

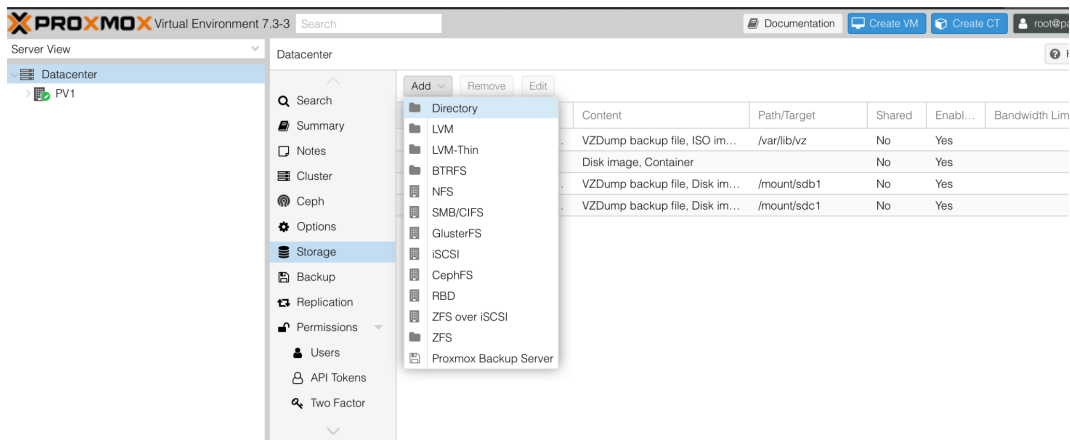
INSTALLATION OF ZONE CONTROLLERS AND MMRS IN PROXMOX VIRTUALIZATION ENVIRONMENT

Steps

1. Install the Proxmox server on a Virtual box
2. Partition the storage
3. Make the partition as directory storage
4. Move the files from the host pc to your Proxmox server
5. Change the file format from vmdk to raw
6. Create 2 Virtual machines one for MMR and another for ZCs
7. set up the storage
8. Start the VM and Console
9. Setup the network

Make the partition as directory storage

3.Datacenter >>Storage>>Add>>Directory



Create a new directory storage

Add: Directory ⊗

General Backup Retention

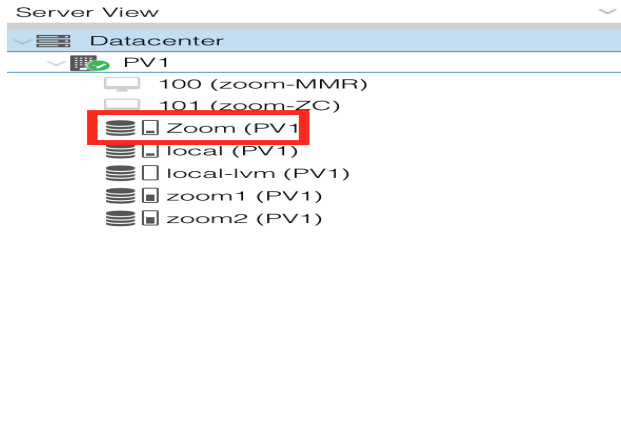
ID: Nodes: ✕ ▾

Directory: Enable:

Content: Shared:

ⓘ Help Advanced Add

You can see the new directory storage like this



4. Move the files from host PC to Proxmox nodes

Use SCP or WinSCP/Filezilla to upload the MMR and ZC files to proxmox nodes

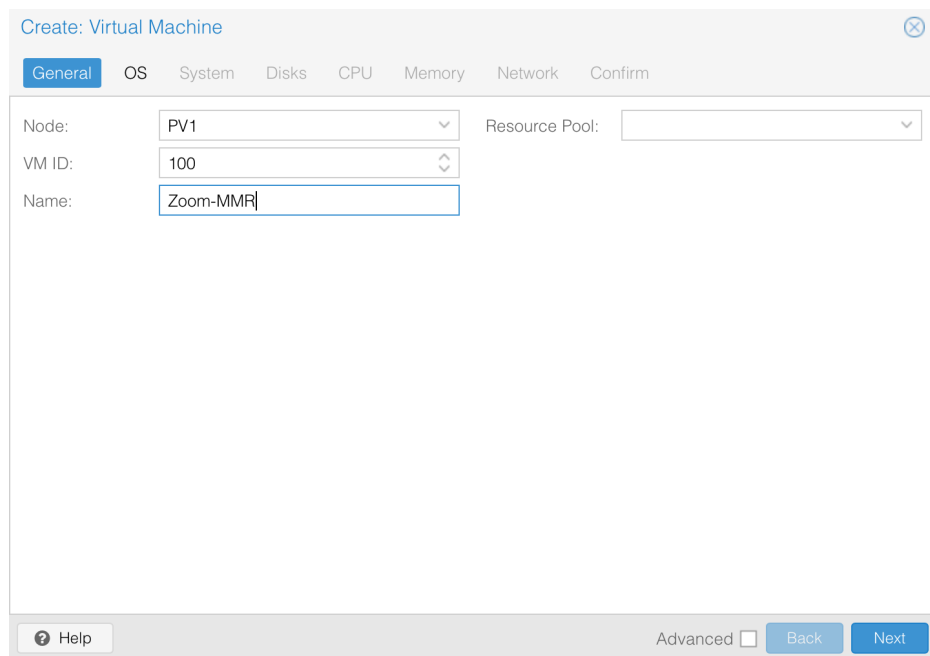
```
SCP: scp /Users/mercy/Downloads/ZC.vmdkroot@192.248.4.96:/mount/sdb1  
      scp /Users/mercy/Downloads/MMR.vmdkroot@192.248.4.96:/mount/sdb1
```

Proxmox doesn't support OVF or VMDK format

5. Convert into .raw or .qcow2 format

- **Cd /mount/sdb1** where the vmdk files are stored
- **qemu-img convert -f vmdk mmr.vmdk -O raw MMR.raw**
- Or
- **qemu-img convert -f vmdk mmr.vmdk -O qcow2 MMR.qcow2**

6. Create MMR and ZC virtual machines



The screenshot shows the 'Create: Virtual Machine' dialog box in Proxmox VE. The 'General' tab is selected, and the following fields are visible:

- Node:** PV1 (dropdown menu)
- Resource Pool:** (empty dropdown menu)
- VM ID:** 100 (dropdown menu)
- Name:** Zoom-MMR (text input field)

At the bottom of the dialog, there is a 'Help' button, an 'Advanced' checkbox (unchecked), and 'Back' and 'Next' buttons.

We do not need any media we will use the MMRand ZC and both support in linux

Create: Virtual Machine ⓧ

General **OS** System Disks CPU Memory Network Confirm

Use CD/DVD disc image file (iso)
Storage: local
ISO image:

Guest OS:
Type: Linux
Version: 5.x - 2.6 Kernel

Use physical CD/DVD Drive

Do not use any media

Advanced Back Next

Create: Virtual Machine ⓧ

General OS **System** Disks CPU Memory Network Confirm

Graphic card: Default SCSI Controller: VirtIO SCSI single

Machine: Default (i440fx) Qemu Agent:

Firmware

BIOS: Default (SeaBIOS) Add TPM:

Help Advanced Back Next

This disk will not be used and removed later. the ZC.raw and MMR.raw disk will be used

Create: Virtual Machine ✕

General OS System **Disks** CPU Memory Network Confirm

scsi0 🗑️

Disk Bandwidth

Bus/Device: SCSI 0 Cache: Default (No cache)

SCSI Controller: VirtIO SCSI single Discard:

Storage: local-lvm IO thread:

Disk size (GiB): 32

Format: Raw disk image (raw)

➕ Add

🔍 Help Advanced Back Next

Minimum number of CPU cores is 4

The screenshot shows the 'Create: Virtual Machine' dialog box with the 'CPU' tab selected. The 'Sockets' field is set to 1, and the 'Cores' field is set to 4. The 'Type' dropdown is set to 'Default (kvm64)'. The 'Total cores' is displayed as 4. The dialog includes a 'Help' button, an 'Advanced' checkbox, and 'Back' and 'Next' buttons.

Sockets:	1	Type:	Default (kvm64)
Cores:	4	Total cores:	4

Minimum RAM size is 8GB

The screenshot shows the 'Create: Virtual Machine' dialog box with the 'Memory' tab selected. The 'Memory (MiB)' field is set to 8192. The dialog includes a 'Help' button, an 'Advanced' checkbox, and 'Back' and 'Next' buttons.

Memory (MiB):	8192
---------------	------

Create: Virtual Machine



General OS System Disks CPU Memory **Network** Confirm

No network device

Bridge:

Model:

VLAN Tag:

MAC address:

Firewall:

Help

Advanced

Back

Next

Create: Virtual Machine ✕

General OS System Disks CPU Memory Network **Confirm**

Key ↑	Value
cores	4
ide2	none,media=cdrom
memory	8192
name	Zoom-MMR
net0	virtio,bridge=vibr0,firewall=1
nodename	PV1
numa	0
ostype	l26
scsi0	local-lvm:32,iothread=on
scsihw	virtio-scsi-single
sockets	1
vmid	100

Start after created

Advanced **Back** **Finish**

Remove the unused disk and CD/DVD

- Attaching MMR and ZC disks on MMR and ZC machines

Summary Console Hardware Cloud-Init Options Task History Monitor Backup Replication Snapshots

Add Remove Edit Resize disk Move disk Revert

Memory	8.00 GiB
Processors	4 (1 sockets, 4 cores)
BIOS	Default (SeaBIOS)
Display	Default
Machine	Default (i440fx)
SCSI Controller	VirtIO SCSI
CD/DVD Drive (ide2)	none,media=cdrom
Hard Disk (scsi0)	NL-UGC3PAR-1:vm-133-disk-0,size=32G
Network Device (net0)	virtio=B2:13:87:16:A7:81,bridge=vibr0,firewall=1

6) Obtain VMID

- And the storage that will be assigned on the machines
- **sudo qm importdisk <vmid> ZC.raw <Directory storage>**
- **sudo qm importdisk <vmid> MMR.raw <Directory storage>**

7) Select Bus/Device as IDE

Add: Unused Disk ⊗

Disk Bandwidth

Bus/Device: Cache:

Disk image: Discard:

IO thread:

? Help Advanced **Add**

8) Rearrange the boot order

Edit: Boot Order ⊗

#	Enabled	Device	Description
1	<input checked="" type="checkbox"/>	net0	virtio=36:38:70:2E:AE:A6,bridge=vmbr0,firewall=1
2	<input checked="" type="checkbox"/>	ide0	zoom2:101/vm-101-disk-0.raw,size=100G

Drag and drop to reorder

? Help **OK** **Reset**

9) Start the VM and access the console

Once you logged in **change the password of the admin**

Network Configuration of MMR and ZC

sudo vi /etc/sysconf ig/network-scripts/<ifcfg-xx>

```
TYPE=Ethernet
PROXY_METHOD=none
BROWSER_ONLY=no
BOOTPROTO=none
IPADDR=192.168.1.116
NETMASK=255.255.255.0
GATEWAY=192.168.1.1
DNS1=8.8.8.8
DEFROUTE=yes
IPV4_FAILURE_FATAL=no
IPV6INIT=yes
IPV6_AUTOCONF=yes
IPV6_DEFROUTE=yes
IPV6_FAILURE_FATAL=no
IPV6_ADDR_GEN_MODE=stable-privacy
NAME=eth0
DEVICE=eth0
UUID=a562c685-46d9-4373-9223-79c30306e7ad
ONBOOT=yes
```

Add

the static ip address

Gateway

Netmask

10)Restart the network service

sudo service network restart

11)Ping the ip to see if reachable

12)Open Browser

Browse to <https://<ip-address>:5480>