

# Extend LVM after VM Disk resize

To extend LVM in a Linux VM after a disk resize in Proxmox, resize the partition, expand the Physical Volume (

), and extend the Logical Volume (

). The core commands to run inside the VM are `growpart /dev/sda 2` (adjust device), `pvresize /dev/sda2`, and `lvresize -l +100%FREE /dev/mapper/vg-lv`. ■

Steps to Extend LVM After Proxmox Disk Resize ■

1. **Resize Disk in Proxmox:** Go to the VM's **Hardware** tab, select the hard disk, click **Resize**, and add the desired amount.
2. **Scan for New Space (Inside VM):** The VM might not see the space immediately. Rescan the SCSI bus:

```
bash
```

```
echo 1 > /sys/class/block/sda/device/rescan
# Replace sda with your disk identifier found via lsblk
```

3. **Expand Partition (If needed):** Use `growpart` to expand the partition containing the LVM PV. For example, if LVM is on `/dev/sda2`:

```
bash
```

```
growpart /dev/sda 2
```

If `growpart` is not installed, use `apt install cloud-utils-growpart` or `yum install cloud-utils-growpart`.

4. **Resize Physical Volume (PV):** Tell LVM the partition is larger:

```
bash
```

```
pvresize /dev/sda2
```

5. **Extend Logical Volume (LV):** Extend the LVM to use all new free space:

```
bash
```

```
lvextend -l +100%FREE /dev/mapper/vgname-lvname
```

```
# Use 'lvs' to find your correct volume group/logical volume name
```

6. **Resize Filesystem:** Update the filesystem to use the new space.

- **For ext4:** `resize2fs /dev/mapper/vgname-lvname`

- **For XFS:** `xfs_growfs /`

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