



**≪** #1

# Where does Proxmox store virtual machines?

≗ mybne · ③ Feb 13, 2022

♠ > Forums > Proxmox Virtual Environment > Proxmox VE: Installation and configuration





# mybne New Member

2

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Feb 13, 2022

I am trying to locate the virtual machine files. Where to look and what to look? (Sorry newbie on proxmox)

#### Code:

dir: local

path /var/lib/vz
content backup,vztmpl,iso

content backup, vztmpt, tsc

zfspool: local-zfs

pool rpool/data

content images,rootdir

sparse 1

zfspool: SSD01

pool SSD01

content images,rootdir
mountpoint /SSD01

Hodirepoetie / 55001

nodes ve

zfspool: SSD23

pool SSD23

content rootdir,images

mountpoint /SSD23

nodes ve

zfspool: HDD24TB

pool HDD24TB

content rootdir,images
mountpoint /HDD24TB

nodes ve

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Feb 13, 2022 < #2

the config files for containers are here

Renowned Member

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Code:

/etc/pve/lxc

and for virtual machines, they are here

Code:

/etc/pve/qemu-server

The virtual disks will be where you choose at creation time - rpool/data, /SSD01, /SSD23 or /HDD24TB



mybne New Member

Feb 14, 2022

\$ #3

I found and checked the given locations including all SSD and rpool but none of them returns any file when I use ls -l command.



#### Dunuin

Distinguished Member

Feb 14, 2022

#4

There are no virtual disk files. ZFS uses zvols which are block devices.



#### oguz

Proxmox Retired Staff

**Retired Staff** 

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mybne said: ්්

Feb 14, 2022

**ぺ** #5

I found and checked the given locations including all SSD and rpool but none of them returns any file when I use Is -I command.

you can run something like <code>grep size /etc/pve/qemu-server/\*.conf</code> to get the disks and their corresponding storages.

as @Dunuin pointed out above, for ZFS there are no files but block devices. you could list them like: zfs list

mybne said: 5

I am trying to locate the virtual machine files.

the question is, what would you like to do with them?

Best regards,

Oguz

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# mybne

**New Member** 

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Feb 14, 2022 < #6

oguz said: 5

you can run something like <code>grep size /etc/pve/qemu-server/\*.conf</code> to get the disks and their corresponding storages.

as @Dunuin pointed out above, for ZFS there are no files but block devices. you could list them like: zfs list

the question is, what would you like to do with them?

I will try first thing in the morning. My intention was getting those virtual machines out of the broken proxmox instance. While I was trying to configure https I deleted default certificates and now I cannot access the proxmox UI. Very exciting start but so far not so good



#### aaron

**Proxmox Staff Member** 

Staff member

~

Feb 14, 2022 < #7

Regarding the first question. Proxmox VE will not always store VM disk images in files. In the case of ZFS for example, it is using "volume" datasets.

They are providing block devices and are therefore not visible in the file system hierarchy. You can view them with <code>zfs list</code> and should see that they do not have a mount point. You can access them, like any physical disk, in the <code>/dev/</code> path.

For example, /dev/zvol/<pool>/....

Best regards,

Aaron

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**\$** #8



#### mybne

**New Member** 

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Feb 14, 2022

aaron said: 5

Regarding the first question. Proxmox VE will not always store VM disk images in files. In the case of ZFS for example, it is using "volume" datasets.

**\$** #9

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**\$** #12

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In my case, since I can no longer fix this instance, what would be the right course of action to migrate the VMs to the new machine?



# FuriousRage

**Active Member** 

Feb 14, 2022

mybne said: 5

In my case, since I can no longer fix this instance, what would be the right course of action to migrate the VMs to the new machine?

When i moved my vms from my home server to a rented one, i created a backup of each vm and transfered the back up files, and then used restore on each backup



#### Dunuin

Distinguished Member

Feb 15, 2022

If just your webUI is broken you can still create VM backups using vzdump from CLI using SSH. See here: https://pve.proxmox.com/pvedocs/vzdump.1.html



#### mybne

**New Member** 

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Feb 15, 2022

Thank you for the guidance, but I prefer to not continue working on a cripled system. After all, I noticed it is difficult to work with proxmox in case something goes wrong compared to VMware and Hyper-V.



#### oguz

**Proxmox Retired Staff** 

**Retired Staff** 

~

Feb 15, 2022

#### mybne said: 5

I will try first thing in the morning. My intention was getting those virtual machines out of the broken proxmox instance. While I was trying to configure https I deleted default certificates and now I cannot access the proxmox UI.

also you shouldn't delete/modify the default certificates, this is well documented [0]:

Do not replace or manually modify the automatically generated node

certificate files in /etc/pve/local/pve-ssl.pem and /etc/pve/local/pve-ssl.key or the cluster CA files in /etc/pve/pve-root-ca.pem and /etc/pve/priv/pve-root-ca.key.

though you can regenerate the certificates. just connect to your node via SSH (this should be possible even if the GUI is not working), and run this command: pvecm updatecerts. you should have new certificate files in /etc/pve/local/

## mybne said: 5

Thank you for the guidance, but I prefer to not continue working on a cripled system.

since you want to export your VM disks, you can just make backups of your VMs and restore them elsewhere. take a look at this chapter [1]

#### mybne said: 5

After all, I noticed it is difficult to work with proxmox in case something goes wrong compared to VMware and Hyper-V.

hmm, i noticed it's difficult for something to go wrong if you're following our documentation and not ignoring the warnings could you elaborate and let us know what we could improve?

[0]: https://pve.proxmox.com/pve-docs/pve-adminguide.html#sysadmin\_certs\_api\_gui

[1]: https://pve.proxmox.com/pve-docs/pve-admin-guide.html#\_examples\_11

Best regards,

Oguz

Do you already have a Commercial Support Subscription? - If not, Buy now and read the documentation



#### mybne

**New Member** 



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Feb 15, 2022 < #13

### oguz said: 5

also you shouldn't delete/modify the default certificates, this is well documented [0]:

though you can regenerate the certificates, just connect to your node via SSH

Click to expand...

Dear Oguz, The reason I am here as a newbie is ironically following the wrong proxmox documentation which was for an earlier version of proxmox. Any system can have disaster but there must be restoration chance. I will check the documents and video tutorials to be fair towards this project because developers putting so much effort and sharing with us for free. I see here staff members also trying to help and I am really appreciated for this.

Oguz



# <mark>lps90</mark> Member

~

Feb 20, 2023

**∜** #14

#### oguz said: 5

you can run something like <code>grep\_size</code> /etc/pve/qemu-server/\*.conf to get the disks and their corresponding storages.

as <a>@Dunuin</a> pointed out above, for ZFS there are no files but block devices. you could list them like: <a>zfs</a> list</a>

the question is, what would you like to do with them?

Mine shows "scsi0: local:1000/vm-1000-disk-0.qcow2,size=250G" So where is the location? i can't find it with this info.



# Neobin Famous Member

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Feb 20, 2023

**≪** #15

# Ips90 said: 5

Mine shows "scsi0: local:1000/vm-1000-disk-0.qcow2,size=250G" So where is the location? i can't find it with this info.

Full path for this vdisk should be: /var/lib/vz/images/1000/vm-1000-disk-0.qcow2 Check with: pvesm path local:1000/vm-1000-disk-0.qcow2



## <mark>lps90</mark> Member

~

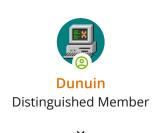
Feb 20, 2023



My proxmox is showing the same space being used even after i deleted 50GB of files from a VM and some LXC's 88.91% (388.51 GB of 436.95 GB)

i already used "qm rescan" and even restarted the dedicated server, nothing changed.

Any possible solution?



Feb 21, 2023

You set up discard in your VM and regularily run pct fstrim?

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Feb 21, 2023



**4** #17

<mark>lps90</mark> Member Dunuin said: 5

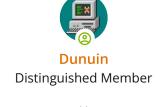
You set up discard in your VM and regularily run pct fstrim?

Discard part yes, "run pct fstrim" not.

Anyway, pct fstrim is not only for LXC containers? Cause i am talking about VM's. btw, containers can not use "discard".

So what i need to do for VM's?

Last edited: Feb 21, 2023



Feb 21, 2023

**«** #19

Ips90 said: 5

i deleted 50GB of files from a VM and some LXC's

Yes, "pct fstrim" is to trim LXCs on LVM-Thin. LXCs on ZFS you trim by "zpool trim".

lps90 said: 5

So what i need to do for VM's?

If it is a linux VM a <code>fstrim -a</code> inside the VM. On a Win VM something like a <code>Optimize-Volume -DriveLetter YourDriveLetter -ReTrim -Verbose</code>. And this of cause all only works when using proper settings like enabled "discard" checkbox and "virtio SCSI" with "SCSI" and not protocols like IDE that doesn't support TRIM commands.

lps90



Feb 21, 2023

**\$** #20

Thanks for the help mate.

I worked well for my linux vm's, the problem is i have FreeBSD vm's too and i

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