



## Step-by-Step Guide

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### How to Connect to a DSS V7 iSCSI Target Volume from a Microsoft Windows

The aim of this document is to demonstrate how to Connect to an iSCSI Target Volume from DSS V7. It shows in step-by-step, how to set up DSS V7 and connect to iSCSI Target Volume with iSCSI initiator.

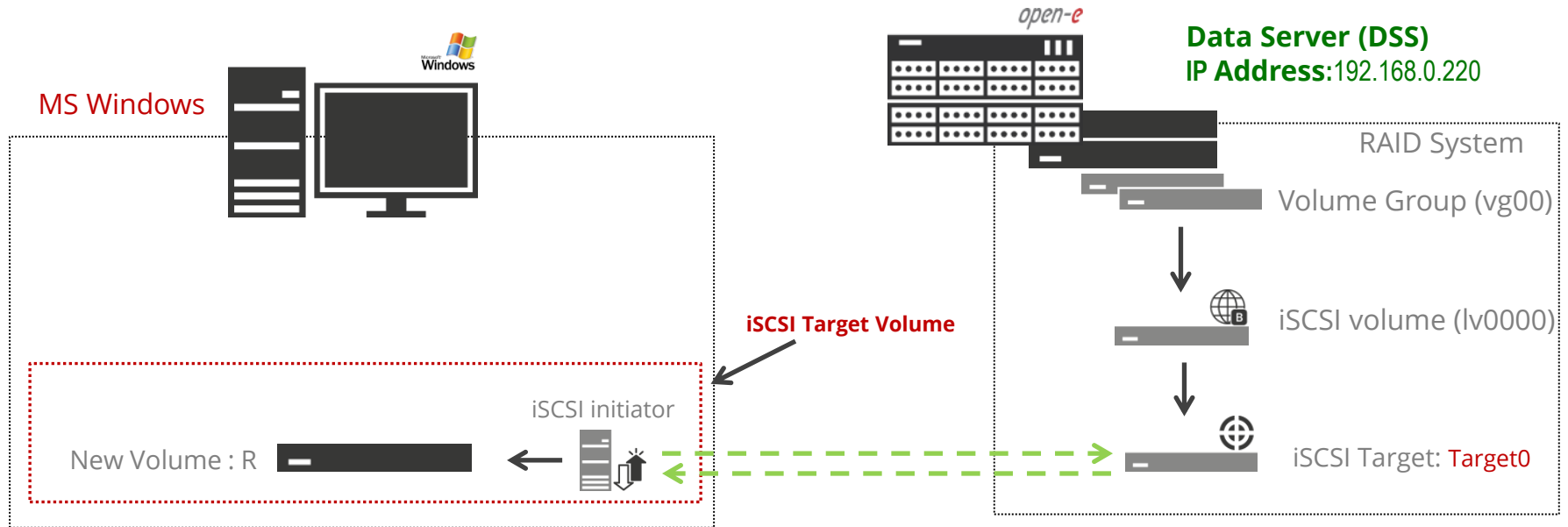
To connect to an iSCSI Target Volume over a LAN from a Microsoft Windows system, perform the following steps:

1. Hardware configuration
2. Configure DSS V7:
  - Create a Volume Group, iSCSI volume and target on the DSS V7,
3. Configure iSCSI Target Properties
4. Initialize the disk from iSCSI target
  - Create a partition assign a letter,
  - Format disk,
5. Accessing to the disk

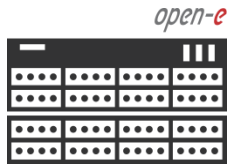
## 1. Hardware configuration

### Hardware Requirements:

To configure an iSCSI Target Volume in MS Windows, a iSCSI Initiator in the MS system is required and one DSS V7 server with an iSCSI target. In this example the DSS V7 system and Windows 10 with iSCSI Initiator will be used.



## 2. Configure DSS V7



Data Server (DSS)  
IP Address: 192.168.0.220

Under the "**CONFIGURATION**" tab, select "**Volume manager**" and next "**Volume groups**".

In the **Unit manager** add the selected physical units (**Unit S001**) to create a new volume group (in this case, **vg00**) and click **apply** button.

The screenshot shows the open-e web interface for configuring storage. The breadcrumb path is "Configuration > Volume manager > Volume groups".

**Unit manager**

Unit	Size (GB)	Serial number	Status
<input checked="" type="checkbox"/> Unit S001	1862.95	N/A	available

Action: new volume group  
Name: vg00  
[apply]

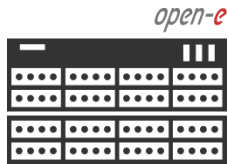
Please apply changes or press "reload" button to discard

**Drive identifier**

Unit	Serial number	Status
<input type="checkbox"/> Unit S001	N/A	

[apply]

## 2. ... Continue



Data Server (DSS)  
IP Address: 192.168.0.220

Select the appropriate volume group (**vg00**) from the list on the left. In **Action** select a **new iSCSI volume** of the required size. This logical volume will be the iSCSI Target .

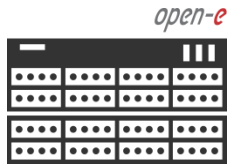
Select the appropriate volume. Next , select the required size of iSCSI volume. In this eg. Adding 200 GB for the iSCSI volume. After assigning an appropriate amount of space for the iSCSI volume, click the **apply** button.

The screenshot shows the open-e Volume manager interface. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: Configuration > Volume manager > Volume groups > vg00'. The left sidebar shows a tree view with 'Vol. groups' selected, containing 'vg00'. Below it, 'Vol. replication' is also visible. The main content area is titled 'Volume manager' and displays a table of system volumes:

System volumes	Size (GB)
SWAP	4.00
Reserved for snapshots	0.00
Reserved for system	4.00
Reserved for replication	0.00
Free	1854.91

Below the table, the 'Action' dropdown is set to 'new iSCSI volume'. The 'Options' dropdown is set to 'Just create volume'. There are checkboxes for 'Use volume replication' (unchecked), 'File I/O' (unchecked), and 'Initialize' (checked). The 'Rate' dropdown is set to 'medium'. Under 'Block I/O', there is a slider and a text input field with '200' and 'GB' next to it. At the bottom right, there is a red 'apply' button. A blue message at the bottom says 'Please apply changes or press "reload" button to discard'. The footer includes 'Event Viewer' and 'Data Storage Software V7 - All rights reserved'.

## 2. ... Continue



Data Server (DSS)  
IP Address: 192.168.0.220

The destination iSCSI Volume Block I/O is now configured.

The screenshot shows the open-e Volume manager interface. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: Configuration > Volume manager > Volume groups > vg00'. The 'Vol. groups' panel on the left shows 'vg00'. The main 'Volume manager' panel displays a success message: 'Logical volume lv0000 has been created successfully.' Below this is a table of logical volumes:

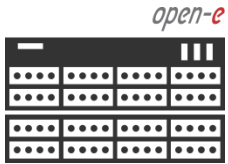
Logical Volume	Type	Snap.	Rep.	Init.	Blocksize (bytes)	Size (GB)
lv0000	iSCSI				N/A	200.00

Below the table, the 'System volumes' section shows the following details:

System volumes	Size (GB)
SWAP	4.00
Reserved for snapshots	0.00
Reserved for system	4.00
Reserved for replication	0.00
Free	1654.91

The 'Action:' dropdown is set to 'new NAS volume'. There are checkboxes for 'Use volume replication' and 'WORM', both of which are unchecked. A progress bar shows the current size (0 GB) and the total free space (1654.91 GB). The 'add:' field is set to '0.00 GB'. An 'apply' button is located at the bottom right of the configuration panel.

## 2. ... Continue



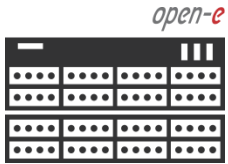
Data Server (DSS)  
IP Address: 192.168.0.220

Choose "**CONFIGURATION**", "**iSCSI target manager**" and "**Targets**" from the menu.

In the **Create new target**, click the **apply** to confirm

The screenshot shows the open-e web interface. The top navigation bar includes 'SETUP', 'CONFIGURATION', 'MAINTENANCE', 'STATUS', and 'HELP'. The breadcrumb trail indicates the current location: 'You are here: Configuration > iSCSI target manager > Targets'. The main content area is divided into two panels. The left panel, titled 'Targets', is currently empty. The right panel, titled 'Create new target', contains a form with the following fields: 'Target Default Name' (checked), 'Name' (input field with value 'iqn.2016-07:dss1.target0'), and 'Alias' (input field with value 'target0'). Below the form is a red 'apply' button. A second panel, titled 'Discovery CHAP user access', has two radio button options: 'No discovery CHAP user access authentication' (selected) and 'Enable discovery CHAP user access authentication'. A red 'apply' button is also present at the bottom of this panel. At the bottom of the interface, there is an 'Event Viewer' section and a footer with the text 'Data Storage Software V7 - All rights reserved'.

## 2. ... Continue



Data Server (DSS)  
IP Address: 192.168.0.220

Select **target0** within the Targets field.

To assign a volume to the target, click the **attach** button located under Action.

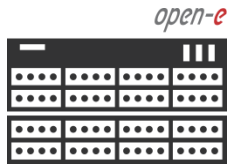
The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb trail indicates the path: Configuration > iSCSI target manager > Targets > iqn.2016-07:dss1.target0 (target0). The 'Targets' section displays a list with 'target0' selected. The 'Target volume manager' section contains an information box, a table of logical volumes attached to the target (currently empty), and a table of available logical volumes. The available volumes table has the following data:

Volume	Type	SCSI ID	LUN	Access mode	Action
lv0000	iSCSI	3jAVldKaKxbSO3XP	0	write-through	attach

The 'CHAP user access authentication' section has two radio buttons: 'No CHAP user access authentication' (selected) and 'Enable CHAP user access authentication'. An 'apply' button is at the bottom right of this section.



## 2. ... Continue



Data Server (DSS)  
IP Address: 192.168.0.220

The destination iSCSI target is now configured.

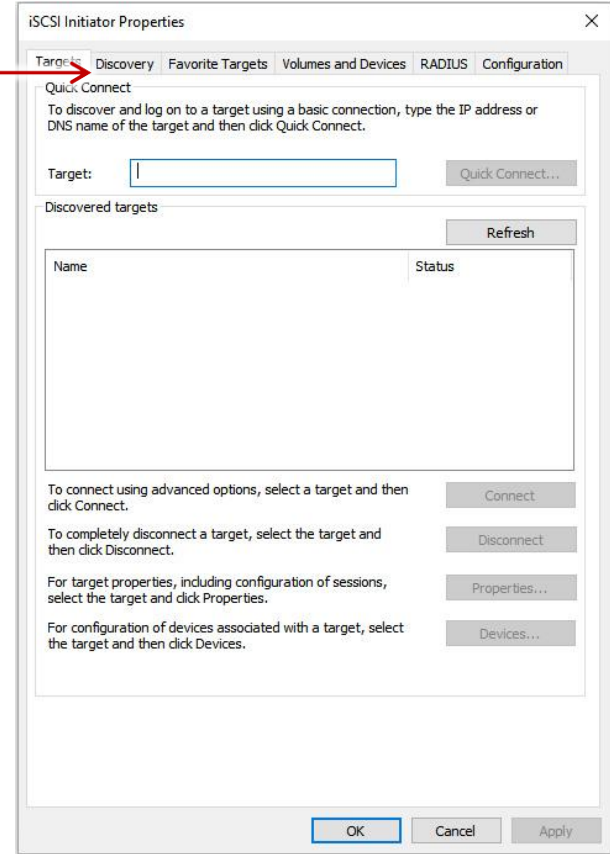
The screenshot shows the open-e web interface for configuring an iSCSI target. The breadcrumb trail indicates the path: Configuration > iSCSI target manager > Targets > iqn.2016-07:dss1.target0 (target0). The main content area is divided into three sections: 'Targets', 'Target volume manager', and 'CHAP user access authentication'. The 'Targets' section shows a list with one entry, 'target0'. The 'Target volume manager' section contains an 'Info' box with a warning about LUN 0, a table of logical volumes attached to the target, and a section for available logical volumes. The 'CHAP user access authentication' section has two radio button options: 'No CHAP user access authentication' (selected) and 'Enable CHAP user access authentication'. A red arrow points from the 'target0' entry in the 'Targets' list to the 'Logical volumes attached to this target' table. The table has columns for Volume, Type, SCSI ID, LUN, Access mode, and Action. One volume is listed: 'lv0000' (Type: iSCSI), SCSI ID '3jAVldKaKxbSO3XP', LUN '0', Access mode 'write-through', and an Action button labeled 'detach'. The 'Available logical volumes' section is empty, showing 'No logical volumes available.' The 'CHAP user access authentication' section has an 'apply' button at the bottom right. The footer includes 'Event Viewer' and 'Data Storage Software V7 - All rights reserved'.

Volume	Type	SCSI ID	LUN	Access mode	Action
lv0000	iSCSI	3jAVldKaKxbSO3XP	0	write-through	detach

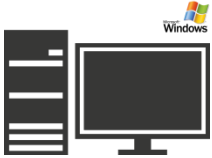
## 3. Configure iSCSI Target Properties



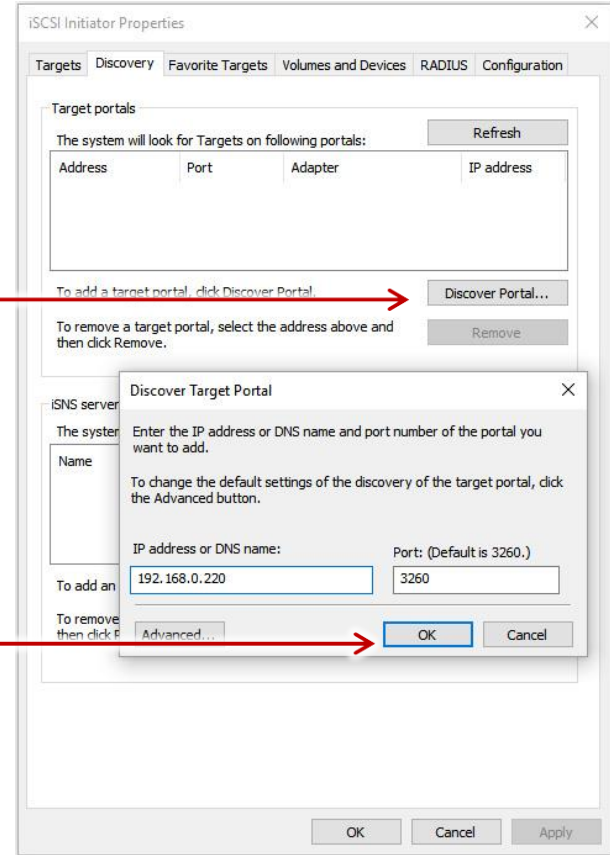
In the MS Windows Environments run "**iSCSI Initiator Properties**". After running the program click on the "**Discovery**" tab.



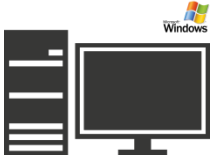
## 3. ... Continue



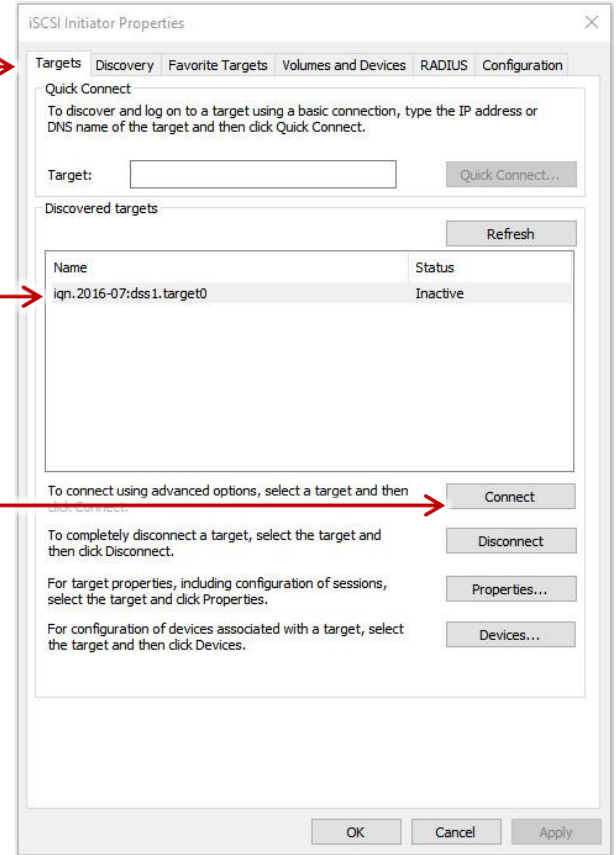
Next, click on "**Discover Portal...**" button. In "**Discover Target Portal**" windows then enter the IP address of the DSS V7 server and click on the "**OK**" button.



## 3. ... Continue



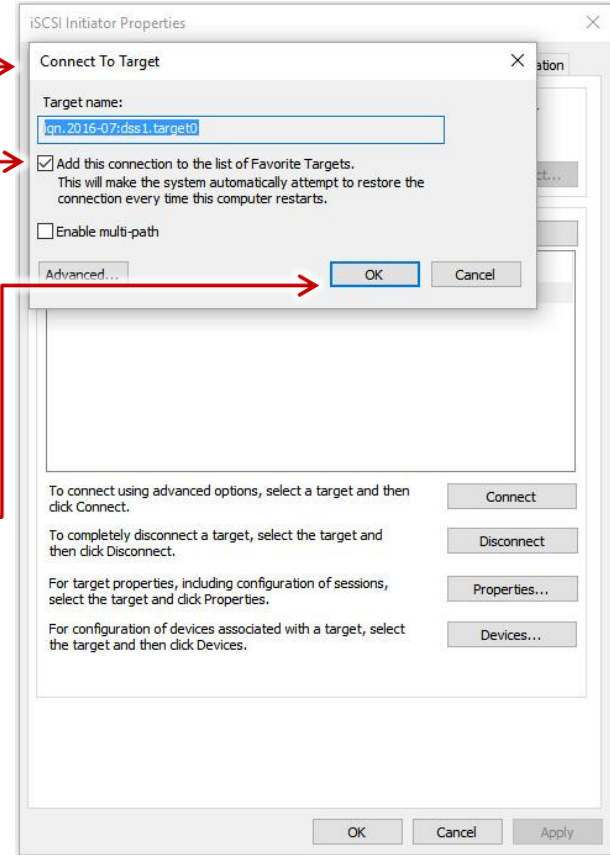
Go to the "**Targets**" tab. You should see the name of your iSCSI Target in the list. Select your target server and click "**Connect**" button.



## 3. ... Continue



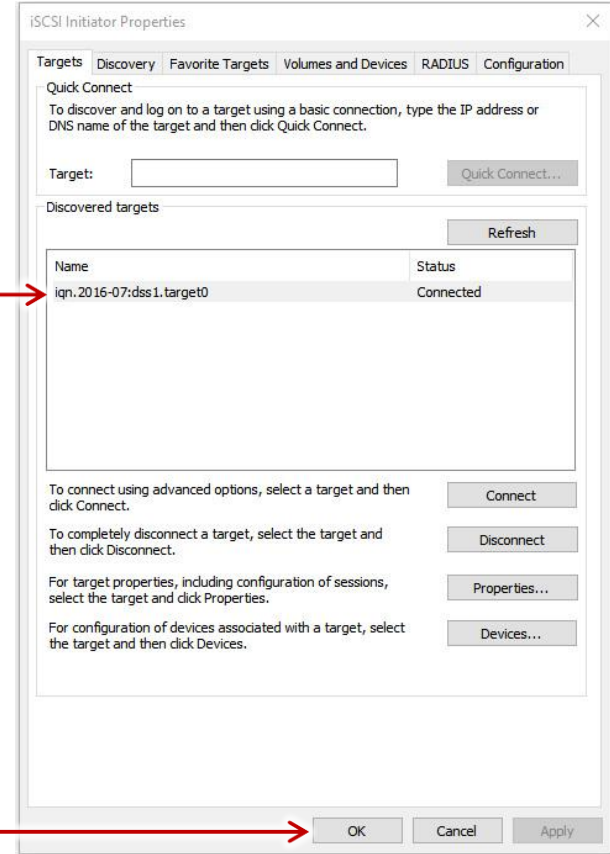
In "**Connect to Target**" windows please check to "Automatically attempt to restore the connection every time this computer restarts" and click "**OK**".



## 3. ... Continue



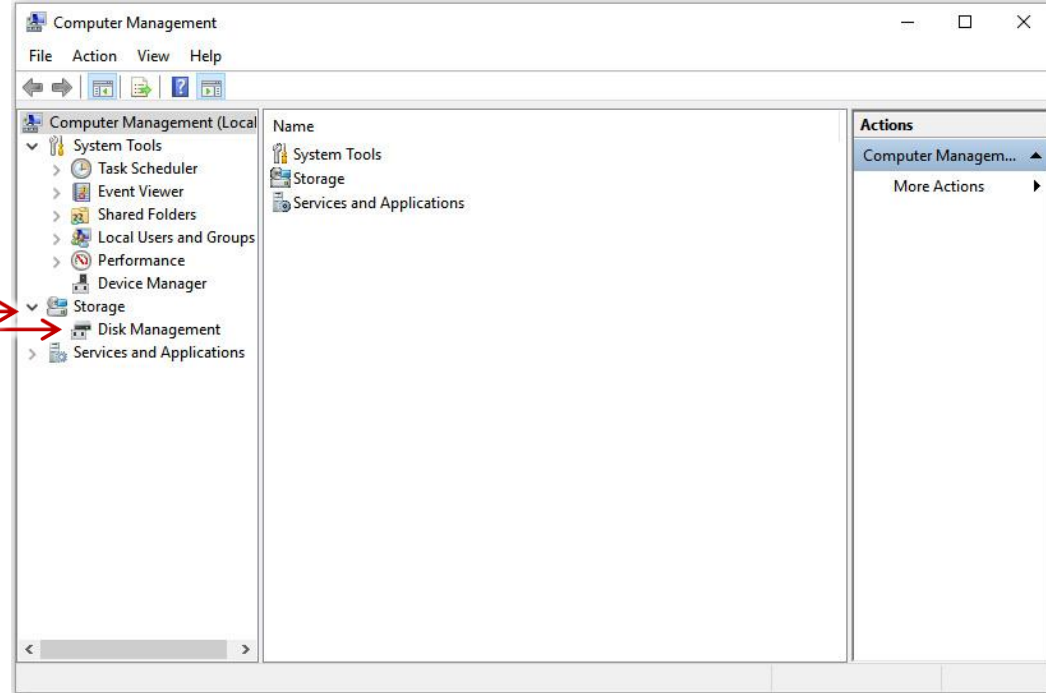
You should now see that you are "**Connected**". Click "**OK**" and close out the **iSCSI Initiator Properties**.



## 4. Initialize the disk from iSCSI target



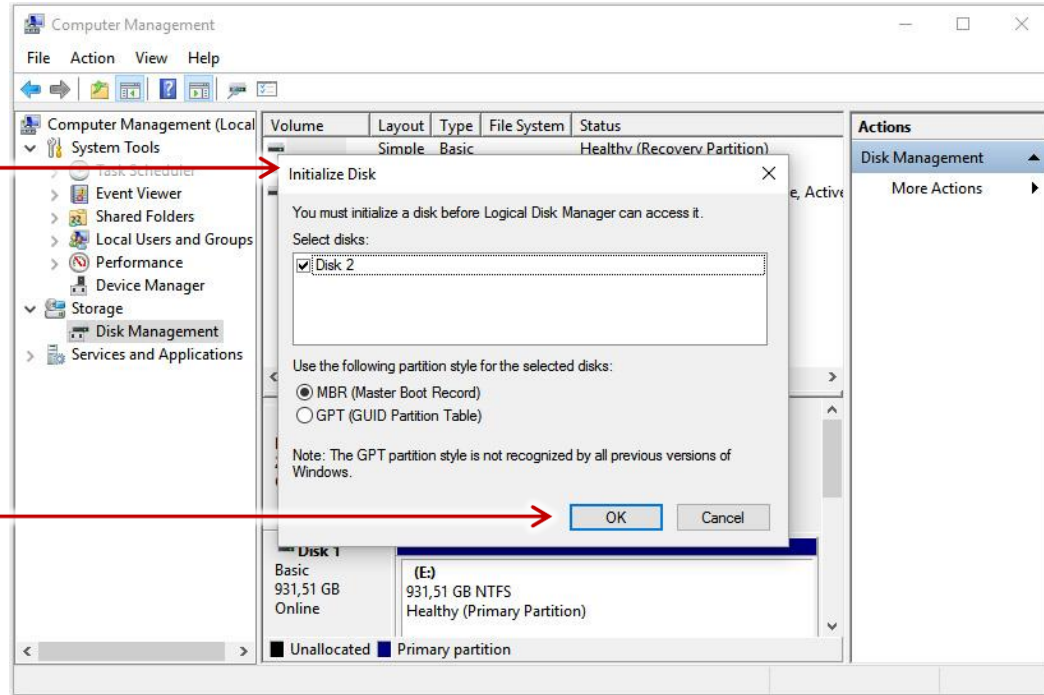
Now click on "Administrative Tools", open "Computer Management", and click on "Storage" -> "Disk Management". You will have to initialize the disk if it hasn't been used before.



## 4. ... Continue



After connecting to Logical Disk Manager in "**Disk Management**" there will appear "**Initialize Disk**". In this example, before you connect to the Logical Disk Manager, please click, "**OK**" button.

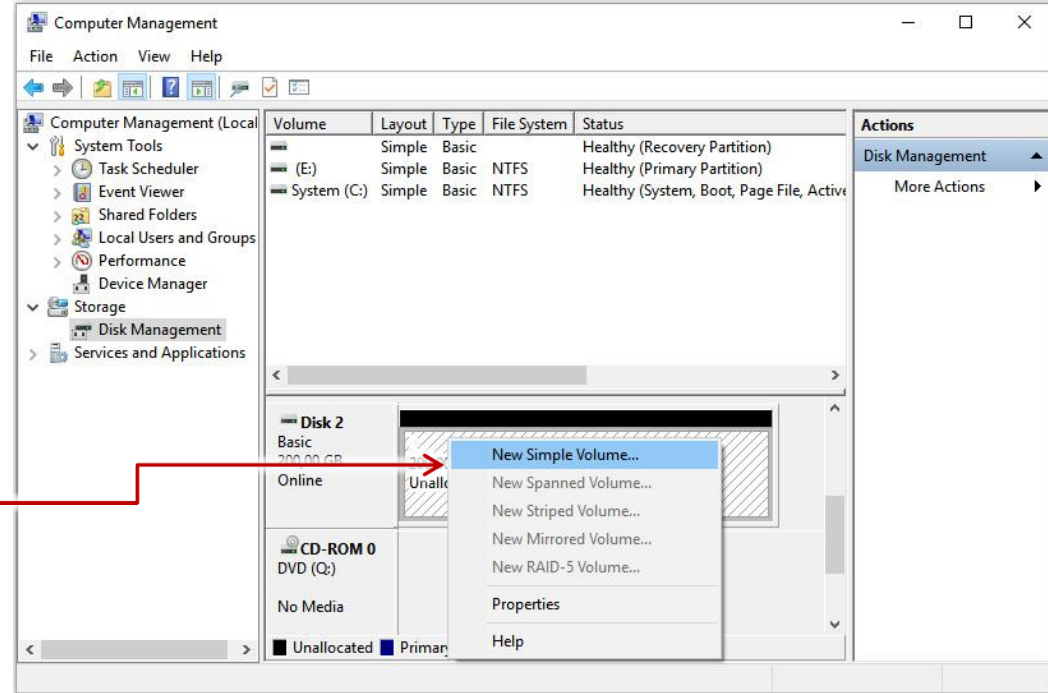




## 4. ... Continue



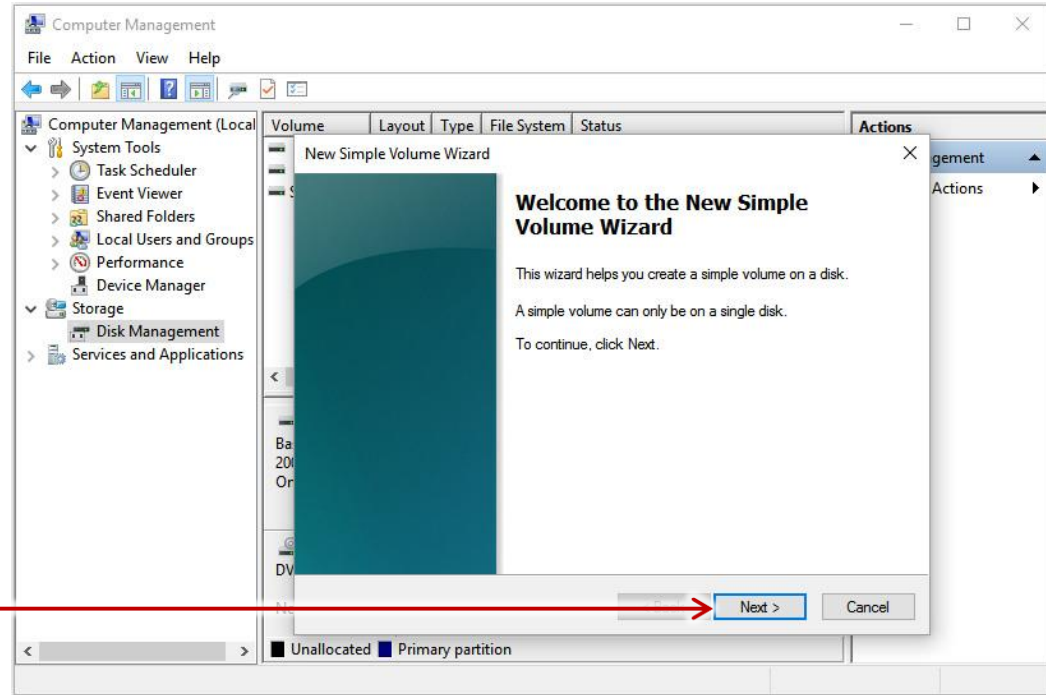
Right click on the Disk 2 and click on **"New Simple Volume"**.



## 4. ... Continue



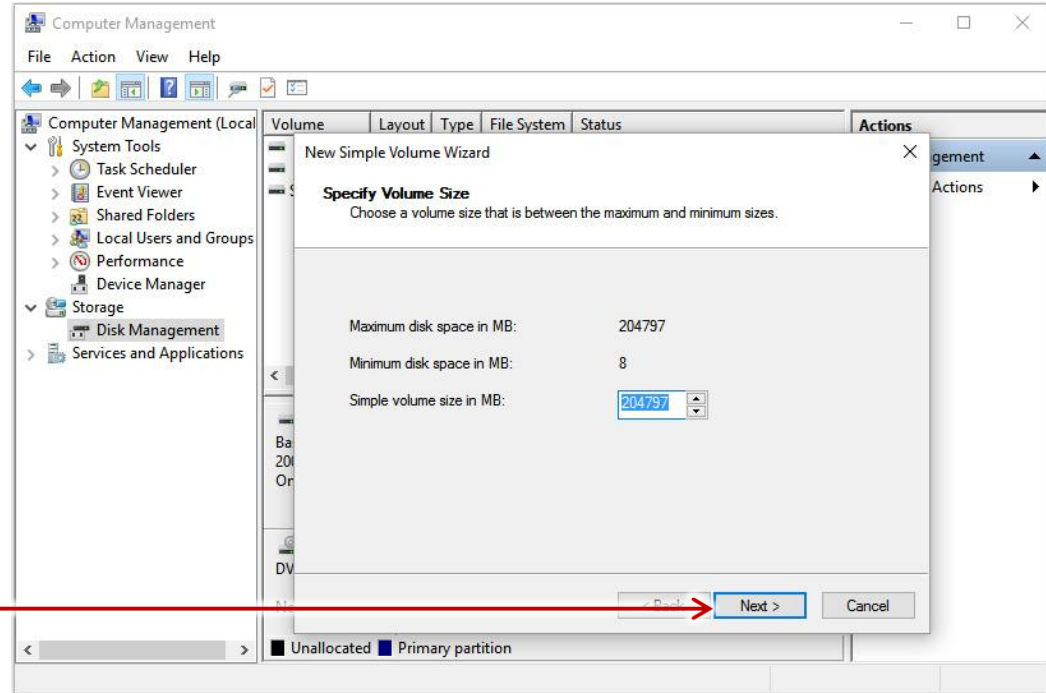
In "New partition Wizard" click "Next" button.



## 4. ... Continue



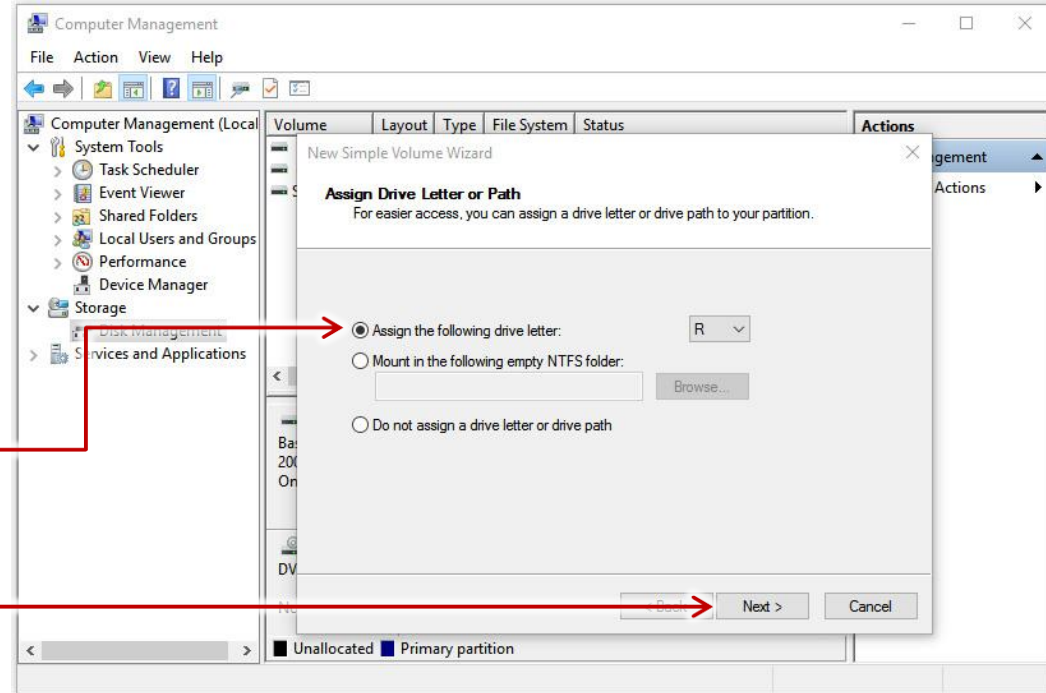
In order to use the maximum disk space on the disk click the "**Next**" button.



## 4. ... Continue



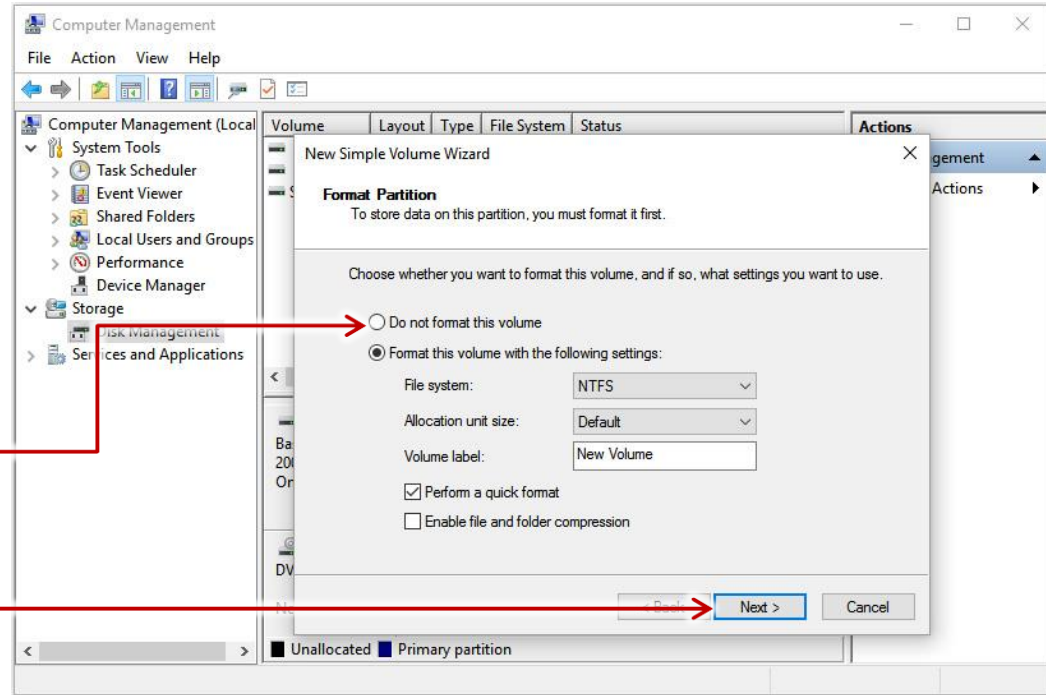
Next assign the drive letter (in this example as R), and click the button "Next" button.



## 4. ... Continue



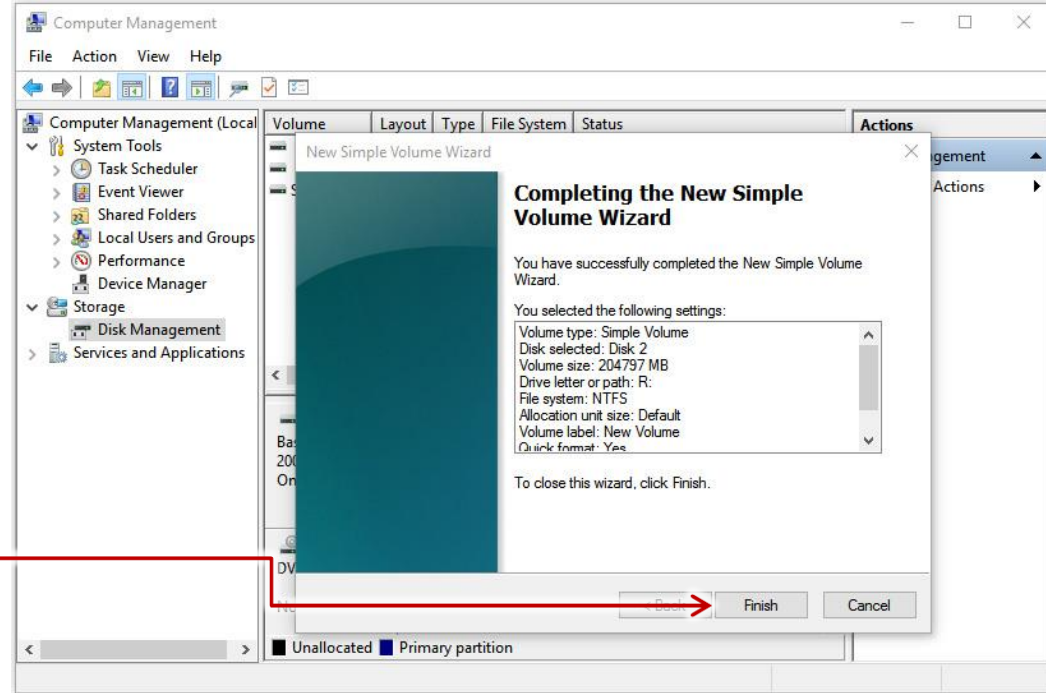
In the MS Windows **New Simple Volume Wizard** select the format of choice, in this example we will use the NTFS File system then check the Perform a quick format and click "**Next**" to complete the format.



## 4. ... Continue



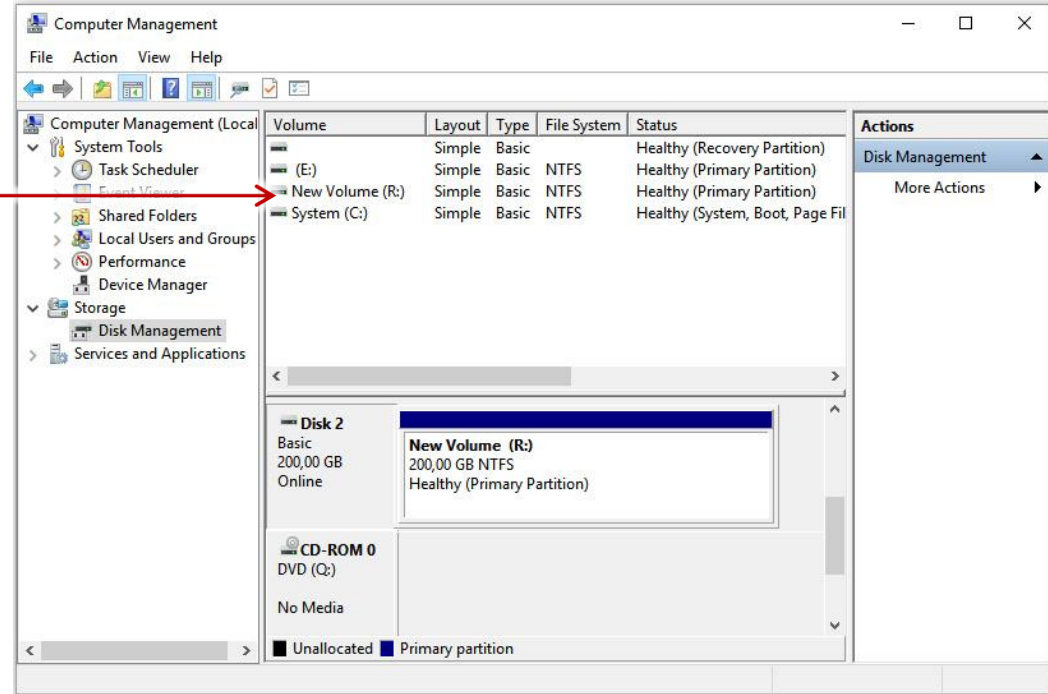
Next click **"Finish"** to close **New Simple Volume Wizard**.



## 4. ... Continue



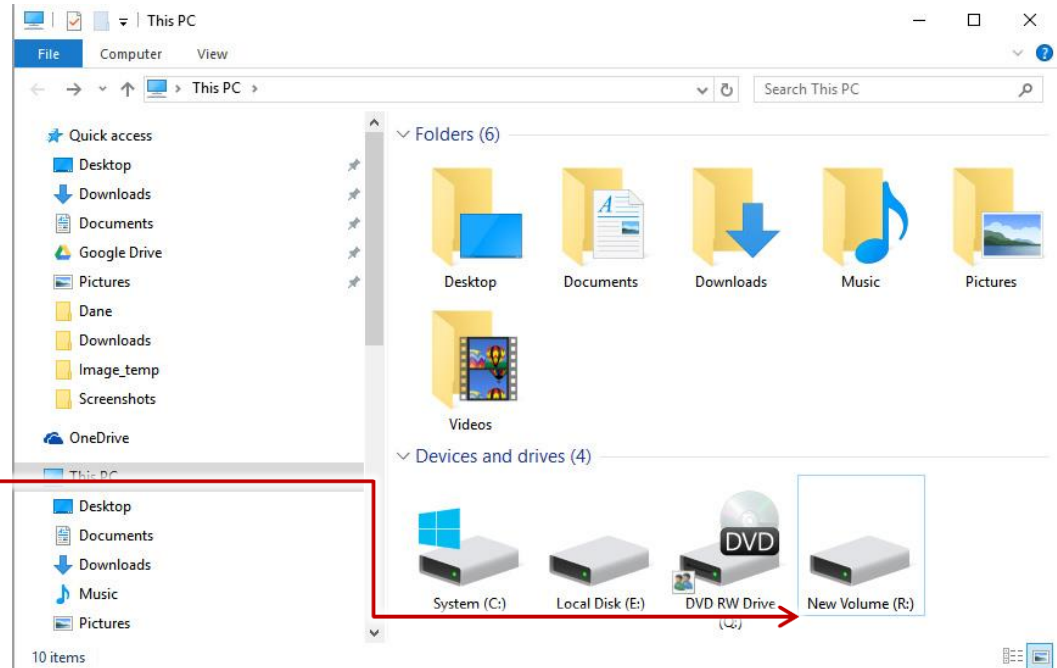
When you are done, your disk manager should look like this:



## 5. Accessing to the disk



You can now access your shared iSCSI disk in "This PC" as a drive letter **R**.



The configuration of connecting to an iSCSI Target Volume in MS Windows is now complete.



*open-e*

Thank You!

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