

COMP 7006 - Lab3 Report

NFS and SAMBA

Configure NFS

Prerequisite:

- NFS installed (dnf install nfs-utils)
- SAMBA installed (dnf install samba)

Setup NFS

1. Login as root, create a user “**Lab3FT**”, and add a password to the user .
Change to home directory “**cd /home**”
Change permission of the user directory “**Lab3FT**” to **755**

```
[root@5VQ3BG2-075B ~]# useradd Lab3FT
[root@5VQ3BG2-075B ~]# passwd Lab3FT
Changing password for user Lab3FT.
New password:
BAD PASSWORD: The password is shorter than 8 characters
Retype new password:
passwd: all authentication tokens updated successfully.
[root@5VQ3BG2-075B ~]# cd /home/
[root@5VQ3BG2-075B home]# chmod 755 Lab3FT/
[root@5VQ3BG2-075B home]# ll
total 24
drwx-----. 30 kenwu  kenwu   4096 Sep 26 20:41 kenwu
drwxr-xr-x   3 Lab3FT Lab3FT   4096 Sep 26 21:31 Lab3FT
drwx-----.  2 root   root    16384 Sep 17 15:14 lost+found
[root@5VQ3BG2-075B home]#
```

2. Login as the user “**Lab3FT**”, create file in “**Lab3FT**” (can run pwd to check current directory)

```
[root@5VQ3BG2-075B ~]# su Lab3FT
[Lab3FT@5VQ3BG2-075B root]$ 
[Lab3FT@5VQ3BG2-075B ~]$ cat > "lab3file"
lab3 report
[Lab3FT@5VQ3BG2-075B ~]$
```

3. Change access permission of the file

```
[Lab3FT@5VQ3BG2-075B ~]$ chmod 777 lab3file
[Lab3FT@5VQ3BG2-075B ~]$ ll
total 4
-rwxrwxrwx 1 Lab3FT Lab3FT 12 Sep 26 19:37 lab3file
[Lab3FT@5VQ3BG2-075B ~]$
```

- ```
"/home/Lab3FT 192.168.0.0/24(rw,no_root_squash)"
```

[illegible]

- ```
[root@5VQ3BG2-075B ~]# systemctl enable nfs-server.service
Created symlink /etc/systemd/system/multi-user.target.wants/nfs-server.service →
/usr/lib/systemd/system/nfs-server.service.
[root@5VQ3BG2-075B ~]# systemctl start nfs-server
[root@5VQ3BG2-075B ~]# systemctl status nfs-server
● nfs-server.service - NFS server and services
   Loaded: loaded (/usr/lib/systemd/system/nfs-server.service; enabled; vendor >
   Drop-In: /run/systemd/generator/nfs-server.service.d
            └─order-with-mounts.conf
   Active: active (exited) since Thu 2019-09-26 19:51:31 PDT; 23s ago
   Process: 25294 ExecStartPre=/usr/sbin/exportfs -r (code=exited, status=0/SUCC>
   Process: 25295 ExecStart=/usr/sbin/rpc.nfsd (code=exited, status=0/SUCCESS)
   Process: 25307 ExecStart=/bin/sh -c if systemctl -q is-active gssproxy; then >
   Main PID: 25307 (code=exited, status=0/SUCCESS)

Sep 26 19:51:29 5VQ3BG2-075B.hitronhub.home systemd[1]: Starting NFS server and>
Sep 26 19:51:31 5VQ3BG2-075B.hitronhub.home systemd[1]: Started NFS server and >
lines 1-12/12 (END)
```

6. Make the file system available

```
[root@5VQ3BG2-075B ~]# exportfs -v
/home/Lab3FT 192.168.0.0/24(sync,wdelay,hide,no_subtree_check,sec=sys,rw,secure,no_root_squash,no_all_squash)
[root@5VQ3BG2-075B ~]#
```

7. Access from a separate Linux machine

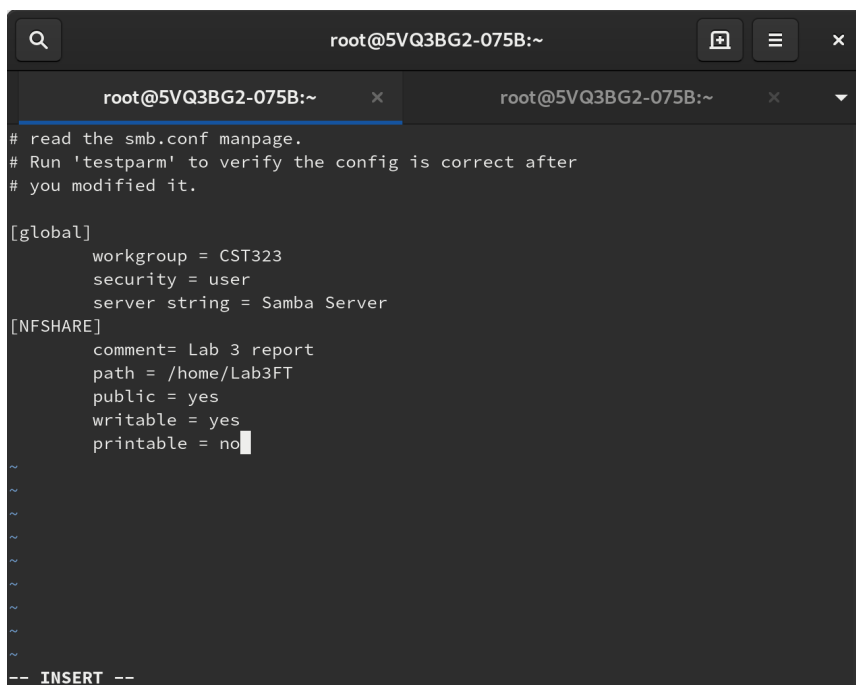
```
[eric@localhost ~]$ sudo mount -t nfs 192.168.0.27:/home/Lab3FT /mnt
[eric@localhost ~]$ cd /mnt
[eric@localhost mnt]$ ll
total 4
-rwxrwxrwx. 1 Lab3FT Lab3FT 12 Sep 26 19:37 lab3file
[eric@localhost mnt]$
```

8. Clean up after testing, run “**umount /mnt**” (make sure out of /mnt when run this cmd)

Setup SAMBA (public security)

9. Modify the SAMBA configuration file “**sudo vi /etc/samba/smb.conf**”

```
[global]
    workgroup = CST 323
    security = user
    server string = Samba Server
[NFSHARE]
    comment = Lab 3 report
    path = /home/Lab3FT
    public = yes
    writable = yes
    printable = no
```



```
root@5VQ3BG2-075B:~
# read the smb.conf manpage.
# Run 'testparm' to verify the config is correct after
# you modified it.

[global]
    workgroup = CST323
    security = user
    server string = Samba Server
[NFSHARE]
    comment= Lab 3 report
    path = /home/Lab3FT
    public = yes
    writable = yes
    printable = no
~
~
~
~
~
~
~
-- INSERT --
```

10. Restart SAMBA

Run: **"systemctl stop smb"**
"systemctl start smb"
"systemctl status smb"

```
root@5VQ3BG2-075B:~  
[root@5VQ3BG2-075B ~]# systemctl start smb  
[root@5VQ3BG2-075B ~]# systemctl status smb  
● smb.service - Samba SMB Daemon  
   Loaded: loaded (/usr/lib/systemd/system/smb.service; disabled; vendor preset: enabled)  
   Active: active (running) since Thu 2019-09-26 20:15:42 PDT; 15s ago  
     Docs: man:smbd(8)  
           man:samba(7)  
           man:smb.conf(5)  
  Main PID: 26902 (smbd)  
    Status: "smbd: ready to serve connections..."  
   Tasks: 4 (limit: 4915)  
  Memory: 13.2M  
   CGroup: /system.slice/smb.service  
           └─26902 /usr/sbin/smbd --foreground --no-process-group  
             └─26904 /usr/sbin/smbd --foreground --no-process-group  
               └─26905 /usr/sbin/smbd --foreground --no-process-group  
                 └─26906 /usr/sbin/smbd --foreground --no-process-group  
  
Sep 26 20:15:42 5VQ3BG2-075B.hitronhub.home systemd[1]: Starting Samba SMB Daemon:  
Sep 26 20:15:42 5VQ3BG2-075B.hitronhub.home smbd[26902]: [2019/09/26 20:15:42.2>  
Sep 26 20:15:42 5VQ3BG2-075B.hitronhub.home smbd[26902]: daemon_ready: daemon>  
Sep 26 20:15:42 5VQ3BG2-075B.hitronhub.home systemd[1]: Started Samba SMB Daemo>  
lines 1-20/20 (END)
```

11. Add the "Lab3FT" to the smbpasswd file

Run: **"smbpasswd -a Lab3FT"**
"smbpasswd Lab3FT" (samba password must match the Linux user password)

```
root@5VQ3BG2-075B:~  
[root@5VQ3BG2-075B ~]# vi /etc/samba/smb.conf  
[root@5VQ3BG2-075B ~]# smbpasswd -a Lab3FT  
New SMB password:  
Retype new SMB password:  
Added user Lab3FT.  
[root@5VQ3BG2-075B ~]#
```

12. Test it on window

Navigate to “This PC” -> Right Click -> “Map Network Device” -> enter the IP of the host followed by “NFSHARE” label (refer to step 9 [NFSHARE]) -> enter credentials

