# **Setup NFS server-client in Centos 7.**

[#linux](https://dev.to/t/linux) [#nfs](https://dev.to/t/nfs) [#centos](https://dev.to/t/centos) [#filesharing](https://dev.to/t/filesharing)

In this blog, I will answer some basic questions about NFS and explain how to setup NFS server-client.

# **What is NFS ?**

Network File System(NFS) is a distributed file system protocol, to share the files and folders between the Linux/Unix systems.

# **Why is it used ?**

To share files. Since mounting of filesystem is possible,  
 NFS-Client can access the files of NFS-Server as like the local files.

# **How to set up NFS ?**

Since it's like a client-server model, we need to setup server and client individually.

## **Setup NFS-server**

In this post, we are doing it in Centos, which uses yum as the package manager.  
 1.Installing nfs-utils

sudo su -

yum install nfs-utils

2.Choose the directory to share. If not present, create one.

mkdir /home

3.Add permissions and ownership privileges to the shared directory.

chmod -R 755 /home

chown nfsnobody:nfsnobody /home

4.Start the nfs services.

systemctl enable rpcbind

systemctl enable nfs-server

systemctl enable nfs-lock

systemctl enable nfs-idmap

systemctl start rpcbind

systemctl start nfs-server

systemctl start nfs-lock

systemctl start nfs-idmap

5.Configuring the exports file for sharing.  
 Open the exports file and add these lines.

vi /etc/exports

Fill in the file-shared path and client details in /etc/exports.  
 192.168.48.101 - Client's IP

/home 192.168.48.101(rw,sync,no\_root\_squash)

6.Restart the service

systemctl restart nfs-server

7.Only for Centos 7,NFS service override

firewall-cmd --permanent --zone=public --add-service=nfs

firewall-cmd --permanent --zone=public --add-service=mountd

firewall-cmd --permanent --zone=public --add-service=rpc-bind

firewall-cmd --reload

## **Setup NFS-Client(s)**

1.Installing nfs-utils

sudo su -

yum install nfs-utils

2.Create a mount point

mkdir -p /mnt/nfs/home

3.Mounting the filesystem

mount -t nfs 192.168.48.100:/home /mnt/nfs/home

-t type of filesystem

192.168.48.100 server's IP

4.Verify if mounted

$ df -kh

Filesystem Size Used Avail Use% Mounted on

/dev/mapper/centos-root 39G 1.1G 38G 3% /

devtmpfs 488M 0 488M 0% /dev

tmpfs 494M 0 494M 0% /dev/shm

tmpfs 494M 6.7M 487M 2% /run

tmpfs 494M 0 494M 0% /sys/fs/cgroup

/dev/mapper/centos-home 19G 33M 19G 1% /home

/dev/sda1 497M 126M 372M 26% /boot

192.168.48.100:/home 39G 980M 38G 3% /mnt/nfs/home

5.Mounting permanently.  
 Now if the client is rebooted, we need to remount again. So, to mount permanently,we need to configure */etc/fstab* file.  
 Append this to /etc/fstab

192.168.48.100:/home /mnt/nfs/home nfs defaults 0 0

To verify, create a file in the Client-side, and open in server-side.

Client-side(192.168.48.101)

echo "Client Hello" >> /mnt/nfs/home/testing.txt

Server-side(192.168.48.100)

$ cat /home/testing.txt

Client Hello

Hurray! Now client is able to access the files of server.