Software RAID (MD)

Desired configuration of the disks

hdd	partition	raid1	lvm	mount point
sda	sda1	md0	-	/
sdb	sdb1	md0		
sda	sda2	-	-	swap
sdb	sdb2	-		swap
sdc	sdc1	md1	vg1	/home, /srv,
sdd	sdd1	md1	vg1	/media
sde	sde1	md2	vg1	
sdf	sdf1	md2	vg1	
sdg	sdg1	md3	vg2	/backup
sdh	sdh1	md3	vg2	/backup

see also Hardware configuration

Replace a failed RAID disk

Replace the disk, then copy the partition information from the good disk, randomize the UUID, and re-read the partition information into the system. First, install gdisk from the Debian Universe repositories.

```
apt-get install gdisk
sgdisk -R=/dev/sdb /dev/sda
sgdisk -G /dev/sdb
partprobe
```

Taken from How can I quickly copy a GPT partition scheme from one hard drive to another?

Other resources on mdadm and How do I rename an mdadm raid array?:

- https://raid.wiki.kernel.org/index.php/Recovering_a_failed_software_RAID
- http://en.wikipedia.org/wiki/Mdadm#Creating_an_array
- https://access.redhat.com/site/documentation/en-US/Red_Hat_Enterprise_Linux/4/html/Cluster_Logical_Volume_Manager/VG_activate.html
- https://raid.wiki.kernel.org/index.php/RAID_Recovery
- http://www.cyberciti.biz/faq/linux-creating-software-raid-one-arrays/
- http://www.cyberciti.biz/faq/linux-server-rename-an-mdadm-raid-array/
- SMART tests with smartctl
- Smartmontools and fixing Unreadable Disk Sectors
- What SMART Stats Tell Us About Hard Drives

Setup configuration:

```
mdadm -Es >> /etc/mdadm/mdadm.conf
```

Install Base

1. Install Ubuntu Hardy (8.04) Alternate Install: F6-F6-Expert Mode
2. Install Raid1 with MD package activated and assign mount points

Check wether all volumes get mounted during system boot

to check wether root and swap are mounted, enter:

```
mount
free -m -t
```

to check mismatching uuid's, enter:

```
ls -la /dev/disk/by-uuid
cat /etc/fstab
```

to fix, do:

```
vim /etc/fstab
```

replace the uuid's found in fstab with the ones found in /dev/disk. Make sure you copy the correct uuid (md0, md1) to the respective entry in fstab.

From:
https://wiki.condrau.com/ - **Bernard's Wiki**

Permanent link:
https://wiki.condrau.com/deb720:mdadm

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