

Linux Raid 1 Setup

Create RAID1

1. Open a terminal and check device mounting paths:
 - a. `sudo fdisk -l`
2. Make a new partition table. MBR only supports up to 2TB space. Use GPT for >2TB storage
 - a. `sudo parted /dev/sdx mklabel gpt`
 - b. Repeat for the second drive. Replace *sdx* with your disk location
3. Use fdisk to create a new partition in each drive:
 - a. `sudo fdisk /dev/sdx`
 - i. Create a new partition: n
 - ii. Select partition position: 1
 - iii. Select default first sector: <Enter>
 - iv. Select default last sector: <Enter>
 - v. Change partition type: t
 - vi. Set to Linux Raid: 28
 - vii. View updated settings: p
 - viii. Write: w
 - b. Repeat with second drive. Replace *sdx* with your disk location
4. Install mdadm
 - a. `sudo apt install mdadm`
5. Create Raid 1
 - a. `sudo mdadm --create /dev/md0 --level=mirror --raid-devices=2 /dev/sdx1 /dev/sdx1`
 - b. Replace *sdx* with your disk location
6. Format to ext4
 - a. `sudo mkfs.ext4 /dev/md0`
7. Create a mount point for the raid and mount it
 - a. `sudo mkdir /mnt/raid1`
 - b. `sudo mount /dev/md0 /mnt/raid1`
8. Save configurations
 - a. `sudo mdadm --detail --scan --verbose | sudo tee -a /etc/mdadm/mdadm.conf`
9. All set. Data stored in `/mnt/raid1` will be mirrored on both drives

Delete RAID1 configurations

1. View raid devices
 - a. `cat /proc/mdstat`
2. Stop mdadm raid device
 - a. `sudo mdadm -stop /dev/md0`
 - i. Replace *md0* with your raid device
3. Remove superblocks

- a. `sudo mdadm -zero-superblock /dev/sdx1 /dev/sdx1`
 - i. Replace *sdx* with your superblock
- 4. Verify raid device was removed
 - a. `cat /proc/mdstat`