Configure the File Sharing on Ubuntu Server

We are using Samba for implementing File Sharing.

Samba is a free and open-source. It is based on the SMB/CIFS network file sharing protocol which enables the users to access files, as well as other shared resources.

Here are the steps on how to configure File Sharing on the Server.

Step 1: Install the samba by using the command as shown below:

```
client@client-VirtualBox:~$ sudo apt-get install samba
[sudo] password for client:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  attr ibverbs-providers libcephfs2 libibverbs1 libnl-route-3-200
  libpython-stdlib librados2 python python-crypto python-dnspython python-ldb
  python-minimal python-samba python-tdb python2.7 python2.7-minimal
  samba-common samba-common-bin samba-dsdb-modules samba-vfs-modules
  tdb-tools
Suggested packages:
```

Step 2: After installation, we will open the ports to allow incoming UDP connections.

Run the command as shown below to configure your firewall.

```
client@client-VirtualBox:~$ sudo ufw allow 'Samba'
Rules updated
Rules updated (v6)
client@client-VirtualBox:~$ sudo nano /etc/samba/smb.conf
```

Step 3: Now create a Samba Directory Structure.

First, we will create the /samba directory type and set its group ownership to a samba share. This group is created during the Samba installation.

Run the following commands:

```
client@client-VirtualBox:~$ sudo mkdir /samba
client@client-VirtualBox:~$ sudo chgrp sambashare /samba
```

Step 4: Next, create a user using the standard Linux **useradd** tool as well as set the user password with **smbpasswd** utility.

Use the following commands to create a user named ‘josh’ and his home directory /samba/josh:

```
client@client-VirtualBox:~$ sudo useradd -M -d /samba/josh -s /usr/sbin/nologin
 -G sambashare josh
client@client-VirtualBox:~$ sudo mkdir /samba/josh
```

Step 5: Now, set the ownership of the directory to user josh and group **sambashare**:

```
client@client-VirtualBox:~$ sudo chown josh:sambashare /samba/josh
client@client-VirtualBox:~$ sudo chmod 2770 /samba/josh
```

Step 6: Further, set the user password to add the user account to the Samba database:

Enter and confirm the user password.

```
client@client-VirtualBox:~$ sudo smbpasswd -a josh
New SMB password:
Retype new SMB password:
Added user josh.
```

Step 7: Next, open the Samba configuration file and append a section as shown:

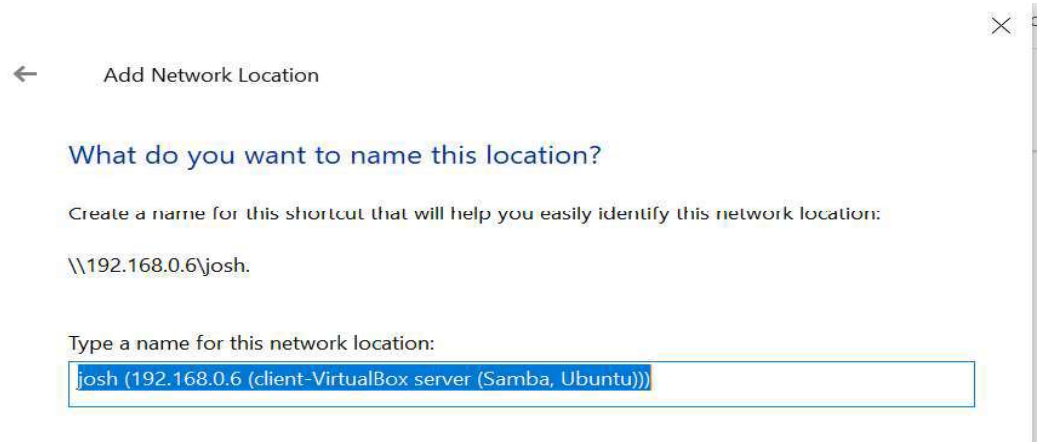
```
[josh]
        path = /samba/josh
        browseable = no
        read only = no
        force create mode = 0660
        force directory mode = 2770
        valid users = josh @sadmin
```

Connecting to the Samba share from Windows 10

Step 1: Open the Windows 10 VM. Then, open the File Explorer. Right-click on “This PC”.

Step 2: Select “Choose a custom network location” and then click “Next”.

Step 3: In “Internet or network address”, enter the address of the Samba share as shown below:



Step 4: Click “Next”. Now, you will be prompted to enter the login credentials of your newly created user as shown below.

Step 5: After entering the credential, the user files will be shown.