

lvm ?? ?? ? ?????? ?? ?? ??

xfsthe file system is mounted on the disk. The disk is mounted on the file system.

????

1. Check the disk usage of the /data directory.

```
$> df -Th /data
```

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/content_vg-content_lv	xfsthe file system is mounted on the disk.	3.6T	3.3T	346G	91%	/data

.. 3.6T the file system is mounted on the disk. 3.3T the file system is mounted on the disk. 91% the file system is mounted on the disk. ^

2. Check the disk usage of the /data directory.

```
$> fdisk -l
```

...

Disk /dev/sdc: 500 GiB, 536870912000 bytes, 1048576000 sectors

Units: sectors of 1 * 512 = 512 bytes

Sector size (logical/physical): 512 bytes / 512 bytes

I/O size (minimum/optimal): 512 bytes / 512 bytes

3. vg content_vg, lv content_lv the file system is mounted on the disk.

lvm ?? ??

1. sdc the file system is mounted on the disk. pv the file system is mounted on the disk. (the file system is mounted on the disk. lvm the file system is mounted on the disk. the file system is mounted on the disk. the file system is mounted on the disk.)

```
$> pvcreate /dev/sdc
```

Physical volume "/dev/sdc" successfully created.

2. pv the file system is mounted on the disk.

1. 物理卷

```
$> pvdisplay
--- Physical volume ---
PV Name                /dev/sdb
VG Name                content_vg
PV Size                <3.64 TiB / not usable <1.72 MiB
Allocatable            yes (but full)
PE Size                4.00 MiB
Total PE               953479
Free PE                0
Allocated PE           953479
PV UUID                QnstsS-xBJ0-Qv0l-RFan-SgaA-z3Fg-RJrZK8
```

2. 数据卷

```
$> pvdisplay
--- Physical volume ---
PV Name                /dev/sdb
VG Name                content_vg
PV Size                <3.64 TiB / not usable <1.72 MiB
Allocatable            yes (but full)
PE Size                4.00 MiB
Total PE               953479
Free PE                0
Allocated PE           953479
PV UUID                QnstsS-xBJ0-Qv0l-RFan-SgaA-z3Fg-RJrZK8

--- Physical volume ---
PV Name                /dev/sdc
VG Name                content_vg
PV Size                500.00 GiB / not usable 4.00 MiB
Allocatable            yes (but full)
PE Size                4.00 MiB
Total PE               127999
Free PE                0
Allocated PE           127999
PV UUID                Bsm9b5-DZTB-2iWr-6RH0-6uIy-canP-S0hMeC
```


3. Volume Group []

```
$> vgextend content_vg /dev/sdc  
Volume group "content_vg" successfully extended
```

1. [] []

```
$> vgdisplay  
--- Volume group ---  
VG Name                content_vg  
System ID  
Format                 lvm2  
Metadata Areas         1  
Metadata Sequence No   5  
VG Access              read/write  
VG Status              resizable  
MAX LV                 0  
Cur LV                1  
Open LV               1  
Max PV                 0  
Cur PV                1  
Act PV                1  
VG Size                <3.64 TiB  
PE Size                4.00 MiB  
Total PE              953479  
Alloc PE / Size        943718 / <3.60 TiB  
Free PE / Size         9761 / <38.13 GiB  
VG UUID                IiEZ8G-kbcL-l8MD-Ax6m-dWSZ-ZTCd-0vBWff
```

2. [] []

```
$> vgdisplay  
--- Volume group ---  
VG Name                content_vg  
System ID  
Format                 lvm2  
Metadata Areas         2  
Metadata Sequence No   6
```


VG Access	read/write
VG Status	resizable
MAX LV	0
Cur LV	1
Open LV	1
Max PV	0
Cur PV	2
Act PV	2
VG Size	<4.13 TiB
PE Size	4.00 MiB
Total PE	1081478
Alloc PE / Size	943718 / <3.60 TiB
Free PE / Size	137760 / 538.12 GiB
VG UUID	IiEZ8G-kbcL-l8MD-Ax6m-dWSZ-ZTCd-0vBWff

vg Size 3.64 500G 4.13T . lv
 Alloc PE 3.6T, Free PE 538.12 Gib
 .

4. LV

```
$> lvextend -l +100%FREE /dev/content_vg/content_lv
Size of logical volume content_vg/content_lv changed from <3.60 TiB (943718
extents) to <4.13 TiB (1081478 extents).
Logical volume content_vg/content_lv successfully resized.
```

100%FREE .

1.

```
$> lvdisplay
--- Logical volume ---
LV Path                /dev/content_vg/content_lv
LV Name                 content_lv
VG Name                 content_vg
LV UUID                 fhIWVB-0zNY-Icf0-qhu2-iNqV-hk73-0Nwl0N
LV Write Access         read/write
LV Creation host, time container.igoni.kr, 2023-01-08 17:53:28 +0900
LV Status                available
```



```

blks
    =                sectsz=512    attr=2, projid32bit=1
    =                crc=1         finobt=1, sparse=1, rmapbt=0
    =                reflink=1     bigtime=0 inobtcount=0
data    =            bsize=4096    blocks=966367232, imaxpct=5
    =                sunit=0       swidth=0 blks
naming  =version 2            bsize=4096    ascii-ci=0, ftype=1
log     =internal log        bsize=4096    blocks=471859, version=2
    =                sectsz=512    sunit=0 blks, lazy-count=1
realtime =none                extsz=4096    blocks=0, rtextents=0
data blocks changed from 966367232 to 1107433472

```

2. `df -Th /data` (3.6T -> 4.2T)

```

$> df -Th /data

```

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
/dev/mapper/content_vg-content_lv	xfs	4.2T	3.3T	881G	80%	/data

Reference

- <https://m.blog.naver.com/hanajava/220779211465>
- <https://devinegrace.tistory.com/40>
- https://access.redhat.com/documentation/ko-kr/red_hat_enterprise_linux/9/html/managing_file_systems/assembly_increasing-the-size-of-an-xfs-file-system_managing-file-systems
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