

SAMBA SHARE

Experiment: 2

Aim: Installation and configuration of Samba share.

Description:

SAMBA

One of the most common ways to network Ubuntu and Windows computers is to configure Samba as a File Server. This section covers setting up a Samba server to share files with Windows clients.

The server will be configured to share files with any client on the network without prompting for a password. If your environment requires stricter Access Controls see [Share Access Control](#)

Port No: 139

Package name: samba

Configuration file: /etc/samba/smb.conf.

Procedure:

1. To install Samba, we can run:

```
$sudo apt update  
$sudo apt install samba
```

2. We can check if the installation was successful by running:

```
$whereis samba
```

3. Now that Samba is installed, we need to create a directory for it to share:

```
$mkdir /home/&lt;username>/sambashare/
```

The command above creates a new folder samba share in our home directory which we will share later. The configuration file for Samba is located at /etc/samba/smb.conf. To add the new directory as a share, we edit the file by running:

```
$sudo nano /etc/samba/smb.conf
```

At the bottom of the file, add the following lines:

```
[sambashare]  
comment = Samba on Ubuntu  
path = /home/username/sambashare  
read only = no  
browsable = yes
```

4. Then press Ctrl-O to save and Ctrl-X to exit from the nano text editor .

5. Now that we have our new share configured, save it and restart Samba for it to take effect:

```
$sudo service smbd restart
```

6. Update the firewall rules to allow Samba traffic:

```
$sudo ufw allow samba
```

SETTING UP USER ACCOUNTS AND CONNECTING TO SHARE

7. Since Samba doesn't use the system account password, we need to set up a Samba password for our user account:

```
$sudo smbpasswd -a username
```

CONNECTING TO SHARE

8. On Ubuntu: Open up the default file manager and click Connect to Server then enter: Connecting to samba via smb://127.0.0.1/sambashare

Note: ip-address is the Samba server IP address and sambashare is the name of the share. You'll be prompted for your credentials. Enter them to connect!

Result:

```
UBUNTU22 Clone Clone Clone [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
Jun 6 15:52
root@UBUNTU: /etc/samba

root@UBUNTU: /home/ubuntu22# ps
PID TTY      TIME CMD
6484 pts/0    00:00:00 su
6485 pts/0    00:00:00 bash
6493 pts/0    00:00:00 ps
root@UBUNTU: /home/ubuntu22# kill 6485
root@UBUNTU: /home/ubuntu22# sudo apt install samba
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  attr ibverbs-providers libcephfs2 libgfs2 libgrpc0 libgfsxdr0 libglusterfs0 libibverbs1 librados2 librdmacm1 libsmbclient
  liburing2 libwbclient0 python3-dnspython python3-gpg python3-markdown python3-pygments python3-requests-toolbelt python3-samba
  python3-tdb samba-common samba-common-bin samba-dsdb-modules samba-libs samba-vfs-modules tdb-tools
Suggested packages:
  python3-sniffio python3-trio python-markdown-doc python-pygments-doc ttf-bitstream-vera ctdb ldb-tools ntp | chrony
  smbldap-tools winbind heimdal-clients
The following NEW packages will be installed:
  attr ibverbs-providers libcephfs2 libgfs2 libgrpc0 libgfsxdr0 libglusterfs0 libibverbs1 librados2 librdmacm1 liburing2
  python3-dnspython python3-gpg python3-markdown python3-pygments python3-requests-toolbelt python3-samba python3-tdb samba
  samba-common samba-common-bin samba-dsdb-modules samba-vfs-modules tdb-tools
The following packages will be upgraded:
  libsmbclient libwbclient0 samba-libs
3 upgraded, 24 newly installed, 0 to remove and 315 not upgraded.
Need to get 18.9 MB of archives.
After this operation, 72.1 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libsmbclient amd64 2:4.15.13+dfsg-0ubuntu1.6 [65.9 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libwbclient0 amd64 2:4.15.13+dfsg-0ubuntu1.6 [266 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-libs amd64 2:4.15.13+dfsg-0ubuntu1.6 [6,276 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-dnspython all 2.1.0-1ubuntu1 [123 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy/main amd64 python3-tdb amd64 1.4.5-2build1 [15.5 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 python3-samba amd64 2:4.15.13+dfsg-0ubuntu1.6 [3,115 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-common all 2:4.15.13+dfsg-0ubuntu1.6 [75.7 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba-common-bin amd64 2:4.15.13+dfsg-0ubuntu1.6 [620 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy/main amd64 tdb-tools amd64 1.4.5-2build1 [26.2 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 samba amd64 2:4.15.13+dfsg-0ubuntu1.6 [1,192 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 attr amd64 1:2.5.1-1build1 [22.6 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/main amd64 libibverbs1 amd64 39.0-1 [69.3 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy/main amd64 ibverbs-providers amd64 39.0-1 [341 kB]
```

```
UBUNTU22 Clone Clone Clone [Running] - Oracle VM VirtualBox
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Jun 6 15:53
root@UBUNTU: /etc/samba

root@UBUNTU:~# ls
snap vboxpostinstall.sh
root@UBUNTU:~# cd /etc
root@UBUNTU: /etc# cd samba
root@UBUNTU: /etc/samba# ls
gdbcommands smb.conf tdb
root@UBUNTU: /etc/samba# vim smb.conf
Command 'vim' not found, but can be installed with:
apt install vim # version 2:8.2.3995-1ubuntu2.13, or
apt install vim-tiny # version 2:8.2.3995-1ubuntu2.13
apt install vim-athena # version 2:8.2.3995-1ubuntu2.13
apt install vim-gtk3 # version 2:8.2.3995-1ubuntu2.13
apt install vim-nox # version 2:8.2.3995-1ubuntu2.13
apt install neovim # version 0.6.1-3
root@UBUNTU: /etc/samba# nano smb.conf
root@UBUNTU: /etc/samba# nano smb.conf
root@UBUNTU: /etc/samba# sudo service smbd restart
Rules updated
Rules updated (v6)
root@UBUNTU: /etc/samba# ipconfig
Command 'ipconfig' not found, did you mean:
  command 'ifconfig' from deb ipmiutil (3.1.0-1)
  command 'ifconfig' from deb net-tools (1.60+git20181103.0eebec6-1ubuntu5)
  command 'iwconfig' from deb wireless-tools (30-pre9-13.1ubuntu4)
Try: apt install <deb name>
root@UBUNTU: /etc/samba# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::baf:b255:e5ba:c37c prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:0e:3c:4f txqueuelen 1000 (Ethernet)
    RX packets 43470 bytes 42915821 (42.9 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 22367 bytes 3987425 (3.9 MB)
    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 1000 (Local Loopback)
    RX packets 2030 bytes 175144 (175.1 KB)
```

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root@UBUNTU: /etc/samba

```
apt install vim # version 2:8.2.3995-1ubuntu2.13, or
apt install vim-tiny # version 2:8.2.3995-1ubuntu2.13
apt install vim-athena # version 2:8.2.3995-1ubuntu2.13
apt install vim-gtk3 # version 2:8.2.3995-1ubuntu2.13
apt install vim-nox # version 2:8.2.3995-1ubuntu2.13
apt install neovim # version 0.6.1-3
root@UBUNTU:/etc/samba# nano smb.conf
root@UBUNTU:/etc/samba# nano smb.conf
root@UBUNTU:/etc/samba# sudo service smbd restart
root@UBUNTU:/etc/samba# sudo ufw allow samba
Rules updated
Rules updated (v6)
root@UBUNTU:/etc/samba# ipconfig
Command 'ipconfig' not found, did you mean:
  command 'lconfig' from deb lpmutils (3.1.8-1)
  command 'ifconfig' from deb net-tools (1.60+git20181103.0eebece-1ubuntu5)
  command 'luconfig' from deb wireless-tools (30-pre9-13.1ubuntu4)
Try: apt install <deb name>
root@UBUNTU:/etc/samba# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::bafb:b255:e5ba:c37c prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:0e:3c:4f txqueuelen 1000 (Ethernet)
    RX packets 43470 bytes 42915821 (42.9 MB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 22367 bytes 3987425 (3.9 MB)
    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 1000 (Local Loopback)
    RX packets 3929 bytes 475411 (475.4 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 3929 bytes 475411 (475.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

root@UBUNTU:/etc/samba# apt install net-tools
Reading package lists... Done
Building dependency tree... Done
```

Type here to search 28°C Light rain 15:54 06-06-2024

UBUNTU22 Clone Clone Clone [Running] - Oracle VM VirtualBox

File Machine View Input Devices Help

Activities Terminal Jun 6 15:55

root@UBUNTU: /etc/samba

```
GNU nano 6.2
smb.conf
; guest ok = no
; browseable = no
; create mask = 0600
; directory mask = 0700

[printers]
comment = All Printers
browseable = no
path = /var/spool/samba
printable = yes
guest ok = no
read only = yes
create mask = 0700

# Windows clients look for this share name as a source of downloadable
# printer drivers
[print$]
comment = Printer Drivers
path = /var/lib/samba/printers
browseable = yes
read only = yes
guest ok = no

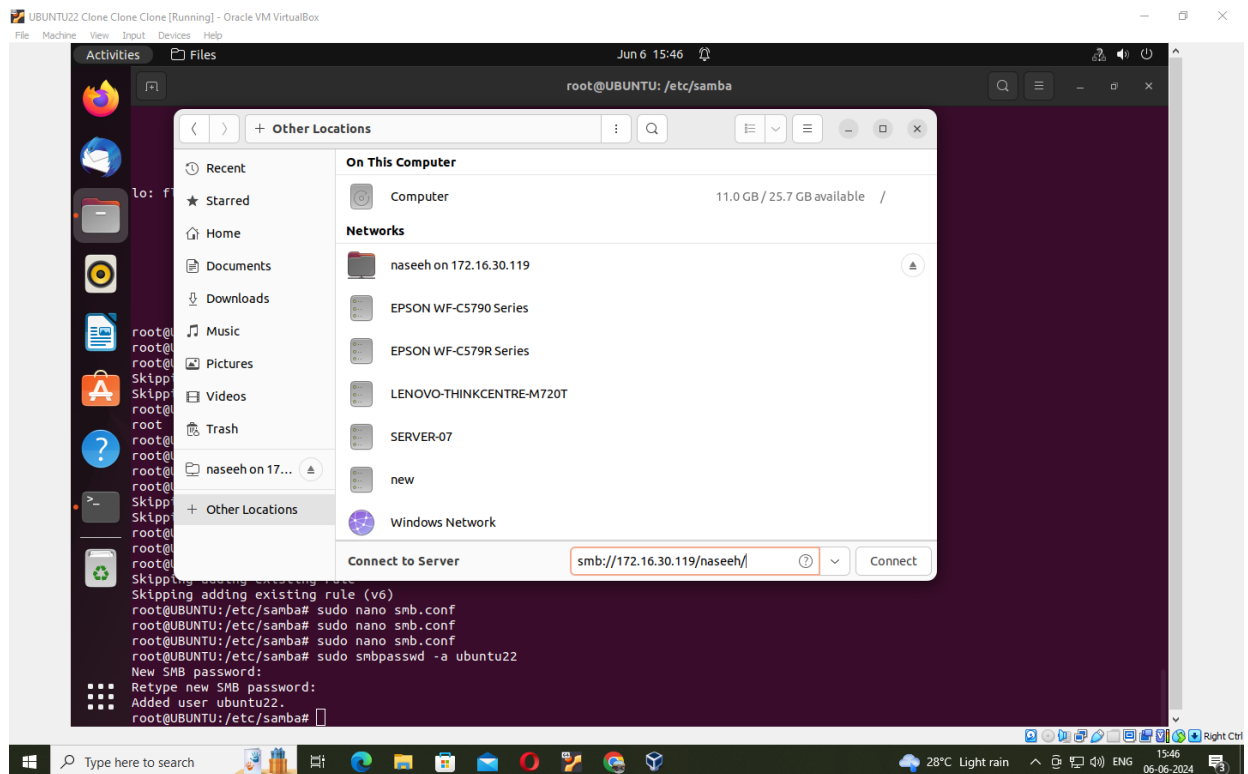
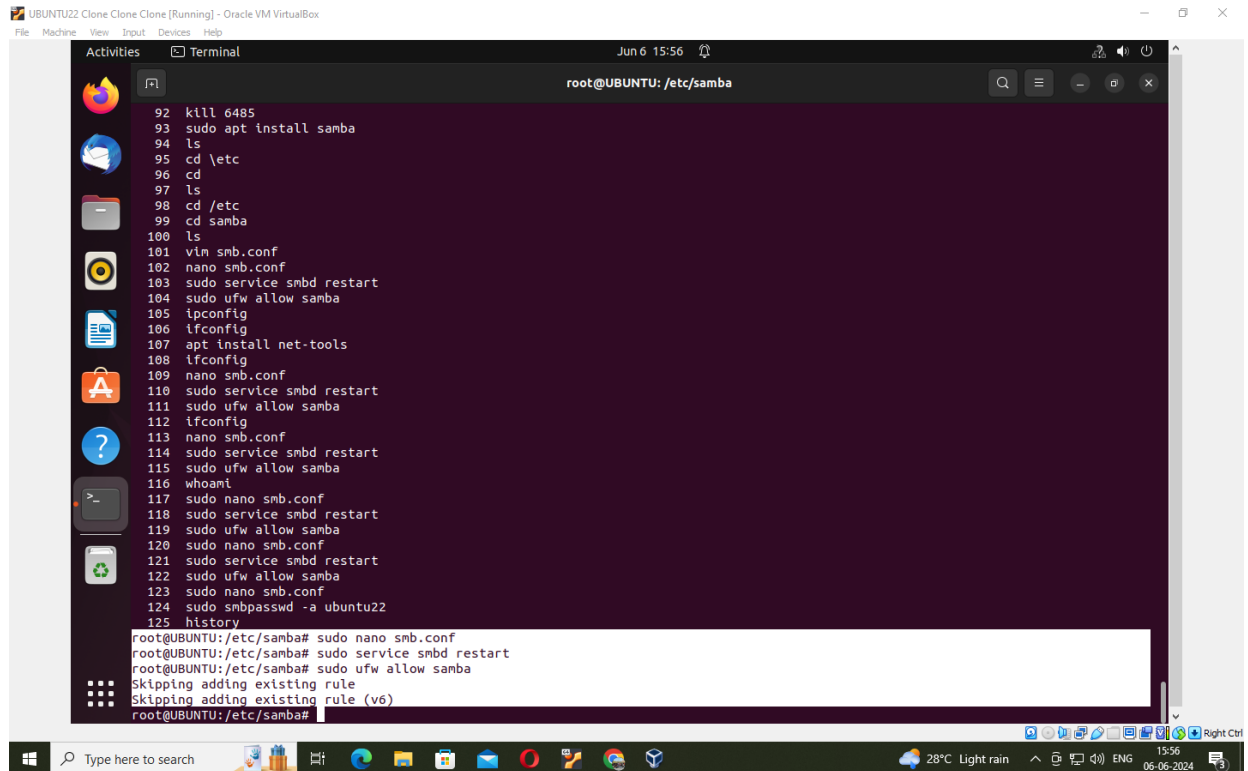
# Uncomment to allow remote administration of Windows print drivers.
# You may need to replace 'lpadmin' with the name of the group your
# admin users are members of.
# Please note that you also need to set appropriate Unix permissions
# to the drivers directory for these users to have write rights in it
; write list = root, @lpadmin

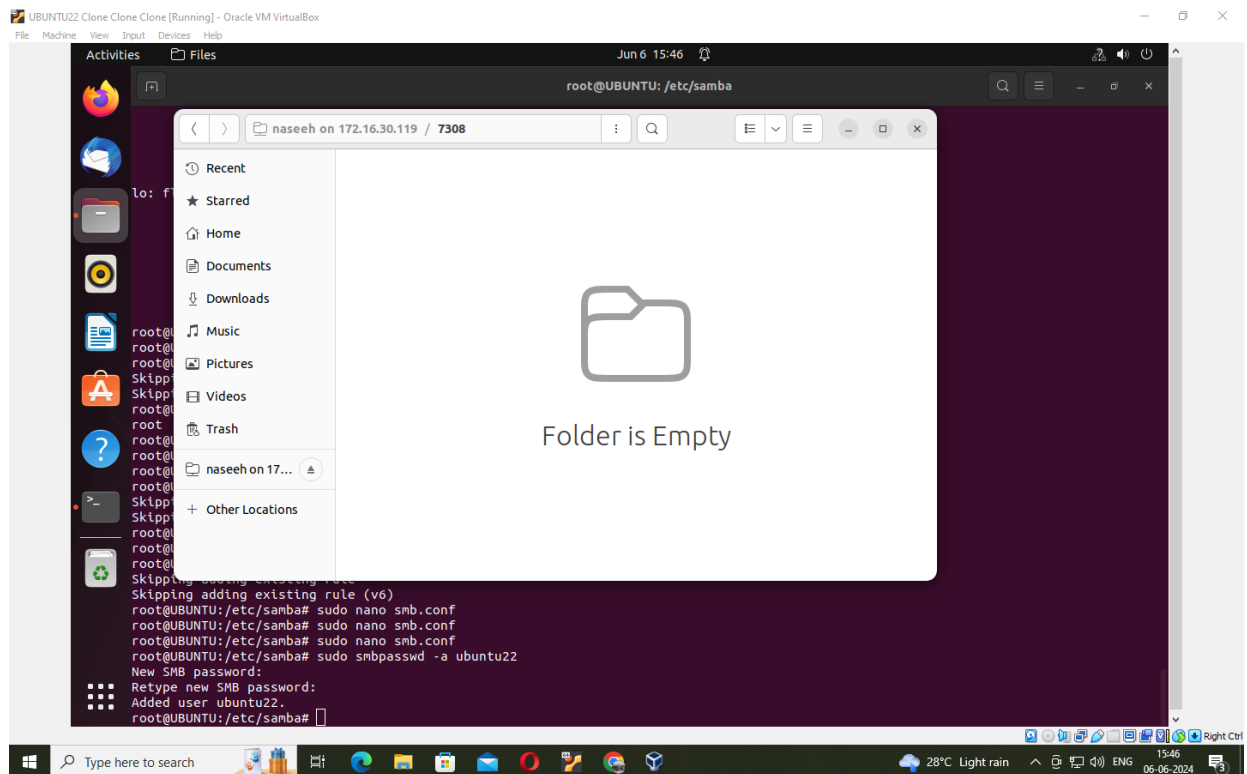
[naseeh]
path = /home/ubuntu22/share

browseable = yes
read only = yes
guest ok = yes
```

Help Write Out Where Is Cut Execute Location M-U Undo M-A Set Mark
Exit Read File Replace Paste Justify G/ Go To Line M-E Redo M-C Copy

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Conclusion:

All the commands have been executed and the output has been obtained successfully.