

How to expand /dev/mapper/cl-root (/dev/mapper/centos-root)

Step-by-step instructions

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---You MUST be root to perform the below steps---

1. Check the current disk status to ensure dev/mapper/cl-root (/dev/mapper/centos-root) is exactly 50G and /dev/mapper/cl-home (/dev/mapper/centos-home) is much larger in size.

df -h

Example:

```
[root@ptaserver /]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        7.8G   0  7.8G   0% /dev
tmpfs           7.8G   0  7.8G   0% /dev/shm
tmpfs           7.8G 802M  7.0G  11% /run
tmpfs           7.8G   0  7.8G   0% /sys/fs/cgroup
/dev/mapper/cl-root  50G   11G   40G  22% /
/dev/sda1       1014M 265M  750M  27% /boot
/dev/mapper/cl-home 441G   33M  441G   1% /home
tmpfs           1.6G   0  1.6G   0% /run/user/1001
tmpfs           1.6G   0  1.6G   0% /run/user/1007
tmpfs           1.6G   0  1.6G   0% /run/user/1003
tmpfs           1.6G   0  1.6G   0% /run/user/1005
tmpfs           1.6G   0  1.6G   0% /run/user/1006
tmpfs           1.6G   0  1.6G   0% /run/user/1008
tmpfs           1.6G   0  1.6G   0% /run/user/0
```

2. Stop PTA

service appmgr stop

3. Copy everything from the home directory out

cp -a /home /home2

4. Unmount the volume

umount /dev/mapper/cl-home (umount /dev/mapper/centos-home)

5. Delete the home logical volume

lvremove /dev/mapper/cl-home (lvremove /dev/mapper/centos-home)

Example:

```
[root@ptaserver /]# lvremove /dev/mapper/cl-home
Do you really want to remove active logical volume cl/home? [y/n]: y
Logical volume "home" successfully removed
```

6. Extend the root logical volume to take up the rest of the space

lvextend -l +100%FREE /dev/mapper/cl-root (lvextend -l +100%FREE /dev/mapper/centos-root)

Example:

```
[root@ptaserver /]# lvextend -l +100%FREE /dev/mapper/cl-root
Size of logical volume cl/root changed from 50.00 GiB (12800 extents) to 481.12 GiB (123167 ex
Logical volume cl/root successfully resized.
```

7. Extend the xfs partition

xfs_growfs /dev/mapper/cl-root (xfs_growfs /dev/mapper/centos-root)

Example:

```
[root@ptaserver /]# xfs_growfs /dev/mapper/cl-root
meta-data=/dev/mapper/cl-root    isize=512    agcount=4, agsize=3276800 blks
      =                       sectsz=512    attr=2, projid32bit=1
      =                       crc=1        finobt=0 spinodes=0
data      =                       bsize=4096   blocks=13107200, imaxpct=25
      =                       sunit=0      swidth=0 blks
naming    =version 2              bsize=4096   ascii-ci=0 ftype=1
log        =internal              bsize=4096   blocks=6400, version=2
      =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime  =none                   extsz=4096   blocks=0, rtextents=0
data blocks changed from 13107200 to 128744448
```

8. Check that /dev/mapper/cl-root (/dev/mapper/centos-root) has been increased in size and that /dev/mapper/cl-home (/dev/mapper/centos-home) has been removed

df -h

Example:

```
[root@ptaserver /]# df -h
Filesystem      Size  Used Avail Use% Mounted on
devtmpfs        7.8G   0    7.8G   0% /dev
tmpfs           7.8G   0    7.8G   0% /dev/shm
tmpfs           7.8G 810M   7.0G  11% /run
tmpfs           7.8G   0    7.8G   0% /sys/fs/cgroup
/dev/mapper/cl-root 492G  11G  481G   3% /
/dev/sda1       1014M 265M  750M  27% /boot
tmpfs           1.6G   0    1.6G   0% /run/user/1001
tmpfs           1.6G   0    1.6G   0% /run/user/0
tmpfs           1.6G   0    1.6G   0% /run/user/1007
tmpfs           1.6G   0    1.6G   0% /run/user/1003
tmpfs           1.6G   0    1.6G   0% /run/user/1005
tmpfs           1.6G   0    1.6G   0% /run/user/1006
tmpfs           1.6G   0    1.6G   0% /run/user/1008
```

9. Move the home directory data back and remove the temporary home2 directory

```
mv /home2/* /home/
rmdir /home2
```

10. Remove the /dev/mapper/cl-home (lvremove /dev/mapper/centos-home) entry from /etc/fstab

```
vi /etc/fstab
```

DELETE the line:

/dev/mapper/cl-home	/home	xf	defaults	0 0
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11. Start PTA

```
service appmgr start
```

12. Run Diagnostics to ensure PTA is functioning again:

```
RUN_DIAGNOSTICS
```