How to Configure NFS Server

On Server Machine

```
[root@server0 ~]# hostname
server0.example.com
[root@server0 ~]#
[root@server0 ~]# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 172.25.0.11  netmask 255.255.255.0  broadcast
172.25.0.255
        inet6 fe80::5054:ff:fe00:b  prefixlen 64  scopeid 0x20<link>
        ether 52:54:00:00:00:0b  txqueuelen 1000  (Ethernet)
        RX packets 1300  bytes 161708 (157.9 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 372  bytes 39446 (38.5 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 0  (Local Loopback)
        RX packets 12  bytes 976 (976.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 12  bytes 976 (976.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@server0 ~]#
[root@server0 ~]# ip route
[root@server0 ~]# ip route
default via 172.25.0.254 dev eth0  proto static  metric 1024
172.25.0.0/24 dev eth0  proto kernel  scope link  src 172.25.0.11
172.25.253.254 via 172.25.0.254 dev eth0  proto static  metric 1
[root@server0 ~]#

[root@server0 ~]# yum install  nfs*  -y


[root@server0 ~]# systemctl start  nfs-server
[root@server0 ~]#
[root@server0 ~]# systemctl enable    nfs-server
ln -s '/usr/lib/systemd/system/nfs-server.service'
'/etc/systemd/system/nfs.target.wants/nfs-server.service'
[root@server0 ~]#
[root@server0 ~]#
[root@server0 ~]#
[root@server0 ~]# firewall-cmd   --permanent   --add-service=nfs
success
[root@server0 ~]# firewall-cmd   --permanent   --add-service=rpc-bind
success
```

```
[root@server0 ~]# firewall-cmd   --permanent   --add-service=mountd
success
[root@server0 ~]# firewall-cmd   --reload
success
[root@server0 ~]# firewall-cmd  --list-services
dhcpv6-client mountd nfs rpc-bind ssh
[root@server0 ~]#
[root@server0 ~]# mkdir  /public
[root@server0 ~]#
[root@server0 ~]# mkdir  /private
[root@server0 ~]#
[root@server0 ~]# touch  /public/abc{1..3}
[root@server0 ~]#
[root@server0 ~]# touch   /private/xyz{1..3}
[root@server0 ~]#
[root@server0 ~]# ls /public
abc1  abc2  abc3
[root@server0 ~]#
[root@server0 ~]# ls /private
xyz1  xyz2  xyz3
[root@server0 ~]#
[root@server0 ~]# chmod   777  /private

[root@server0 ~]# vim  /etc/exports

/public         *(ro)
/private        172.25.0.0/24(rw)


save and quit from this file

[root@server0 ~]# systemctl   restart nfs-server

[root@server0 ~]# exportfs
/private        172.25.0.0/24
/public         <world>
[root@server0 ~]#


[root@server0 ~]# exportfs -r
[root@server0 ~]#
[root@server0 ~]#
[root@server0 ~]# systemctl   reload   nfs-server
[root@server0 ~]#  netstat  -tunlp  | grep 2049
[root@server0 ~]#  netstat  -tunlp  | grep 111
[root@server0 ~]#  rpcinfo  -p


*****************************   Server End is Ready ********
```

Now go on Client machine and try to mount nfs data on any directory ?

```
[root@desktop0 ~]# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 172.25.0.10  netmask 255.255.255.0  broadcast
172.25.0.255
        inet6 fe80::5054:ff:fe00:a  prefixlen 64  scopeid 0x20<link>
        ether 52:54:00:00:00:0a  txqueuelen 1000  (Ethernet)
        RX packets 1768  bytes 206900 (202.0 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 389  bytes 38908 (37.9 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 0  (Local Loopback)
        RX packets 12  bytes 976 (976.0 B)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 12  bytes 976 (976.0 B)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

[root@desktop0 ~]# ping  172.25.0.11
PING 172.25.0.11 (172.25.0.11) 56(84) bytes of data.
64 bytes from 172.25.0.11: icmp_seq=1 ttl=64 time=0.969 ms
64 bytes from 172.25.0.11: icmp_seq=2 ttl=64 time=0.935 ms
^C
--- 172.25.0.11 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1002ms
rtt min/avg/max/mdev = 0.935/0.952/0.969/0.017 ms
[root@desktop0 ~]#

[root@desktop0 ~]# showmount  -e  172.25.0.11
Export list for 172.25.0.11:
/public  *
/private 172.25.0.0/24
[root@desktop0 ~]#


[root@desktop0 ~]# mkdir   /dataread
[root@desktop0 ~]#
[root@desktop0 ~]# mkdir   /datawrite
[root@desktop0 ~]#
[root@desktop0 ~]# mount 172.25.0.11:/public   /dataread
[root@desktop0 ~]#
[root@desktop0 ~]# ls  /dataread
abc1  abc2  abc3
[root@desktop0 ~]#
[root@desktop0 ~]# mount 172.25.0.11:/private   /datawrite
[root@desktop0 ~]#
[root@desktop0 ~]# ls /datawrite
```

```
xyz1  xyz2  xyz3


[root@desktop0 ~]# vim /etc/fstab


172.25.0.11:/public     /dataread        nfs     defaults         0 0
172.25.0.11:/private    /datawrite       nfs     defaults         0 0


 save and quit from this file

[root@desktop0 ~]# mount  -a
[root@desktop0 ~]#
[root@desktop0 ~]# df  -h
Filesystem           Size  Used Avail Use% Mounted on
/dev/vda1             10G  3.0G  7.1G  30% /
devtmpfs             906M     0  906M   0% /dev
tmpfs                921M   80K  921M   1% /dev/shm
tmpfs                921M   17M  904M   2% /run
tmpfs                921M     0  921M   0% /sys/fs/cgroup
172.25.0.11:/public   10G  3.2G  6.9G  32% /dataread
[root@desktop0 ~]#
[root@desktop0 ~]# mount  | grep nfs4
172.25.0.11:/public on /dataread type nfs4
(rw,relatime,vers=4.0,rsize=262144,wsize=262144,namlen=255,hard,proto=
tcp,port=0,timeo=600,retrans=2,sec=sys,clientaddr=172.25.0.10,local_lo
ck=none,addr=172.25.0.11)
172.25.0.11:/private on /datawrite type nfs4
(rw,relatime,vers=4.0,rsize=262144,wsize=262144,namlen=255,hard,proto=
tcp,port=0,timeo=600,retrans=2,sec=sys,clientaddr=172.25.0.10,local_lo
ck=none,addr=172.25.0.11)
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]# cd  /dataread
[root@desktop0 dataread]#
[root@desktop0 dataread]# ls
abc1  abc2  abc3
[root@desktop0 dataread]# cat abc1
[root@desktop0 dataread]#
[root@desktop0 dataread]# touch abc4
touch: cannot touch â€˜abc4â€™: Read-only file system
[root@desktop0 dataread]#
[root@desktop0 dataread]# cp -rf  /etc/passwd  /dataread
cp: cannot create regular file â€˜/dataread/passwdâ€™: Read-only file
system
[root@desktop0 dataread]#
[root@desktop0 dataread]# ls
abc1  abc2  abc3
```

```
[root@desktop0 dataread]# cp -rf  *    /tmp
[root@desktop0 dataread]#
[root@desktop0 dataread]# ls /tmp
abc1  abc2  abc3  rht  systemd-private-QfgTWp  systemd-private-ShhUa8
[root@desktop0 dataread]# cd
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]# cd  /datawrite
[root@desktop0 datawrite]#
[root@desktop0 datawrite]# ls
xyz1  xyz2  xyz3
[root@desktop0 datawrite]# cat xyz1
[root@desktop0 datawrite]#
[root@desktop0 datawrite]#
[root@desktop0 datawrite]# echo  "hello"  > xyz4
[root@desktop0 datawrite]#
[root@desktop0 datawrite]# ls
xyz1  xyz2  xyz3  xyz4
[root@desktop0 datawrite]# cat xyz4
hello
[root@desktop0 datawrite]#
[root@desktop0 datawrite]# cp -rf   /etc    /datawrite
[root@desktop0 datawrite]# cd
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]# ls /datawrite
etc  xyz1  xyz2  xyz3  xyz4
```

How to Disconnect NFS CLient ?

```
[root@desktop0 ~]# umount   /dataread
[root@desktop0 ~]#
[root@desktop0 ~]# umount   /datawrite
[root@desktop0 ~]#
[root@desktop0 ~]#
[root@desktop0 ~]# vim  /etc/fstab
```

delete the last entry...

save and quit

```
[root@desktop0 ~]# mount -a
[root@desktop0 ~]# df -h
Filesystem      Size  Used Avail Use% Mounted on
/dev/vda1        10G  3.0G  7.1G  30% /
devtmpfs        906M     0  906M   0% /dev
tmpfs           921M   80K  921M   1% /dev/shm
tmpfs           921M   17M  904M   2% /run
tmpfs           921M     0  921M   0% /sys/fs/cgroup
[root@desktop0 ~]#
```