Set Up an NFS Mount on Ubuntu 18.04

Host: 203.0.113.0

Client: 203.0.113.24

Downloading and Installing the Components

sudo apt update

sudo apt install nfs-kernel-server

On the Client

On the client server, we need to install a package called nfs-common, which provides NFS functionality without including unneeded server components. Again, refresh the local package index prior to installation to ensure that you have up-to-date information:

sudo apt update

sudo apt install nfs-common

Creating the Share Directories on the Host

sudo mkdir /var/nfs/general -p

ls -la /var/nfs/general

sudo chown nobody:nogroup /var/nfs/general

Configuring the NFS Exports on the Host Server

sudo nano /etc/exports

/etc/exports

directory\_to\_share client(share\_option1,...,share\_optionN)

/etc/exports

/var/nfs/general 203.0.113.24(rw,sync,no\_subtree\_check)

/home 203.0.113.24(rw,sync,no\_root\_squash,no\_subtree\_check)

sudo systemctl restart nfs-kernel-server

Adjusting the Firewall on the Hostsudo ufw status

Output

Status: active

To Action From

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OpenSSH ALLOW Anywhere

OpenSSH (v6) ALLOW Anywhere (v6)

sudo ufw allow from 203.0.113.24 to any port nfs

sudo ufw status

Output

Status: active

To Action From

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OpenSSH ALLOW Anywhere

2049 ALLOW 203.0.113.24

OpenSSH (v6) ALLOW Anywhere (v6)

Creating Mount Points and Mounting Directories on the Client

Note: If there are files and directories in your mount point, they will become hidden as soon as you mount the NFS share. To avoid the loss of important files, be sure that if you mount in a directory that already exists that the directory is empty.

We’ll create two directories for our mounts:

sudo mkdir -p /nfs/general

sudo mkdir -p /nfs/home

sudo mount 203.0.113.0:/var/nfs/general /nfs/general

sudo mount 203.0.113.0:/home /nfs/home

df -h

For example:

du -sh /nfs/home

Output

36K /nfs/home

Testing NFS Access

sudo touch /nfs/general/general.test

ls -l /nfs/general/general.test

Mounting the Remote NFS Directories at Boot

sudo nano /etc/fstab

/etc/fstab

. . .

203.0.113.0:/var/nfs/general /nfs/general nfs auto,nofail,noatime,nolock,intr,tcp,actimeo=1800 0 0

203.0.113.0:/home /nfs/home nfs auto,nofail,noatime,nolock,intr,tcp,actimeo=1800 0 0

Unmounting an NFS Remote Share

cd ~

sudo umount /nfs/home

sudo umount /nfs/general

df -h