

# ????

## VG Import/Export

???? VG ??????????????

“ ?????????????? VG ? Exort????? VG Import?

- [How To Move LVM Volume Group To Another Machine In Linux](#)

## ?? PV Disk

????? LV ?????????? PV Disk (/dev/sdb1)

“ NOTE: ?? LV ??? VG ??????????

[https://access.redhat.com/site/documentation/en-US/Red\\_Hat\\_Enterprise\\_Linux/6/html-single/Logical\\_Volume\\_Manager\\_Administration/index.html#disk\\_remove\\_ex](https://access.redhat.com/site/documentation/en-US/Red_Hat_Enterprise_Linux/6/html-single/Logical_Volume_Manager_Administration/index.html#disk_remove_ex)

<http://www.tecmint.com/lvm-storage-migration/>

```
# pvs -o+pv_used
PV      VG  Fmt Attr PSize PFree Used
/dev/sda1 myvg lvm2 a- 17.15G 12.15G 5.00G
/dev/sdb1 myvg lvm2 a- 17.15G 12.15G 5.00G
/dev/sdc1 myvg lvm2 a- 17.15G 12.15G 5.00G
/dev/sdd1 myvg lvm2 a- 17.15G 2.15G 15.00G
```

```
# pvremove /dev/sdb1
/dev/sdb1: Moved: 2.0%
...
/dev/sdb1: Moved: 79.2%
```

...

/dev/sdb1: Moved: 100.0%

```
# pvs -o+pv_used
```

PV	VG	Fmt	Attr	PSize	PFree	Used
/dev/sda1	myvg	lvm2	a-	17.15G	7.15G	10.00G
/dev/sdb1	myvg	lvm2	a-	17.15G	17.15G	0
/dev/sdc1	myvg	lvm2	a-	17.15G	12.15G	5.00G
/dev/sdd1	myvg	lvm2	a-	17.15G	2.15G	15.00G

```
# vgreduce myvg /dev/sdb1
```

Removed "/dev/sdb1" from volume group "myvg"

```
[root@tng3-1 ~]# pvs
```

PV	VG	Fmt	Attr	PSize	PFree
/dev/sda1	myvg	lvm2	a-	17.15G	7.15G
/dev/sdb1		lvm2	--	17.15G	17.15G
/dev/sdc1	myvg	lvm2	a-	17.15G	12.15G
/dev/sdd1	myvg	lvm2	a-	17.15G	2.15G

## ?? PV Disk

???? PV Disk (/dev/sdb1) ?????????????? PV Disk (/dev/sdd1)

?????? Mirror ?? \*??\*

????:

- <https://www.thegeekdiary.com/centos-rhel-7-how-to-create-and-remove-the-lvm-mirrors-using-lvconvert/>
- <https://linux.m2osw.com/creating-drive-mirror-lvm-including-exact-partition-cloning>

??:

- VG: vg\_data
- LV: db\_worktmp, lv\_mydev, lv\_worktmp
- PV: from /dev/sdb1 to /dev/sdc

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

```
#> lvs -a -o name,copy_percent,devices,lv_size vg_data
```

LV	Cpy%Sync Devices	LSize
db_worktmp	/dev/sdb1(0)	20.00g
lv_mydev	/dev/sdb1(5121)	60.00g
lv_mydev	/dev/sdb1(10242)	60.00g
lv_worktmp	/dev/sdb1(20482)	500.00m

## 2. ?????????? VG ?

```
#> vgextend vg_data /dev/sdc
```

## 3. ????? LV ?? Mirror

```
#> lvconvert -m1 vg_data/db_worktmp
#> lvconvert -m1 vg_data/lv_mydev
#> lvconvert -m1 vg_data/lv_worktmp
```

☐☐ Mirror ☐☐☐

```
#> lvs -a -o name,copy_percent,devices,lv_size vg_data
```

## 4. ????? LV ?? Mirror??????????

```
#> lvconvert -m0 vg_data/db_worktmp /dev/sdb1
#> lvconvert -m0 vg_data/lv_mydev /dev/sdb1
#> lvconvert -m0 vg_data/lv_worktmp /dev/sdb1
```

## 5. ? VG ??? PV /dev/sdb1, ????? PV

```
#> vgreduce vg_data /dev/sdb1
#> pvremove /dev/sdb1
```

## ?????? PV ???? pvmove

## NOTE: PV ????? VG ?????

```
# pvs -o+pv_used
PV      VG  Fmt Attr PSize PFree Used
/dev/sda1 myvg lvm2 a- 17.15G 7.15G 10.00G
/dev/sdb1 myvg lvm2 a- 17.15G 15.15G 2.00G
/dev/sdc1 myvg lvm2 a- 17.15G 15.15G 2.00G
```

```
# pvcreate /dev/sdd1  
Physical volume "/dev/sdd1" successfully created
```

```
# vgextend myvg /dev/sdd1  
Volume group "myvg" successfully extended  
[root@tng3-1]# pvs -o+pv_used  
PV      VG  Fmt Attr PSize PFree Used  
/dev/sda1  myvg lvm2 a- 17.15G 7.15G 10.00G  
/dev/sdb1  myvg lvm2 a- 17.15G 15.15G 2.00G  
/dev/sdc1  myvg lvm2 a- 17.15G 15.15G 2.00G  
/dev/sdd1  myvg lvm2 a- 17.15G 17.15G 0
```

```
# pvmove /dev/sdb1 /dev/sdd1  
/dev/sdb1: Moved: 10.0%  
...  
/dev/sdb1: Moved: 79.7%  
...  
/dev/sdb1: Moved: 100.0%  
  
[root@tng3-1]# pvs -o+pv_used  
PV      VG  Fmt Attr PSize PFree Used  
/dev/sda1  myvg lvm2 a- 17.15G 7.15G 10.00G  
/dev/sdb1  myvg lvm2 a- 17.15G 17.15G 0  
/dev/sdc1  myvg lvm2 a- 17.15G 15.15G 2.00G  
/dev/sdd1  myvg lvm2 a- 17.15G 15.15G 2.00G
```

```
# vgreduce myvg /dev/sdb1  
Removed "/dev/sdb1" from volume group "myvg"
```