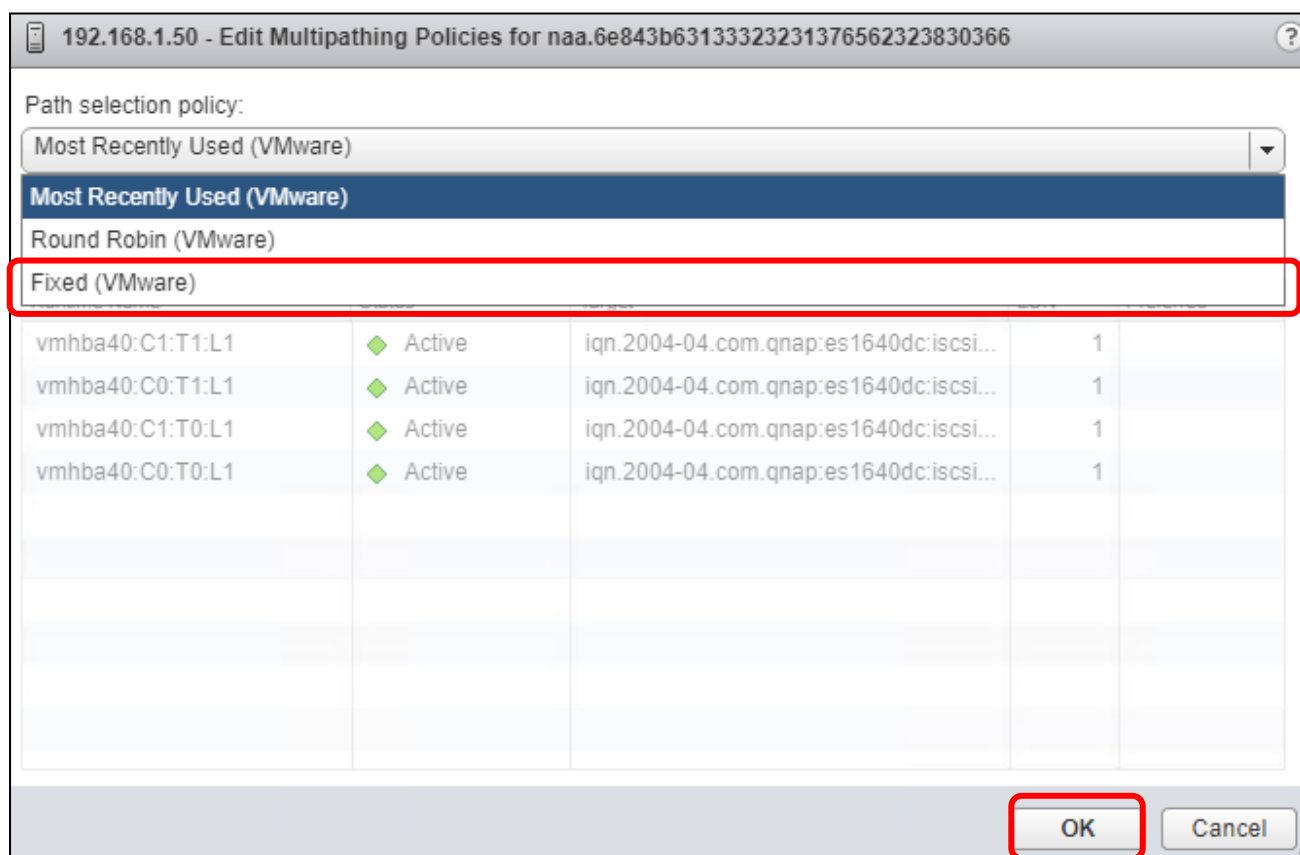
QNAP iSCSI Disk (naa.5e843b6...)	1	disk	100.00 GB	Attached	Supported	HDD
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Configure the Path for iSCSI Connection

Step 1: Click “Storage Devices”, select the iSCSI Disk, and then click “Properties” > “Edit Multipathing...”



Step 2: Select “Fixed (VMware)” in Path selection policy, then select one path as the preferred path. Click “OK”.





Note :

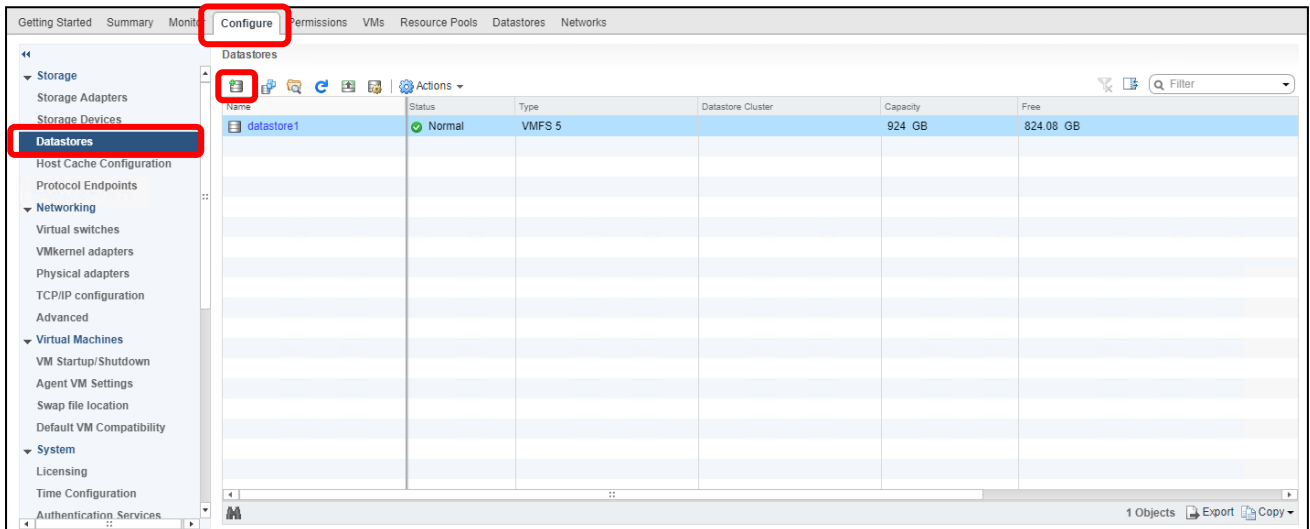
For better iSCSI performance, select the path or Ethernet port which belongs to the Storage Controller that owns the iSCSI LUN. In our example, we chose ports (8.8.1.14/8.8.2.14) which belong to SCB on which Pool 2 was created.

The data port shows after the Target name.

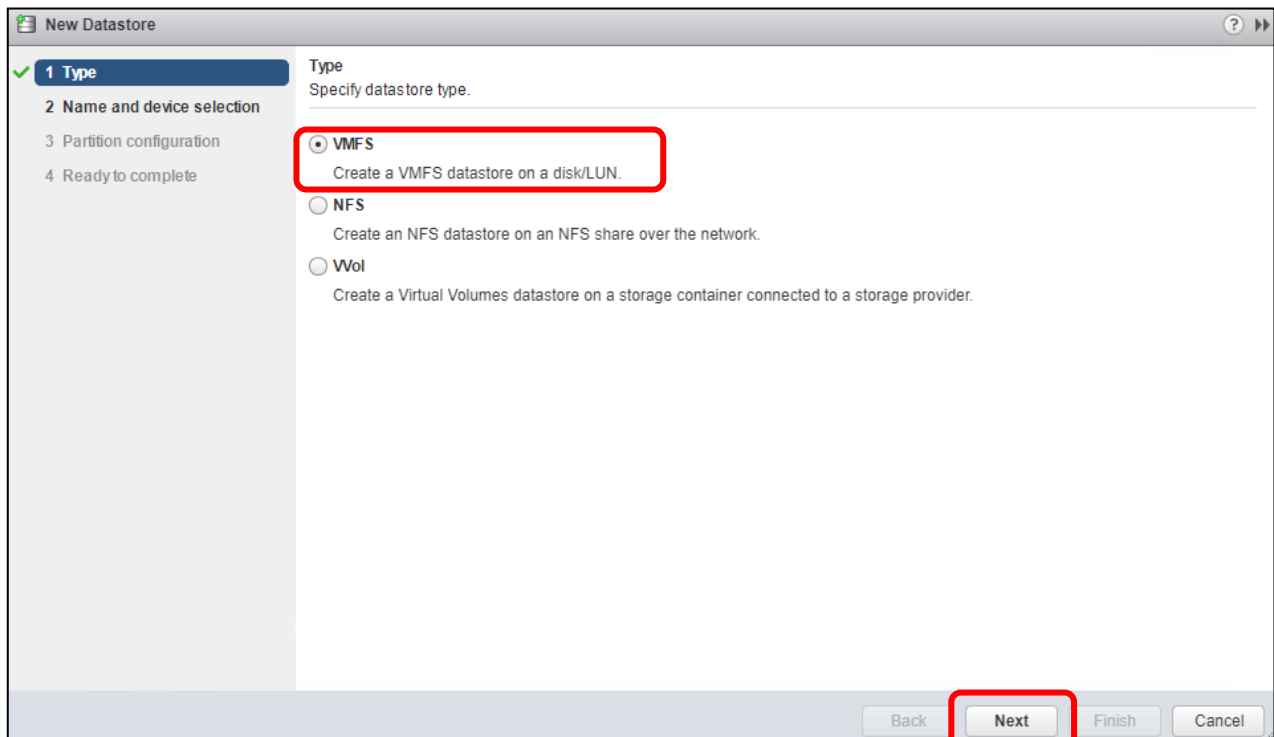
For example: `iqn.2004-04.com.qnap:es1640dc:iscsi.lun0.0d8000:8.8.1.14:3260`

Create a VMFS Datastore in the vSphere Client

Step 1: Go to the “Configure” tab and then the “Datastores” tab. Click the “Create a new datastore” icon.



Step 2: Select “VMFS” as the Type and click “Next”



Step 3: Enter a name for the datastore and select the iSCSI device to use for your datastore. Click “Next”.

New Datastore

1 Type
2 Name and device selection
 3 Partition configuration
 4 Ready to complete

Name and device selection
 Select a name and a disk/LUN for provisioning the datastore.

Datastore name:

Name	LUN	Capacity	Hardware Accel.	Drive Type	Sector format	Snap.
QNAP iSCSI Disk (naa.6e843b63133323231376562...)	1	100.00 GB	Supported	HDD	--	
Local ATA Disk (t10.ATA_____ST1000NM00332D9Z...)	0	931.51 GB	Not supported	HDD	--	

2 items [Copy](#)

[Back](#) **[Next](#)** [Finish](#) [Cancel](#)

Step 4: Adjust the capacity values and click “Next”. By default, the entire space on the storage device is available.

New Datastore

1 Type
 2 Name and device selection
3 Partition configuration
 4 Ready to complete

Partition configuration
 Review the disk layout and specify partition configuration details.

Partition Layout

Datastore Details

Partition Configuration:

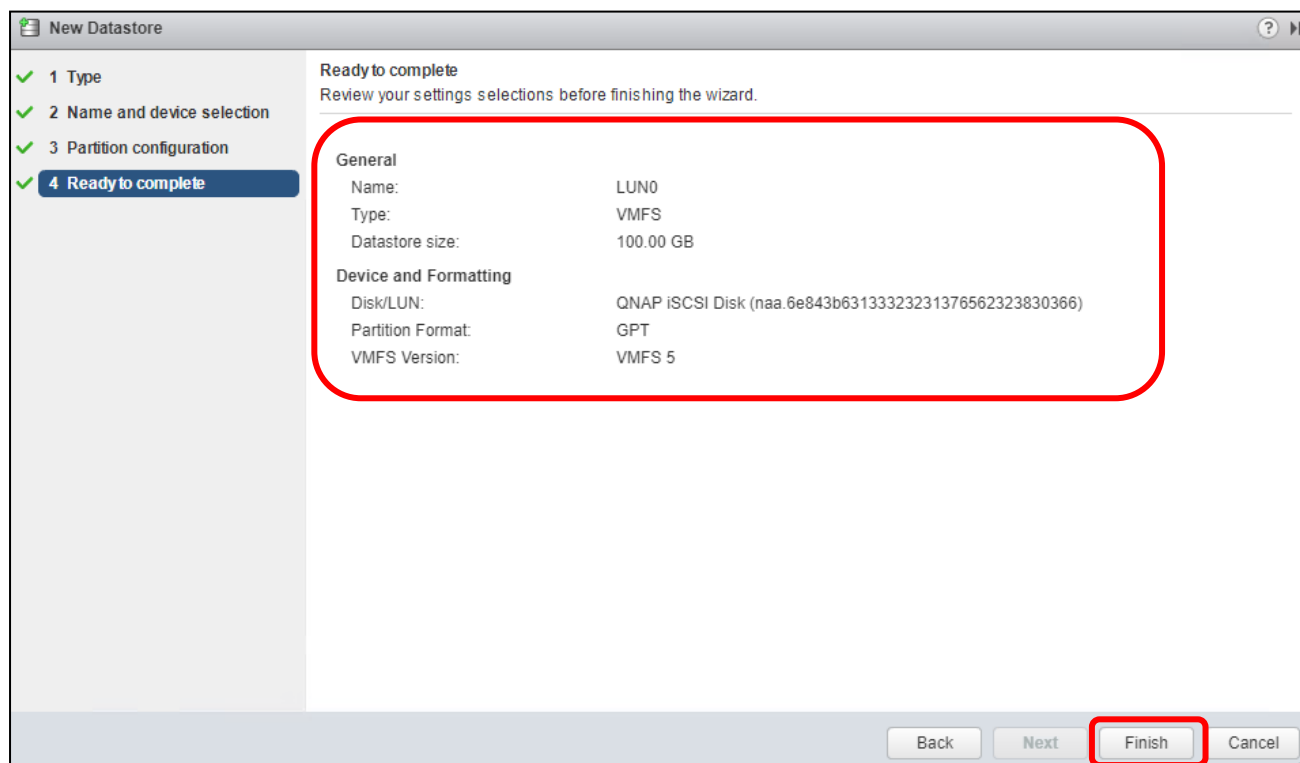
Datastore Size: GB

LUN0

Capacity: 100.00 GB
 Free Space: 100.00 GB

[Back](#) **[Next](#)** [Finish](#) [Cancel](#)

Step 5: Review the datastore configuration information and click “Finish”.



Step 6: Click the “Recalculate” icon and the datastore on the iSCSI-based storage device will be listed.

