

Root disk van een VM uitbreiden

maak de qcow2 file groter

Log in op de KVM host.

stop de betreffende VM: `virsh shutdown guest1`

maak de virtuele disk voor de betreffende vm groter, bijvoorbeeld 5Gb groter:

```
qemu-img resize /var/lib/libvirt/images/guest1.qcow2 +5G
```

vergroot de partitie

maakt vervolgens offline de partitie voor de Volumegroup waar de / lv in zit groter. vindt eerst de partitie naam:

```
virt-filesystems --long -h --all -a guest1.qcow2:
```

Name	Type	VFS	Label	MBR	Size	Parent
/dev/sda1	filesystem	xfs	-	-	500M	-
/dev/centos/root	filesystem	xfs	-	-	6,7G	-
/dev/centos/swap	filesystem	swap	-	-	820M	-
/dev/centos/root	lv	-	-	-	6,7G	/dev/centos
/dev/centos/swap	lv	-	-	-	820M	/dev/centos
/dev/centos	vg	-	-	-	7,5G	/dev/sda2
/dev/sda2	pv	-	-	-	7,5G	-
/dev/sda1	partition	-	-	83	500M	/dev/sda
/dev/sda2	partition	-	-	8e	7,5G	/dev/sda
/dev/sda	device	-	-	-	8,0G	-

in dit geval dus /dev/sda2

vergroot deze door:

```
cp guest1.qcow2 guest1-copy.qcow2
```

```
virt-resize --expand /dev/sda2 guest1-copy.qcow2 guest1.qcow2
```

Logical volumes vergroten op de VM

start nu de VM: `virsh start guest1` en log in op de VM.

vind de juiste PV: `pvscan`

PV /dev/vda2	VG centos	lvm2 [<12,51 GiB / 5,00 GiB free]
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```
Total: 1 [<12,51 GiB] / in use: 1 [<12,51 GiB] / in no VG: 0 [0 ]
```

breid de Physical Volume uit tot de ruimte op de schijf `pvresize /dev/vda2`

```
Physical volume "/dev/vda2" changed
1 physical volume(s) resized or updated / 0 physical volume(s) not resized
```

vind de juiste logical volume: `'df'`

<code>

Filesystem	1K-blocks	Used	Available	Use%	Mounted on
/dev/mapper/centos-root	7022592	4345000	2677592	62%	/
devtmpfs	3992760	0	3992760	0%	/dev
tmpfs	4004628	4	4004624	1%	/dev/shm
tmpfs	4004628	8824	3995804	1%	/run
tmpfs	4004628	0	4004628	0%	/sys/fs/cgroup
/dev/vda1	508588	261292	247296	52%	/boot
tmpfs	800928	0	800928	0%	/run/user/0

breid vervolgens het root logical volume uit: `lvextend -l +100%FREE /dev/centos/root`

```
Size of logical volume centos/root changed from <6,71 GiB (1717 extents)
to <11,71 GiB (2997 extents).
Logical volume centos/root successfully resized.
```

XFS filesystem uitbreiden

En breid het filesystem op die LV uit: `fs_growfs /dev/mapper/centos-root`

```
meta-data=/dev/mapper/centos-root isize=256    agcount=4, agsize=439552 blks
        =                               sectsz=512   attr=2, projid32bit=1
        =                               crc=0        finobt=0 spinodes=0
data      =                               bsize=4096   blocks=1758208, imaxpct=25
        =                               sunit=0      swidth=0 blks
naming    =version 2                     bsize=4096   ascii-ci=0 ftype=0
log        =internal                     bsize=4096   blocks=2560, version=2
        =                               sectsz=512   sunit=0 blks, lazy-count=1
realtime  =none                          extsz=4096    blocks=0, rtextents=0
data blocks changed from 1758208 to 3068928
```

Bronnen

<https://unix.stackexchange.com/questions/349586/resize-qcow2-root-partition#349608>

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