­­­­Red Hat Certified System Administrator

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| Steps to work with LVM (Logical Volume Manager): |
| 1. Create new logical volume |
| 1. First create partition using fdisk    1. fdisk /dev/sd?    2. n (for new partition)    3. p(primary partition)    4. 1(partition number)    5. first sector(press enter)    6. +200M(size K ,M or G)    7. w(write changes and exit) 2. Scan for block devices (LVM)    1. lvmdiskscan(shows all partitions) 3. Convert created partition to physical volume    1. pvcreate /dev/sd?? 4. Display physical volumes (Full info)    1. pvdisplay   **Or** you can display only supported Physical volume   * 1. pvscan   **Or** list newly created physical   * 1. pvs  1. Create volume group and add created partition to it    1. vgcreate volumeGroupName /dev/sd??   Or if you have more than one partition   * 1. vgcreate volumeGroupName /dev/sd?? /dev/sdb?? /dev/sd??  1. Create logical volume of free space in volume group    1. lvcreate -n logicalVolumeName -l 100%FREE volumeGroupName 2. Display created logical volumes    1. lvdisplay   or you can use below command   * 1. lvscan  1. use mkfs command to format the newly created partition    1. mkfs.ext4 /dev/volumeGroupName/logicalVolumeName 2. mount the newly created logical volume to directory (temporary)    1. mkdir directoryName    2. mount /dev/volumeGroupName/logicalVolumeName /directoryName 3. mount the newly created logical volume to directory (not temporary)    1. mkdir directoryName    2. blkid /dev/volumeGroupName/logicalVolumeName    3. nano /etc/fstab or vi /etc/fstab    4. add the logical volume UUID to /etc/fstab file    5. UUID=xxxx directoryName ext4 defaults 0 0    6. Save file    7. mount –a 4. Display created partitions    1. df –h |
| 2. Reduce size of logical volume   1. will reduce 100M from logical volume    1. lvreduce -L –100M -r /dev/volumeGroupName/logicalVolumeName   3.Extend size of logical volume   1. will extend logical volume by 50M    1. lvextend -l +50%FREE -r /dev/volumeGroupName/logicalVolumeName |
| 4.Extend size of volume group   1. will extend volume group by 500M    1. vgextend volumeGroupName logicalVolumeName |
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