

# Linux- NFS

Komal sawant roll no -15

## Deb 1

Install NSF server

### 1) `sudo apt-get install nfs-kernel-server`

```
shuhari@debian:~$ sudo apt-get install nfs-kernel-server -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  keyutils libevent-2.1-6 libldap-2.4-2 libldap-common libnfsidmap2 libsas12-2 libsas12-modules-db
  libtirpc-common libtirpc3 nfs-common rpcbind
Suggested packages:
  open-iscsi watchdog
Recommended packages:
  libsas12-modules python
The following NEW packages will be installed:
  keyutils libevent-2.1-6 libldap-2.4-2 libldap-common libnfsidmap2 libsas12-2 libsas12-modules-db
  libtirpc-common libtirpc3 nfs-common nfs-kernel-server rpcbind
0 upgraded, 12 newly installed, 0 to remove and 0 not upgraded.
```

### 2) make folder - `/mnt/ditiss` at server side

```
shuhari@debian:~$ sudo mkdir /mnt/ditiss
```

### 3) make text files in ditiss folder

```
shuhari@debian:~$ sudo touch file{1..3}.txt
```

### 4) check the files

```
shuhari@debian:/mnt/ditiss$ ls -l
total 0
-rw-r--r-- 1 root root 0 May 15 08:11 file1.txt
-rw-r--r-- 1 root root 0 May 15 08:11 file2.txt
-rw-r--r-- 1 root root 0 May 15 08:11 file3.txt
```

5) edit `sudo nano /etc/exports`

```
shuhari@debian:~$ sudo nano /etc/exports
```

```
shuhari@debian: ~
GNU nano 3.2 /etc/exports

## /etc/exports: the access control list for filesystems which may be exported
# to NFS clients. See exports(5).
#
# Example for NFSv2 and NFSv3:
# /srv/homes hostname1(rw,sync,no_subtree_check) hostname2(ro,sync,no_subtree_check)
#
# Example for NFSv4:
# /srv/nfs4 gss/krb5i(rw,sync,fsid=0,crossmnt,no_subtree_check)
# /srv/nfs4/homes gss/krb5i(rw,sync,no_subtree_check)
#
/mnt/ditiss 192.168.80.128(rw,sync,no_subtree_check)
```

Now go to client side

DEB 2

6) make folder - `/mnt/client_ditiss` at client side

```
shuhari@debian:~$ sudo mkdir /mnt/client_ditiss
```

7) Now mount the files from ditiss from server side to client side `client_ditiss` folder

```
shuhari@debian:~$ sudo mount 192.168.80.131:/mnt/ditiss /mnt/client_ditiss/
shuhari@debian:~$ sudo mount | grep client
```

Now the all files from ditiss will mounted to client\_ditiss/

```
shuhari@debian:~$ cd /mnt/client_ditiss/
shuhari@debian:/mnt/client_ditiss$ ls -l
total 0
-rw-r--r-- 1 root root 0 May 15 08:11 file1.txt
-rw-r--r-- 1 root root 0 May 15 08:11 file2.txt
-rw-r--r-- 1 root root 0 May 15 08:11 file3.txt
```

BUT AFTER REBOOTING DEB2 ALL FILES WILL FLUSH

```
shuhari@debian:~$ sudo reboot
```

```
shuhari@debian:~$ cd /mnt/client_ditiss/
shuhari@debian:/mnt/client_ditiss$ ls -l
total 0
shuhari@debian:/mnt/client_ditiss$
```

SO WE HAVE TO EDIT fstab file for permanent mounting


```
shuhari@debian: ~
GNU nano 3.2 /etc/fstab

# /etc/fstab: static file system information.
#
# Use 'blkid' to print the universally unique identifier for a
# device; this may be used with UUID= as a more robust way to name devices
# that works even if disks are added and removed. See fstab(5).
#
# <file system> <mount point> <type> <options> <dump> <pass>
# / was on /dev/sda3 during installation
UUID=5497aaa0-0fcc-4130-8a35-e6ea354b6ae3 / ext4 errors=remount-ro 0 1
# /boot was on /dev/sda1 during installation
UUID=04ef95de-9ce2-45e1-af33-638788a87e20 /boot ext4 defaults 0 2
# swap was on /dev/sda2 during installation
UUID=f57b4c0d-5faa-46ce-a18a-1f1a2ff6d4d0 none swap sw 0 0
/dev/sr0 /media/cdrom0 udf,iso9660 user,noauto 0 0

# permanant mounting on client
192.168.80.131:/mnt/ditiss /mnt/client_ditiss nfs rw,rsz=8192,wsz=8192,noauto 0 0
```

Now reboot again check the files are there or not ....

whenever you restart the NFS client or run the mount -a command, the NFS share specified in /etc/fstab will be mounted at the configured local mount point automatically.

 shuhari@debian: /mnt/client\_ditiss

```
shuhari@debian:~$ sudo mount -a
[sudo] password for shuhari:
shuhari@debian:~$ cd /mnt/client_ditiss/
shuhari@debian:/mnt/client_ditiss$ ls -l
total 0
-rw-r--r-- 1 root root 0 May 15 08:11 file1.txt
-rw-r--r-- 1 root root 0 May 15 08:11 file2.txt
-rw-r--r-- 1 root root 0 May 15 08:11 file3.txt
```

Now files will automatically mounted after rebooting .