Raw Device Mappings

What is raw device mapping?

Raw device mapping is a feature where the virtual machine can directly access the storage devices such as SAN or DAS.

With a VMware we will use vmdk pointer to provide the proxy facility to raw device.

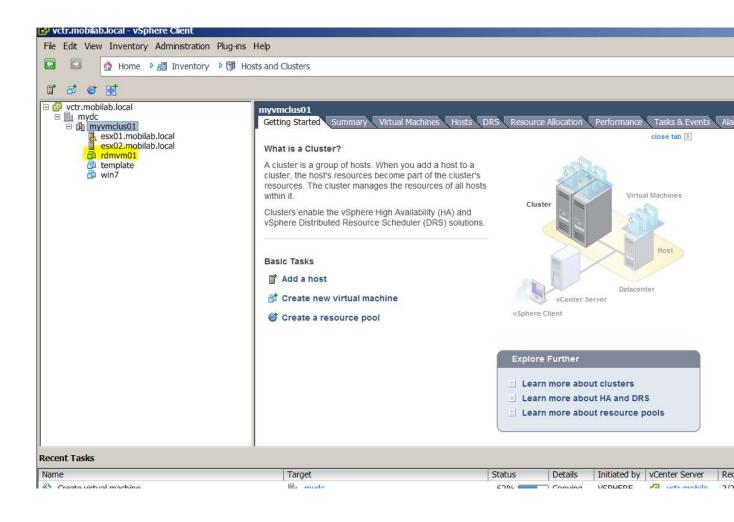
In a virtual environment some cases we may need to have a raw device mappings.

Why we need raw device mapping?

- To configure Microsoft failover cluster, we can configure raw device as shared storage.
- When we are configuring Microsoft failover cluster with one node is running on as a VM & other node/s running as a physical.
- To run some of the san management software(ex hitachi horcm)
- To run some backup software on virtual machine, and needs to get storage level backup

How to Configure?

• Here I have one vm which is prepared to mount raw device



• Using new datastore adding procedure, we can see new lun which is provided from our shared storage(in my case im using windows iscsi server)

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3. Go to add hardware wizard of virtual machine and select hard disk

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4. Select "Raw Device Mappings"

Hardware Options Resources v	Add Remove	Memory Contiguration
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Image: Solution of the soluti	512 Add Hardware Vide Select a Disk Opp Select a Disk Select a Disk Select a Disk Select Target LUN Select Datastore Compatibility Mode Advanced Options Ready to Complete Select Disk	A virtual disk is composed of one or more files on the host file system. Together these files appear as a single hard disk to the guest operating system. Select the type of disk to use. Disk C Create a new virtual disk C Use an existing virtual disk. Reuse a previously configured virtual disk. Raw Device Mappings Give your virtual machine direct access to SAN. This option allows you to use existing SAN commands to manage the storage and continue to access it using a
	_	< Back Next > Cancel
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5. Select the Raw device lun

Image: Select and Configure a Raw LUN Which LUN would you like to use for this raw disk? Image: Select and Sel	Clear Capaci 1.00
P Which LUN would you like to use for this raw disk? P Device Type Select a Disk Select Target LUN Select Datastore Compatibility Mode Advanced Options Name Identifier Path ID LUN Identifier	Capaci
Device Type Select a Disk Name, Identifier, Path ID, LUN or Capacity contains: * Select Target LUN Select Datastore Compatibility Mode Advanced Options Name Identifier Path ID LUN	Capaci
Select Target LUN Select Datastore Compatibility Mode Advanced Options Name Identifier Path ID LUN	
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6. We can select location for VMDK pointer(raw device mapping pointer)

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- 7. There are two options
 - a. Physical
 - b. Virtual- In a virtual mode we can take the snapshots

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8. With physical mode of the raw device, we cannot take snapshots.

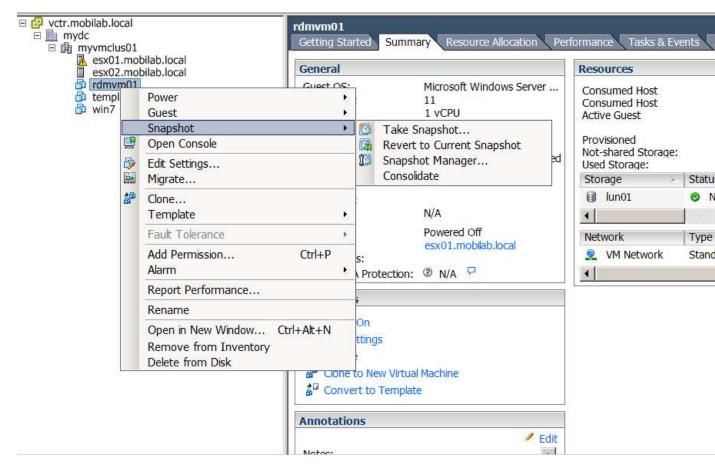


9. We can see vmdk pointer which is used to proxy our raw lun in our datastore.

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10 . With a virtual mode we can take the snapshots



11. If want we can change the multipathing policy as same as datastore

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🗗 winŻ	Hard disk 1 Virtual Disk Floppy drive 1 Client Device	Mode	
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