LVM (Linux Volume Manager) is installed on the Free/Unallocated space

LVM allows for great flexibility when allocating Hard disk partitions. The reason partitions are used is because: of seperate xen host servers, and for providing for a more stable server: if /var/tmp is filled up - the server can still function, as other partitions are unaffected.

- Check if there is partitions available.

```
cfdisk
```

- If a partition is made via cfdisk - a reboot maybe required for udev to pick it up.
- The commands listed below should be self-explainatory.

```
apt-get install lvm2
pvcreate /dev/sda3
pvcreate /dev/sdb2
vgcreate main-vol /dev/sda3 /dev/sdb2
vgscan

lvcreate -n zachome --size 50g main-vol
lvcreate -n zachomeswp --size 1g main-vol

mkfs.ext3 /dev/main-vol/zachome
mkswap /dev/main-vol/zachomeswp

resize2fs /dev/main-vol/zachome 40000
lvreduce -L-10g /dev/main-vol/zachome   #subtract 10Gb from current size!

pvscan

lvscan
```

Increase the Size of an LVM Partition

```
//umount the partition or poweroff the domU server.
//the commands below should be available on the dom0 or main server.
lvextend -L+10G /dev/main-vol2/twister   //extend the LinuxVolume. Add 10 gigabytes to the present s
e2fsck -f /dev/main-vol2/twister         //Run a (forced) check on the filesystem
resize2fs /dev/main-vol2/twister       //resize the filesystem
```

Increase sise of an LVM Swap Partition

```
swapoff -v /dev/VolGroup00/LogVol01
lvm lvresize /dev/VolGroup00/LogVol01 -L +256M
mkswap /dev/VolGroup00/LogVol01
swapon /dev/VolGroup00/LogVol01
```

Main One = http://www.debian-administration.org/articles/410

http://www.netadmintools.com/art367.html

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