

# Resize pve root in proxmox

When proxmox is installed from ISO file, it provides a lot of storage for volume-storage, but not enough for pve-root

The pve-root is where your filesystem is mounted (you can find out more about volume-storage [here](#)).

There are times when you want to move some storage from pve-data to pve-root.

You will learn how to do this in this tutorial :-)

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You should first see how much space you have in all your storage volumes

The command is:

```
lvdisplay
```

This is what the output will look like:

```
root@pve:~# lvdisplay
--- Logical volume ---
LV Path                /dev/pve/swap
LV Name                 swap
VG Name                pve
LV UUID                niOT4X-rcyP-dKCD-sqAK-SWxy-dto9-vlbNjj
LV Write Access         read/write
LV Creation host, time proxmox, 2020-05-04 10:39:46 +0300
LV Status               available
# open                  2
LV Size                 7.00 GiB
Current LE              1792
Segments                1
Allocation              inherit
Read ahead sectors      auto
- currently set to      256
Block device            253:0

--- Logical volume ---
LV Path                /dev/pve/root
```

```
LV Name          root
VG Name          pve
LV UUID          OrPb0H-h1lm-OzZ8-C02y-6FHy-RAuV-ppfrQp
LV Write Access  read/write
LV Creation host, time proxmox, 2020-05-04 10:39:46 +0300
LV Status        available
# open          1
LV Size          14.75 GiB
Current LE       3776
Segments         1
Allocation       inherit
Read ahead sectors auto
- currently set to 256
Block device     253:1
```

--- Logical volume ---

```
LV Name          data
VG Name          pve
LV UUID          300Z5M-uV0c-tCXH-8Sz0-XZrk-2rZY-qQkvuR
LV Write Access  read/write
LV Creation host, time proxmox, 2020-05-04 10:39:46 +0300
LV Pool metadata data_tmeta
LV Pool data     data_tdata
LV Status        available
# open          0
LV Size          28.37 GiB
Allocated pool data 0.00%
Allocated metadata 0.02%
Current LE       7263
Segments         1
Allocation       inherit
Read ahead sectors auto
- currently set to 256
Block device     253:4
```

We can see that there are 28.37GB in pve-data and only 14.75GB in pve-root.

If for example, we want to resize pve-data to be 10GB

And gave pve-root all the other space

By using these commands, we can do it:

```
# Remove pve-data logical volume.
lvremove /dev/pve/data -y
```

```
# Create it again with a new size.  
lvcreate -L 10G -n data pve -T  
  
# Give pve-root all the other size.  
lvresize -l +100%FREE /dev/pve/root  
# Resize pve-root file system  
resize2fs /dev/mapper/pve-root
```

If you run `lvdisplay` again, you will see that pve-root has grown.

Finally, you can convert pve-data back to thin pool storage by running the following command:

```
lvconvert --type thin-pool pve/data
```

I hope this helps you

For suggestions on how to improve this tutorial, please contact me at [Yehudacorsia@gmail.com](mailto:Yehudacorsia@gmail.com)