

???? + KVM + WebVirtCloud ????????8G????????

???????? + KVM + WebVirtCloud ??????????
GB ? 6.5 GB ?

4 ? 8

? ?????????????????? NUMA ??

? 1. ????????????

???????? 8 GB `libvirt` ??????????

?? ?????????

```
free -m
```

???????? 16 GB???? VM ?????????????????

? 2. NUMA ??????????

?? CPU ?? BIOS ?? NUMA???????????????? NUMA
????????????????

?? ????? NUMA ??

```
numactl --hardware
```

?? ????? NUMA ?????

```
virsh dumpxml vmname | grep -A5 numa
```

?? `<numatune>` ? `<vcpu placement='static'>` ??????????

? ?????????? Libvirt/QEMU?

□□□□□□□□

```
virsh dumpxml vmname | grep -A5 memory
```

□□□□□

```
<memory unit='KiB'>8388608</memory>
<currentMemory unit='KiB'>6815744</currentMemory>
```

□□ □□□□

- memory □□□□□□□□ 8 GB□
- currentMemory □□□□□□□□ 6.5 GB□

□□ □□□□

□□ XML □□□□□□□□

```
virsh setmem vmname 8G --config
virsh setmaxmem vmname 8G --config
```

□□□□□□□□

```
virsh destroy vmname
virsh start vmname
```

? ?????????? ?

□□□□□□

WebVirtCloud □□□□□□□□□□

□

- □□□□□□□□ cloud-init □ virt-sysprep □□□□□□□□□□
- □□□□ qcow2 □□□□□□□□ currentMemory □□□□□□□□□□□□□□

□□ □□□□□□□□□□

```
grep -A5 "<memory" /etc/libvirt/qemu/*.xml | grep -B1 currentMemory
```

□□□□□□□□

6815744 KiB □ ≈ 6.5 GB□□□□□□□□

XML□

XXXXXXXXXXXXXXXXXX
XXXXXXXXXXXXXXXXXX

XXXXXXXXXX

libvirt XXXX □

? ????????

□□	□□
XXXX	62 GiB XXXXXX
XXXX	<memory> □ <currentMemory> □ 8 GiB (8388608 KiB)
CPU □□	4 □
NUMA	XXXXXX
XXXXXXXX	6.5 GiB □□

□□ □□

XXXX libvirt XML XXXXXXXXXXXXX

6.5 GiB □ XXXXXXXXXXXXX

guest OS

XXXXXXXXXX □

? ??????????????????

XXXXXXXXXXXXXXXXXX

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

```
cat /proc/cmdline
```

XXXXXXXXXX

```
mem=6G
```

□□ grub XXXXXXXXXXXXX

□□ □□

□□ /etc/default/grub □□□□ mem= XXXXXXX

```
GRUB_CMDLINE_LINUX=""
```

XXXX grub XXXXXXX

```
grub2-mkconfig -o /boot/grub2/grub.cfg
reboot
```

2?? ???????????????

```
dmesg | grep -i memory
```

```
████████
```

```
Memory limited to 6G due to ACPI or BIOS setting
```

```
█
```

```
usable memory = 6815744k
```

```
████████████████
```

```
BIOS ██████████
```

? ?????????? BIOS?QEMU ???????

```
██████████████
```

```
<type arch='x86_64' machine='pc-q35-8.2'>hvm</type>
```

```
████████ V11██ RHEL8 ████████
Q35 █ + █ BIOS ███ SeaBIOS/OVMF██████████ bug█
██ guest █████ 6.x GB█
```

```
██ ██████████ i440fx ███
```

```
███
```

```
virsh edit rulr-1
```

```
███
```

```
<type arch='x86_64' machine='pc-q35-8.2'>hvm</type>
```

```
███
```


