

Re: Problem booting RAID1/mdadm system when one disk is unplugged

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Source: <http://linux.derkeiler.com/Mailing-Lists/Debian/2006-09/msg00124.html>

- *From:* James Brown <jbrown@xxxxxxxxxx>
 - *Date:* Fri, 01 Sep 2006 23:20:48 +0200
-

Justin Piszcz wrote:

On Fri, 1 Sep 2006, James Brown wrote:

All,

I have already posted this question to gmane.linux.raid, but would really appreciate some help from a Debian perspective please...

My System has 2x120GB IDE disks with the an up-to-date Sarge install, running kernel 2.6.8-3 and configured for mirroring.

When I tested booting my system, I found:

- a) A kernel panic unless both disks are plugged in.
- b) One disk removes from the array each reboot.

The relevant logs are on this thread:

<http://article.gmane.org/gmane.linux.raid/13033/match=newbie+kernel+panic+raid1>

I was advised this was a problem with my `initrd` because it didn't contain a `mdadm.conf` file and presumably that I should make a new one.

Unfortunately, some friends of mine do not agree that my `initrd` is the problem because they point out that I can still boot when two disks are present. What do people here think?

Thanks in advance

James.

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1) You do not need an initrd at all.

I'm actually a newbie and using GRUB as it was installed by default.

Will deleting the /boot/initrd.img-2.6.8-3-386 file and initrd instruction within menu.lst be sufficient?

2) I would make sure you are booting from the /dev/md* partition.

I *think* I am booting from the /dev/md0 partition:

```
# cat /boot/grub/menu.lst
[...]
# groot=(hd0,5)
[...]
title Debian GNU/Linux, kernel 2.6.8-3-386
root (hd0,5)
kernel /boot/vmlinuz-2.6.8-3-386 root=/dev/md0 ro
initrd /boot/initrd.img-2.6.8-3-386
savedefault
boot
[...]
```

I understand this means the system will load the BootLoader from the first disk BIOS presents, and partition number 6 on that disk (in my case, hda6 or hdc6). It will then try to boot the kernel from /dev/md0, which it should manage:

```
# cat /etc/fstab
proc /proc proc defaults 0 0
/dev/md0 / ext3 defaults,errors=remount-ro 0 1
/dev/md1 /var/mail ext3 defaults 0 2
/dev/hda5 none swap sw 0 0
/dev/hdc5 none swap sw 0 0
/dev/hdd /media/cdrom0 iso9660 ro,user,noauto 0 0
```

I don't see a problem here, but please correct me if I've said something wrong.

3) You must have a /boot on a /dev/md partition.

From looking at the above, /boot would fall under /dev/md0 (I think)?

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4) You need LILO installed with the special raid option in the config.

Maybe I should ditch GRUB and learn/install LILO.

5) I have done this and tested by pulling each HDD out and it working successfully with Debian + 2x74GB raptors.

Justin.

Thanks very much for your time.

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