**SAN (Storage Area Network)**

**5GB**

Windows

172.24.0.30

10GB

**4GB**

Linux storage Ser

172.24.0.10

Linux

172.24.0.20

1. Attach hard drive with storage server
2. Create partition (primary preferred as a whole) and format it to LVM
3. Convert it to primary partition using pvcreate |pvcreate /dev/sdb1
4. Convert it to group i.e. |vgcreate vg1 /dev/sdb1
5. Convert it back to logical volume accordingly by

|lvcreate -L +5G -n win vg1

|lvcreate -L +4G -n lin vg1

1. To see the logical volumes |lvdisplay |less
2. **To share the hard disk we need to implement a ‘target server’ for it we need to install**

|yum install \*scsi\*

1. Checkout the conf file |vi /etc/tgt/targets.conf

#search for <target iqn.2008-09.com.example:…..>

#below it type as it is

|<target iqn.2019-06.com.example:win>

| backing-store /dev/vg1/win

| write-cache off

|</target>

|<target iqn.2019-06.com.example:lin>

| backing-store /dev/vg1/lin

| write-cache off

|</target>

1. |service tgtd start
2. To check whether the tftd is properly implemented |tgt-admin –show

**On windows client side**

1. Search for iscsi-initiator
2. Now find the target and click on connect
3. Now goto diskpart
4. And convert into gpt/mbr and format it and enjoy using it

**On Linux client side**

1. |yum install \*scsi\*
2. |iscsiadm -m discovery -t st -p 172.24.0.10
3. |iscsiadm -m node -T iqn.2019-06.com.example:lin -p 172.24.0.10 -l
4. Create partition of type primary
5. Fomat into ext4
6. Mount
7. Enjoy
8. To logout |iscsiadm -m node -T iqn.2019-06.com.example:lin -p 172.24.0.10 -u

Last flag -u stands for logout and -l for login

**File sharing server**

* When windows🡨🡪Windows file sharing\* takes place, SMB is used
* When Linux🡨🡪Linux file sharing\* takes place NFS (Network File System) is used
* Linux🡨🡪Windows file sharing\* takes place using SAMBA server

**Linux🡨🡪Linux file sharing**

1. Create a directory say project in root directory of one machine
2. NFS is pre-implemented in linux machines
3. Go to conf file |vi /etc/exports

Edit it as

|/project <dest ip> \*(rw)

Flags are rw-read write, ro-read only, note🡪 give des tip only if the file has to be shared specifically. Or else leave it blank to make it available for full network.

1. |service nfs start and |chkconfig nfs on to permanent the settings
2. Now goto client and make directory soft so that the external directory could be mounted and type |mount <source ip>:/project /soft and give permission from server to file to others