



链滴

# LVM 分区扩容

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原文链接: <https://ld246.com/article/1539071573646>

来源网站: [链滴](#)

许可协议: [署名-相同方式共享 4.0 国际 \(CC BY-SA 4.0\)](#)

# 一.当前分区

```
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'''
[root@Linkdood ~]# df -Ph
Filesystem                Size      Used Avail Use% Mounted on
/dev/mapper/vg_linkdood-LogVol00  48G  3.6G  42G   8% /
tmpfs                      16G  80K  16G   1% /dev/shm
/dev/sda1                   190M  41M  140M  23% /boot
/dev/mapper/vg_linkdood-LogVol01  92G  60M  87G   1% /data
'''
</font>
```

# 二.创建分区

## 1.新增磁盘

```
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'''
[root@Linkdood ~]# fdisk -l
...
Disk /dev/sdb: 1099.5 GB, 1099511627776 bytes
255 heads, 63 sectors/track, 133674 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 512 bytes
I/O size (minimum/optimal): 512 bytes / 512 bytes
Disk identifier: 0x00000000
'''
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<font size=4>****手动刷新磁盘****
'''
[root@Linkdood ~]# ls /sys/class/scsi_host/
host0 host1 host2

[root@Linkdood ~]# echo "- - -" > /sys/class/scsi_host/host0/scan
[root@Linkdood ~]# echo "- - -" > /sys/class/scsi_host/host1/scan
[root@Linkdood ~]# echo "- - -" > /sys/class/scsi_host/host2/scan
```

### ### 2.创建分区

```
<font size=4>
[root@Linkdood ~]# fdisk /dev/sdb

Command (m for help): 'n'
Command action
e   extended
p   primary partition (1-4)
p
```

Partition number (1-4): '1'

First cylinder (1-133674, default 1):

Using default value 1

Last cylinder, +cylinders or +size{K,M,G} (1-133674, default 133674):

Using default value 133674

Command (m for help): 'w'

The partition table has been altered!

Calling ioctl() to re-read partition table.

Syncing disks.

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### 3.查看新分区

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```
[root@Linkdood ~]# fdisk -l|grep /dev/sdb
```

```
Disk /dev/sdb: 1099.5 GB, 1099511627776 bytes
```

```
/dev/sdb1      1    133674 1073736373+  83  Linux
```

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## 三.LVM拓展

### 1.创建PV

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'创建PV'

```
[root@Linkdood ~]# pvcreate /dev/sdb1
```

```
Physical volume "/dev/sdb1" successfully created
```

'查询PV'

```
[root@Linkdood ~]# pvdisplay
```

```
--- Physical volume ---
```

```
PV Name      /dev/sda3
```

```
VG Name      vg_linkdood
```

```
PV Size      141.80 GiB / not usable 3.00 MiB
```

```
Allocatable  yes (but full)
```

```
PE Size      4.00 MiB
```

```
Total PE    36301
```

```
Free PE      0
```

```
Allocated PE 36301
```

```
PV UUID      m9B3Mg-96lt-sxLG-CM2v-NXFD-1iCL-pPEfAd
```

"/dev/sdb1" is a new physical volume of "1023.99 GiB"

--- NEW Physical volume ---

```
PV Name      /dev/sdb1
VG Name
PV Size      1023.99 GiB
Allocatable  NO
PE Size      0
Total PE     0
Free PE      0
Allocated PE 0
PV UUID      v7X8gF-PQAJ-aNxx-6csx-s0Vd-BYDY-mU3iCc
```

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### 2.扩展VG

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'查询VG'

```
[root@Linkdood ~]# vgdisplay
```

--- Volume group ---

```
VG Name      vg_linkdood
System ID
Format       lvm2
Metadata Areas 1
Metadata Sequence No 3
VG Access    read/write
VG Status    resizable
MAX LV      0
Cur LV      2
Open LV      2
Max PV      0
Cur PV      1
Act PV      1
VG Size      '141.80 GiB'
PE Size      4.00 MiB
Total PE     36301
Alloc PE / Size 36301 / 141.80 GiB
Free PE / Size 0 / 0
VG UUID      3XCgTR-3nX1-ZUbt-sM86-rop2-Rg2n-yAPtfy
```

'扩展VG'

```
[root@Linkdood ~]# vgextend vg_linkdood /dev/sdb1
Volume group "vg_linkdood" successfully extended
```

'查询VG'

```
[root@Linkdood ~]# vgdisplay
--- Volume group ---
VG Name          vg_linkdood
System ID
Format           lvm2
Metadata Areas   2
Metadata Sequence No 4
VG Access        read/write
VG Status        resizable
MAX LV           0
Cur LV          2
Open LV          2
Max PV           0
Cur PV          2
Act PV           2
VG Size          '1.14 TiB'
PE Size          4.00 MiB
Total PE         298443
Alloc PE / Size  36301 / 141.80 GiB
Free PE / Size   262142 / 1023.99 GiB
VG UUID          3XCgTR-3nX1-ZUbt-sM86-rop2-Rg2n-yAPtfy
```

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### 3.LV扩容

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'查询LV'

```
[root@Linkdood ~]# lvdisplay
--- Logical volume ---
LV Path          /dev/vg_linkdood/LogVol01
LV Name          LogVol01
VG Name          vg_linkdood
LV UUID          kZzmkt-rmzD-Ggl9-Xu1I-KlUs-unPc-pCRfBu
LV Write Access  read/write
```

LV Creation host, time Linkdood, 2017-12-12 10:04:26 +0800

LV Status available

**open 1**

LV Size '92.97 GiB'

Current LE 23801

Segments 1

Allocation inherit

Read ahead sectors auto

• currently set to 256

Block device 253:1

--- Logical volume ---

LV Path /dev/vg\_linkdood/LogVol00

LV Name LogVol00

VG Name vg\_linkdood

LV UUID PNu3LK-UwqQ-bb7Y-NM5m-iyBP-X16E-Xbpafb

LV Write Access read/write

LV Creation host, time Linkdood, 2017-12-12 10:04:40 +0800

LV Status available

**open 1**

LV Size 48.83 GiB

Current LE 12500

Segments 1

Allocation inherit

Read ahead sectors auto

• currently set to 256

Block device 253:0

'LV扩容'

```
[root@Linkdood ~]# lvextend -L +1023.99G /dev/mapper/vg_linkdood-LogVol01
```

Rounding size to boundary between physical extents: 1023.99 GiB.

Size of logical volume vg\_linkdood/LogVol01 changed from 92.97 GiB (23801 extents) to 1.09 TiB (285943 extents).

Logical volume LogVol01 successfully resized.

'LV刷新'

```
[root@Linkdood ~]# resize2fs /dev/mapper/vg_linkdood-LogVol01
resize2fs 1.41.12 (17-May-2010)
Filesystem at /dev/mapper/vg_linkdood-LogVol01 is mounted on /data; on-line resizing required
old desc_blocks = 6, new_desc_blocks = 70
Performing an on-line resize of /dev/mapper/vg_linkdood-LogVol01 to 292805632 (4k) blocks.
The filesystem on /dev/mapper/vg_linkdood-LogVol01 is now 292805632 blocks long.
```

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## 四.分区查看  
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```
[root@Linkdood ~]# df -Ph
Filesystem                Size  Used Avail Use% Mounted on
/dev/mapper/vg_linkdood-LogVol00  48G  3.6G  42G   8% /
tmpfs                      16G   80K  16G   1% /dev/shm
/dev/sda1                   190M  41M  140M  23% /boot
/dev/mapper/vg_linkdood-LogVol01  1.1T  71M  1.1T   1% /data
```

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