**RAID 0**

**Required Machine**

**Node : 4GB RAM, 4 core, 20GB + 20GB + 20GB HDD, NAT**

**# lsblk**

**# yum install mdadm -y**

**# mdadm --create --verbose /dev/md0 --level=0 --raid-devices=2 /dev/sdb /dev/sdc**

**# cat /proc/mdstat**

**# mdadm --examine /dev/sdb**

**# mdadm --examine /dev/sdc**

**# mdadm --detail /dev/md0**

**# fdisk /dev/md0**

**# mkfs.ext4 /dev/md0**

**# mkdir /mnt/raid0**

**# mount /dev/md0 /mnt/raid0**

**#lsblk**

**RAID 1**

**Required Machine**

**Node : 4GB RAM, 4 core, 20GB + 20GB + 20GB HDD, NAT**

**#lsblk**

**# yum install mdadm -y**

**# mdadm --create --verbose /dev/md1 --level=1 --raid-devices=2 /dev/sdb /dev/sdc**

**# mdadm --examine /dev/sdb**

**# mdadm --examine /dev/sdc**

**# mdadm --detail /dev/md1**

**# mkfs.ext4 /dev/md1**

**# mkdir /mnt/raid1**

**# mount /dev/md1 /mnt/raid1**

**# blkid /dev/md1**

Copy UUID only

**# vi /etc/fstab**

UUID="0d064760-9a32-46e1-b69d-f4be9280fccb" /mnt/raid1 ext4 defaults 0 0

**# mdadm --detail /dev/md1**

**# cd /mnt/raid1/**

**# echo test>raid1.txt**

**RAID 5**

**Required Machine**

**Node : 4GB RAM, 4 core,20GB + 20 GB 20GB + 20GB + 20GB HDD, NAT**

**#lsblk**

**#** **yum install mdadm**

**#** **mdadm --create --verbose /dev/md0 --level=5 --raid-devices=3 /dev/sdb /dev/sdc /dev/sdd --spare-d**

**evices=1 /dev/sde**

**# fdisk /dev/md0**

**#mkfs.ext4 /dev/md0**

**#mkdir /mnt/raid5**

**#mount /dev/md0 /mnt/raid5/**

**#cd /mnt/raid5**

**#dd if=/dev/zero of=1000m.file bs=1024 count=1800023**

**#mdadm --detail /dev/md0**

**#mdadm --fail /dev/md0 /dev/sdd**

**mdadm --fail /dev/md0 /dev/sdd**

disk /dev/sde will take place of /dev/sdd and /dev/sdd will get removed

**RAID 10**

**Required Machine**

**Node : 4GB RAM, 4 core,20GB + 20 GB 20GB + 20GB + 20GB HDD, NAT**

**# lsblk**

**# yum install mdadm -y**

**# mdadm --create --verbose /dev/md10 --level=10 --raid-devices=4 /dev/sdb /dev/sdc /dev/sdd /dev/sde**

**# mkfs.ext4 /dev/md10**

**# mkdir /mnt/raid10/**

**# mount /dev/md10 /mnt/raid10/**

**# df -Th**

**# blkid /dev/md10**

Copy UUID only

**# vi /etc/fstab**

UUID="36aacc70-dd7b-463a-9fed-f2a5e0d9dd07"/mnt/raid10 ext4 defaults 0 0

**# mount -a**

**# lsblk**

**# mdadm --detail /dev/md10**

**# mdadm --fail /dev/md10 /dev/sde**

**# mdadm --detail /dev/md10**

**# mdadm --remove /dev/md10 /dev/sde**

**# mdadm --detail /dev/md10**

**# mdadm --add /dev/md10 /dev/sde**

**# mdadm --detail /dev/md10**