

# KVM ????libvirt / virsh????????

□□ □□□□□□ □□□□ KVM □□□ libvirt / virsh□□□□□□ □□□□ Linux  
□□□□□ Ubuntu / CentOS / Rocky □□□□□□□□ □□□□□□□□□□ □

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1?? ???????????

```
egrep -c '(vmx|svm)' /proc/cpuinfo
```

```
“□ ≥1 □ VT-x / AMD-V
```

```
lsmod | grep kvm
```

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2?? libvirt ?????

```
systemctl status libvirtd  
systemctl start libvirtd  
systemctl enable libvirtd  
systemctl restart libvirtd
```

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???????Domain??? — ?????

1?? ???????????

```
virsh list # □□□□ VM  
virsh list --all # □□ VM
```

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## 2?? ?? / ?? / ??

```
virsh start vm1
virsh shutdown vm1 # □□□□
virsh reboot vm1
virsh destroy vm1 # □□□□□□□□
```

## 3?? ???????

```
virsh autostart vm1
virsh autostart --disable vm1
```

## 4?? ???????

```
virsh undefine vm1
```

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```
rm -f /var/lib/libvirt/images/vm1.qcow2
```

## ????????????????

## 1?? ???????

```
virsh dominfo vm1
```

## 2?? ?? XML ??????????

```
virsh dumpxml vm1
```

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```
virsh edit vm1
```

## 3?? ?? CPU / ??

```
virsh vcpuinfo vm1  
virsh vcpucount vm1  
virsh dommemstat vm1
```

## ??????????????

## 1?? ???????

```
virsh domblklist vm1
```

## 2?? ???????qcow2?

```
qemu-img resize vm1.qcow2 +50G
```

□ VM □□

```
virsh blockresize vm1 vda 100G
```

## 3?? ?????

```
qemu-img create -f qcow2 vm2.qcow2 50G
```

□□□□□□

```
qemu-img info vm1.qcow2
```

## ????????qcow2?

1?? ?????

```
virsh snapshot-create-as vm1 snap1 "before update"
```

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2?? ?????

```
virsh snapshot-list vm1
```

---

3?? ?????

```
virsh snapshot-revert vm1 snap1
```

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4?? ?????

```
virsh snapshot-delete vm1 snap1
```

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????????libvirt?

1?? ?????

```
virsh net-list --all
```

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2?? ?? / ?????

```
virsh net-start default  
virsh net-autostart default
```

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3?? ????????

```
virsh net-dumpxml default
```

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1?? ?????

```
virsh console vm1
```

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```
Ctrl + ]
```

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2?? VNC/SPICE ??

```
virsh vncdisplay vm1  
virsh domdisplay vm1
```

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1?? CPU ???

```
virsh setvcpus vm1 8 --live
```

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2?? ?????

```
virsh setmem vm1 16G --live
```

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```
virsh setmem vm1 16G --config
```

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# 1?? ?? qemu ??

```
ps -ef | grep qemu
```

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# 2?? ?? VM ??

```
/var/log/libvirt/qemu/vm1.log
```

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# 3?? ???????

```
virsh nodeinfo  
free -h  
lsblk
```

---

# ????????????

# 1?? ?????

```
for vm in $(virsh list --name); do  
    virsh shutdown $vm  
done
```

---

# 2?? ?????

```
virsh list --all | awk '/shut off/ {print $2}' | xargs -n1 virsh start
```

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# ??? virt-install ????????

```
virt-install \  
    --name vm1 \  
    --disk path=/dev/sdb
```

```
--memory 8192 \  
--vcpus 4 \  
--disk path=/var/lib/libvirt/images/vm1.qcow2,size=50 \  
--os-variant ubuntu20.04 \  
--network bridge=br0 \  
--graphics vnc \  
--cdrom ubuntu-20.04.iso
```

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- `virsh` 10 `virsh` `virsh`

```
virsh list  
virsh start / shutdown / destroy  
virsh dumpxml / edit  
virsh domblklist  
qemu-img info / resize  
virsh snapshot-*  
virsh console
```

- `virsh` `virsh`
  - `virsh` qcow2 + snapshot
  - VM XML `virsh`
  - `virsh` kill qemu
  - `virsh` br0

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- **KVM** `virsh` **Markdown / PDF** `virsh`
- **Hyper-V vs KVM** `virsh`
- `virsh` **KVM** `virsh` **NUMA / hugepage / IO** `virsh`
- **libvirt + Ansible** `virsh`

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