Install raid1 and lvm for Kubuntu Hardware configuration

MB : ASUS M2N32 Workstation Professional

CPU: Athlon 64 X2 5600+

HD : 2xWD 74GB Raptor, 2xSamsung 500GB, 1xSamsung 400GB

RAM: 4 GB DDR2-6400

Usage: Server

Brief problem description

I started off installing Kubuntu Feisty 7.04. Within the partitioner, I could not set up lvm. I could not get past the error message “Error informing the kernel about modifications to /dev/md2p1 –Invalid argument”, no matter what I did. I even zeroed all partition tables with dd, but whenever I entered LVM config the partitioner recognized md0, md1, md2 and the usage as lvm. I’m not quite sure how this is possible, I even started doubting my new hardware.

After several hours I decided to go back to Kubuntu 6.10, with which I still could not install lvm, but I could properly install the 2 multidisk (raid1) configurations (md0: /, md1: swap, md2: /srv). md2 = /srv was a necessary intermediate step, because lvm did not configure through on Edgy either, so I formatted it with ext3. Remarks for the walkthrough below

“>” means “and then”, next menu item or next step

“|” means option, do first or second (first | second)

all commands below as super user. enter sudo -s

Desired configuration of the disks hdd partition raid1 lvm mount point sda sda1 md0 - / sdb sdb1 md0 sda sda2 md1 - swap sdb sdb2 md1 sdc sdc1 md2 vg1, lv1, lv2 /home, /srv sdd sdd1 md2 sde sde1 - vg2, lv3 /backup Install Base

1. Install Kubuntu Edgy (6.10) Alternate Install: F6-F6-Expert Mode
2. Install Raid1 with MD package activated
3. DO NOT install LVM during initial setup
4. Boot into KDE from HD

Note: if MD oder LVM already activated before and need clean: 2nd shell (Alt-F2) > mdadm - -manage

- -stop md0 > mdadm - -manage - -remove md0 before writing to disk in partitioner

Install LVM

```
 1.
    lvm > pvcreate /dev/sde1 > pvcreate /dev/md2
 2.
    lvm > vgcreate vg_backup /dev/sde1 > vgcreate vg_data /dev/md2
 3.
    lvm > vgdisplay vg_backup to check ### of free extents (following steps
same for vg_data, but 2 logical volumes)
 4.
    lvm > lvcreate -l### vg_backup (do not use -LxxGB, use size with -l###
which is number of extents)
 5.
    lvm > lvrename vg_backup lvol0 lv_backup
 6.
    lvm > vgcfgbackup to backup volume group configurations
 7.
    lvm > exit
 8.
    umount /home > umount /srv
 9.
    mkfs -t ext3 /dev/vg_backup/lv_backup > mkfs -t ext3
/dev/vg_data/lv_home > mkfs -t ext3 /dev/vg_data/lv_srv
10.
    mkdir /backup
11.
    mount /dev/vg_backup/lv_backup /backup > mount /dev/vg_data/lv_home
/home > mount /dev/vg_data/lv_srv /srv
```

As I use this machine as a server I did not consider to upgrade Edgy to Feisty, but I would expect that this can be done without problems. I'm not sure this is the best way or the fastest, but it worked for me.

Done! Everything works now!

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