

# RE: Increasing Space in Software Raid

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*Source:* <http://linux.derkeiler.com/Mailing-Lists/RedHat/2008-01/msg00274.html>

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- *From:* "Broekman, Maarten" <[Maarten.Broekman@xxxxxxx](mailto:Maarten.Broekman@xxxxxxx)>
  - *Date:* Wed, 30 Jan 2008 11:10:31 -0500
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If the disks are hotswap capable, you won't need a restart. If the disks are not hotswap capable, then you'll need to shut down the system to replace them.

The best thing would be to recreate the partitions exactly the same on the new disks first to make sure everything is still working fine. Then increase the size of the partitions through fdisk and expand the filesystem with resize2fs.

Maarten Broekman

-----Original Message-----

From: [redhat-list-bounces@xxxxxxxxxxx](mailto:redhat-list-bounces@xxxxxxxxxxx)  
[<mailto:redhat-list-bounces@xxxxxxxxxxx>] On Behalf Of John J. Culkin  
Sent: Wednesday, January 30, 2008 10:44 AM  
To: General Red Hat Linux discussion list  
Subject: Re: Increasing Space in Software Raid

Thanks for the replys

Isn't it a little more complicated then that. I would have to make partitions on the new device and then I would have to expand then later

Let me see if I can get a little Betty Crocker recipe here so that we are all on the same page

```
#Fail on device
mdadm --fail /dev/sda1
#Remove the failed drive and then replace it with a larger disk
# mount the disk and format it (would I need a restart in there?)
# Here is where it gets a little tricky for me
# I think I need to make matching partitions on the larger device so
that I can bring it into the RAIDs (one for /boot, one for / root)
#once that is rebuild I will break the raid again so that I can remove
the remaining smaller disk
#I will then insert the new disk and mout and formate it
# before I bring the new disk into the raid I will want to grow the size
```

of the / root raid – this will also mean that I will have to grow its

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partition – any tips on that?

Am I missing anything?

-- John C.

Broekman, Maarten wrote:

The easiest way would be to break the mirror. Replace the non-live device with the new drive. Make a new metadvice with the new device. Copy the data. Remove the last old device and put in the second new device. Then re-mirror.

To make life easier you might want to use LVM also rather than raw metadvicees on the new devices.

Maarten Broekman

-----Original Message-----

From: redhat-list-bounces@xxxxxxxxxxx  
[mailto:redhat-list-bounces@xxxxxxxxxxx] On Behalf Of  
culkinj3@xxxxxxxxxxx  
Sent: Tuesday, January 29, 2008 9:38 PM  
To: redhat-list@xxxxxxxxxxx  
Subject: Increasing Space in Software Raid

Hello

I have a server running RHEL 4 and it has a software Raid (1) of 2 250 gb Sata disks. I want to upgrade this to two 750 gb disks in a Raid 1 configuration. There is not another SATA slot available.

Here is some more information

```
# df -ah
/dev/md1 229G 196G 21G 91% /
none 0 0 0 - /proc
none 0 0 0 - /sys
none 0 0 0 - /dev/pts
usbfs 0 0 0 - /proc/bus/usb
/dev/md0 99M 11M 83M 12% /boot
none 505M 0 505M 0% /dev/shm
none 0 0 0 - /proc/sys/fs/binfmt_misc
automount(pid2042) 0 0 0 - /var/autofs/bacula
/dev/sdc1 451G 340G 88G 80% /mnt/usb
#
cat /proc/mdstat
Personalities : [raid1]
md1 : active raid1 sda3[0]
242983040 blocks [2/1] [U_]
```

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```
md0 : active raid1 sda1[0]
104320 blocks [2/1] [U_]
```

unused devices: <none>

```
# cat /etc/fstab
/dev/md1 / ext3 defaults
1 1
/dev/md0 /boot ext3 defaults
1 2
none /dev/pts devpts gid=5,mode=620
0 0
none /dev/shm tmpfs defaults
0 0
none /proc proc defaults
0 0
none /sys sysfs defaults
0 0
LABEL=SWAP-sdb2 swap swap defaults
0 0
LABEL=SWAP-sda2 swap swap defaults
0 0
/dev/sdc1 /mnt/usb ext3 defaults
0 0
```

Any suggestions/tips?

-- John C.

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