



Expt. No.

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Date

16-8-2023Sub titles : Assignment/ Problem Solution, Flow chart/Algorithm, Problem Listing,
Input Screen, Output Screen, Comments (If any)

Aim: Configure NFS server to share your directories on your NFS

Theory :

• NFS

- NFS allows a system to share directories and files with other over a network.

By using NFS, users and programs can access files on remote systems almost as if they were local files.

- Some of the files most notable benefits that NFS can provide are.

1) Local workstations use less disk space because commonly used data can be stored on a single machine and still remain accessible to others over the network.

2) There is no need for users to have separate home directories on every network machine.

Remark

3) Home directories could be setup on the NFS server and made available throughout the network.

Signature

4) Storage devices such as Floppy disks, C.DROM drives and USB thumb drives can be used by other machine on the network.

5) This may reduce the number of removable drives throughout the network.

Server:

```

root@ammar-VirtualBox:~# nano /etc/exports
root@ammar-VirtualBox:~# hostname
ammar-VirtualBox
root@ammar-VirtualBox:~# nano /etc/exports
root@ammar-VirtualBox:~# systemctl restart nfs-server
root@ammar-VirtualBox:~# mehraj-VirtualBox
mehraj-VirtualBox: command not found
root@ammar-VirtualBox:~# ping mehraj-VirtualBox
ping: unknown host mehraj-VirtualBox
root@ammar-VirtualBox:~# mount -t nfs mehraj-VirtualBox:/home /home

root@ammar-VirtualBox:~# mount -t nfs mehraj-VirtualBox:/home /home
mount.nfs: Failed to resolve server mehraj-VirtualBox: Name or service not known
root@ammar-VirtualBox:~# systemctl restart nfs-server
root@ammar-VirtualBox:~# mount -t nfs mehraj-VirtualBox:/home /home
mount.nfs: Failed to resolve server mehraj-VirtualBox: Name or service not known
root@ammar-VirtualBox:~# apt-get -y install nfs-kernel-server
Reading package lists... Done
.....
snapd-login-servicepp
Use 'apt autoremove' to remove it.
0 upgraded, 0 newly installed, 0 to remove and 147 not upgraded.
root@ammar-VirtualBox:~# systemctl restart nfs-server
root@ammar-VirtualBox:~# nano /etc/exports
root@ammar-VirtualBox:~# systemctl restart nfs-server
root@ammar-VirtualBox:~# nano /etc/exports
root@ammar-VirtualBox:~# pwd
/root
root@ammar-VirtualBox:~# ls
Desktop Documents Downloads Music Pictures Public Templates Videos
root@ammar-VirtualBox:~# cd home

```

CLIENT:-

```

root@mehraj-VirtualBox:/# apt-get -y install nfs-common
.....
Creating config file /etc/idmapd.conf with new version
Creating config file /etc/default/nfs-common with new version
Adding system user `statd' (UID 121) ...
.....
root@mehraj-VirtualBox:/# systemctl retart nfs
Unknown operation retart.
root@mehraj-VirtualBox:/# systemctl retart nfs-common
Unknown operation retart.
root@mehraj-VirtualBox:/# systemctl retart nfs-server
Unknown operation retart.
root@mehraj-VirtualBox:/# nano /etc/idmapd.conf
root@mehraj-VirtualBox:/# apt-get -y install nfs-common
Reading package lists... Done
.....
root@mehraj-VirtualBox:/# mount -t nfs mehraj-VirtualBox:/home /home
root@mehraj-VirtualBox:/# sudo apt-get -y install nfs-common

```


Reading package lists... Done

.....

root@mehraj-VirtualBox:/# nano /etc/idmapd.conf

root@mehraj-VirtualBox:/# mount -t nfs 192.168.56.101:/home /home

root@mehraj-VirtualBox:/# df -hT

Filesystem	Type	Size	Used	Avail	Use%	Mounted on
udev	devtmpfs	476M	0	476M	0%	/dev
tmpfs	tmpfs	100M	4.9M	95M	5%	/run
/dev/sda1	ext4	8.8G	4.3G	4.1G	52%	/
tmpfs	tmpfs	500M	212K	499M	1%	/dev/shm
tmpfs	tmpfs	5.0M	4.0K	5.0M	1%	/run/lock
tmpfs	tmpfs	500M	0	500M	0%	/sys/fs/cgroup
tmpfs	tmpfs	100M	68K	100M	1%	/run/user/1000
/dev/sr0	iso9660	52M	52M	0	100%	/media/mehraj/VBox_GAs_7.0.10
192.168.56.101:/home	nfs4	9.3G	56M	8.8G	1%	/home

root@mehraj-VirtualBox:/# ls

```
bin  dev  initrd.img  media  proc  sbin  sys  var
boot  etc  lib      mnt  root  snap  tmp  vmlinuz
cdrom  home  lost+found  opt  run  srv  usr
```

root@mehraj-VirtualBox:/# nano /etc/fstab

root@mehraj-VirtualBox:/# apt-get -y install autofs

Reading package lists... Done

.....

Processing triggers for systemd (229-4ubuntu21.1) ...

Processing triggers for ureadahead (0.100.0-19) ...

root@mehraj-VirtualBox:/# nano /etc/auto.master

root@mehraj-VirtualBox:/# nano /etc/auto.mount

root@mehraj-VirtualBox:/# mkdir /mntdir

root@mehraj-VirtualBox:/# systemctl restart autofs

root@mehraj-VirtualBox:/# cd /mntdir

root@mehraj-VirtualBox:/mntdir# ll

root@mehraj-VirtualBox:/mntdir# cat /proc/mounts | grep mntdir

Adjust your computer's settings

View by: Small icons

- Administrative Tools
- BitLocker Drive Encryption
- Date and Time
- Devices and Printers
- File Explorer Options
- Fonts
- Internet Options
- Mouse
- Phone and Modem
- Recovery
- Security and Maintenance
- Storage Spaces
- Taskbar and Navigation
- Windows Defender
- Work Folders
- AutoPlay
- Color Management
- Default Programs
- Display
- File History
- HomeGroup
- Keyboard
- Network and Sharing Center
- Power Options
- Region
- Sound
- Sync Center
- Troubleshooting
- Windows Firewall
- Backup and Restore (Windows 7)
- Credential Manager
- Device Manager
- Ease of Access Center
- Flash Player (32-bit)
- Indexing Options
- Language
- Personalization
- Programs and Features
- RemoteApp and Desktop Connections
- Speech Recognition
- System
- User Accounts
- Windows To Go

Control Panel Home

View installed updates

Turn Windows features on or off

Windows Features

Turn Windows features on or off

To turn a feature on, select its check box. To turn a feature off, clear its check box. A filled box means that only part of the feature is turned on.

- ☒ Microsoft Print to PDF
- ☐ MultiPoint Connector
- ☒ Print and Document Services
- ☐ RAS Connection Manager Administration Kit (CMAX)
- ☒ Remote Differential Compression API Support
- ☐ RIP Listener
- ☒ Services for NFS
- ☒ Administrative Tools
- ☒ Client for NFS
- ☐ Simple Network Management Protocol (SNMP)
- ☐ Simple TCP/IP services (i.e. echo, daytime etc)
- ☒ SMB 1.0/CIFS File Sharing Support

OK Cancel

Install, Change, or Repair.

Corporation
Corporation
Inc.



Currently installed programs Total size: 108 MB
3 programs installed

Select Administrator: Command Prompt

```
Microsoft Windows [Version 10.0.19044.3086]
(c) Microsoft Corporation. All rights reserved.

C:\Windows\system32>mount 192.168.56.101:/home Z:\
Z: is now successfully connected to 192.168.56.101:/home

The command completed successfully.

C:\Windows\system32>
```

