

????????????

???OpenPOWER Linux ?????????????? PPC PReP Boot ????? Software Raid
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????????????????????????????????

“ TIP: PPC PReP Boot ??? IBM Power ?????????????? x86 ??? MBR?

???????https://access.redhat.com/discussions/2158911

?????

????????????????????????????

```
# fdisk -l /dev/sda
```

Disk /dev/sda: 960.2 GB, 960197124096 bytes, 1875385008 sectors

Units = sectors of 1 * 512 = 512 bytes

Sector size (logical/physical): 512 bytes / 4096 bytes

I/O size (minimum/optimal): 4096 bytes / 4096 bytes

Disk label type: dos

Disk identifier: 0x000e7231

| Device | Boot | Start | End | Blocks | Id | System |
|-----------|------|---------|------------|-----------|----|-----------------------|
| /dev/sda1 | * | 2048 | 22527 | 10240 | 41 | PPC PReP Boot |
| /dev/sda2 | | 22528 | 2121727 | 1049600 | fd | Linux raid autodetect |
| /dev/sda3 | | 2121728 | 1875384319 | 936631296 | fd | Linux raid autodetect |

“ sda1 Power ??? (????????????)

sda2 Linux ??? /boot (?? Raid 1)

sda3 LVM ?? (?? Raid6)

?? Power ?????????? /sdb1

```
dd if=/dev/sda1 of=/dev/sdb1 bs=512 conv=noerror,sync
```

```
/dev/sdb ????
```

```
# fdisk -l /dev/sdb

Disk /dev/sdb: 960.2 GB, 960197124096 bytes, 1875385008 sectors
Units = sectors of 1 * 512 = 512 bytes
Sector size (logical/physical): 512 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Disk label type: dos
Disk identifier: 0x0003819f


   Device Boot      Start         End      Blocks   Id  System
/dev/sdb1          2048        22527        10240    41  PPC PReP Boot
/dev/sdb2          22528       2121727       1049600    fd  Linux raid autodetect
/dev/sdb3          2121728     1875384319     936631296    fd  Linux raid autodetect
```

Disk identifier: 0x0003819f

| Device | Boot | Start | End | Blocks | Id | System |
|-----------|------|---------|------------|-----------|----|-----------------------|
| /dev/sdb1 | | 2048 | 22527 | 10240 | 41 | PPC PreP Boot |
| /dev/sdb2 | | 22528 | 2121727 | 1049600 | fd | Linux raid autodetect |
| /dev/sdb3 | | 2121728 | 1875384319 | 936631296 | fd | Linux raid autodetect |

“ sdb ? sda ?????????????????????????????????

????????

```
????? sda ? sdb ?????????????????????? raid ???
```

? /dev/sda ??

```
fdisk /dev/sda
```



```
n > p > 1(default) > 2048(default) > 22527
n > p > 2 (default) > 22528 (default) > 2121727
n > p > 3 (default) > 2121728 (default) > 1875385007 (default)
```

$n > p > 3$ (default) > 2121728 (default) > 1875385007 (default)

|||||

t > 1 > 41 PPC PReP Boot

t > 2 > fd Linux raid

t > 3 > fd Linux raid

||||#1 |||||

a > 1

|||||

p

|||||

w

??????? sdb ? sda

```
dd if=/dev/sdb1 of=/dev/sda1 bs=512 conv=noerror,sync
```

?? Raid

```
# cat /proc/mdstat
```

```
Personalities : [raid1] [raid6] [raid5] [raid4]
```

```
md126 : active raid1 sdb2[1]
```

```
1049536 blocks super 1.0 [2/1] [_U]
```

```
bitmap: 1/1 pages [64KB], 65536KB chunk
```

```
md127 : active raid6 sdb3[1] sdd1[3] sde1[4] sdc[5]
```

```
2809500672 blocks super 1.2 level 6, 512k chunk, algorithm 2 [5/4] [_UUUU]
```

```
bitmap: 1/1 pages [64KB], 65536KB chunk
```

```
unused devices: <none>
```

```
# mdadm --detail /dev/md126
```

```
/dev/md126:
```

```
Version : 1.0
```

```
Creation Time : Mon Feb 20 23:30:01 2017
```

```
Raid Level : raid1
```

```
Array Size : 1049536 (1024.94 MiB 1074.72 MB)
```

```
Used Dev Size : 1049536 (1024.94 MiB 1074.72 MB)
```

```
Raid Devices : 2
```

Total Devices : 1

Persistence : Superblock is persistent

Intent Bitmap : Internal

Update Time : Fri Feb 24 19:55:16 2017

State : clean, degraded

Active Devices : 1

Working Devices : 1

Failed Devices : 0

Spare Devices : 0

Name : localhost.localdomain:boot

UUID : 1b78d1ea:f5380532:4fe25553:20ef8396

Events : 44

| Number | Major | Minor | RaidDevice | State |
|--------|-------|-------|------------|-----------------------|
| - | 0 | 0 | 0 | removed |
| 1 | 8 | 18 | 1 | active sync /dev/sdb2 |

mdadm --detail /dev/md127

/dev/md127:

Version : 1.2

Creation Time : Mon Feb 20 23:30:10 2017

Raid Level : raid6

Array Size : 2809500672 (2679.35 GiB 2876.93 GB)

Used Dev Size : 936500224 (893.12 GiB 958.98 GB)

Raid Devices : 5

Total Devices : 4

Persistence : Superblock is persistent

Intent Bitmap : Internal

Update Time : Fri Feb 24 14:42:10 2017

State : clean, degraded

Active Devices : 4

Working Devices : 4

Failed Devices : 0

Spare Devices : 0

Layout : left-symmetric

Chunk Size : 512K

Name : localhost.localdomain:pv00

UUID : f7a62cb2:b269daa9:29f8025f:6fcef40f

Events : 4769

| Number | Major | Minor | RaidDevice | State |
|--------|-------|-------|------------|-----------------------|
| - | 0 | 0 | 0 | removed |
| 1 | 8 | 19 | 1 | active sync /dev/sdb3 |
| 5 | 8 | 32 | 2 | active sync /dev/sdc |
| 3 | 8 | 49 | 3 | active sync /dev/sdd1 |
| 4 | 8 | 65 | 4 | active sync /dev/sde1 |

?? Raid

```
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Disk label type: dos

Disk identifier: 0x000e7231

| Device | Boot | Start | End | Blocks | Id | System |
|-----------|------|---------|------------|-----------|----|-----------------------|
| /dev/sda1 | * | 2048 | 22527 | 10240 | 41 | PPC PReP Boot |
| /dev/sda2 | | 22528 | 2121727 | 1049600 | fd | Linux raid autodetect |
| /dev/sda3 | | 2121728 | 1875385007 | 936631640 | fd | Linux raid autodetect |

```
# mdadm /dev/md126 --add /dev/sda2
```

```
# mdadm /dev/md127 --add /dev/sda3
```

Revision #1

Created 9 March 2022 02:41:15 by Admin

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