Configuring Samba for Linux

A Samba file server provides seamless file sharing across different operating system platforms over a network. This beginner guide will cover the setup of Samba on Ubuntu. (Ubuntu does offer an excellent installation and configuration guide for samba.

Step 1: To install Samba, run the following command in Terminal.

```
sudo apt update
sudo apt-get install samba
```

To verify that the installation of Samba was successful, type in this command in Terminal.

```
whereis samba
```

The output show show as follows:

```
samba: /usr/sbin/samba /usr/lib/samba /etc/samba /usr/share/samba /usr/share/man/man7/samba.7.gz
/usr/share/man/man8/samba.8.gz
```

Step 2: Setting up Samba.
It is now necessary to create a directory to share now that Samba has been successfully installed. This command line below creates a new folder **sambashare** in our home directory which we will share later.

```
mkdir /home/<username>/sambashare/
```

The configuration file for Samba is located at **/etc/samba/smb.conf**. To add the new directory as a share, proceed to edit the file by executing the following command line.

```
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
```

To save the file, press **Ctrl-O** and **Ctrl-X** to exit from the nano text editor.

The **comment** section adds a brief description of the Samba share.
The **path** is the directory of the shared folder.

The **read only** permission allow one to modify the contents of the share folder is only granted when the value of this directive is no.

The **browsable** section is set to yes so that file managers, such as Ubuntu's default file manager, will list this share under "Network" (it could also appear as **browsable**).

For the new shared configuration to take effect, proceed to save it and restart Samba for it to take effect with the following command line.

sudo service smbd restart

Proceed to update the firewall rules to allow Samba traffic:

sudo ufw allow samba

Step 3: Setting up User Accounts and Connecting to Share
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

Special note: The username used must belong to a system account. Otherwise, it will not save.

Connecting to Share

A quick way to find your IP address in Ubuntu is using the **ip a** command in Ubuntu's terminal.

On Ubuntu: Open up the default file manager and click Connect to Server then enter: **ubuntuctn**

On macOS: In the Finder menu, click Go > Connect to Server then enter: **macosctn**

On Windows, open up File Manager and edit the file path to:

\\ip-address\sambashare

Note: ip-address is the Samba server IP address and **sambashare** is the name of the share.

As a final step, you will be prompted to enter your credentials to proceed to connect to the Samba folder.