How to Install and Configure Samba on Debian

November 8, 2023 by Vitux Staff

Samba is a powerful open-source tool that enables Windows-like sharing of files and printers on a network on Linux systems. It allows Linux and Windows computers to coexist and interact on the same network. It is installed on the Linux server where the files to be shared are located. These shared files can then be accessed by any authorized Linux or Windows client on the same network.

In this article, we will explain how to install and configure the Samba server on a Debian system. We will also learn how to access these shared files from Linux or Windows machines.

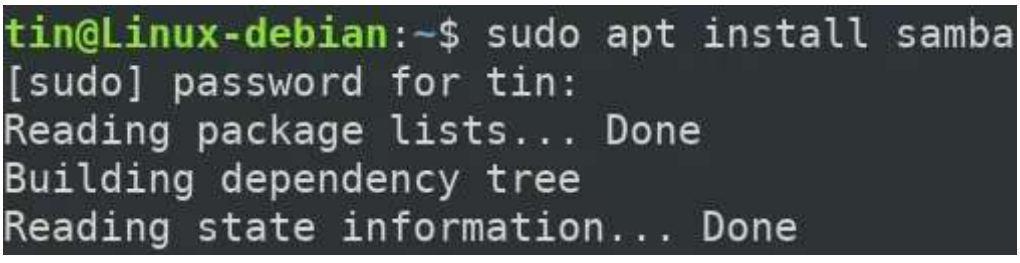
We used Debian 11 to run the commands and procedures mentioned in this article. However, the commands and procedures work almost the same in other Linux distributions.

Installation of Samba on Debian

Launch the Terminal in your Debian OS. Go to the Activities tab in the top left corner of your desktop. Then in the search bar, type the keyword *terminal*. When the search result appears, click on the Terminal icon to open it.

In the Terminal, enter the following command to install the Samba server.

```
$ sudo apt install samba
```



It might ask for confirmation by providing you with a **Y/n** option. Hit **y** to continue the installation process and Samba will be installed on your system.

During installation, it might ask if you want to use WINS settings from DHCP. If your server is using a static IP address, select NO.

Verifying SAMBA installation

To verify the installation, check the status of the samba service "nmbd". This service starts automatically upon the installation of Samba.

```
$ sudo systemctl status nmbd
```

If the samba server is installed and running successfully, you will see the **Active(running)** status.

```
tin@Linux-debian:~$ sudo systemctl status nmbd
[sudo] password for tin:
● nmbd.service - Samba NMB Daemon
   Loaded: loaded (/lib/systemd/system/nmbd.service; enabled; vendor preset: enabled)
   Active: active (running) since Sun 2020-02-16 12:20:41 PST; 40s ago
```

If the service does not start automatically, run this command to start it manually:

```
$ sudo systemctl start nmbd
```

Configuring Samba

Once the installation of the Samba server is completed, it's time now to configure it. The samba configuration file smb.conf is located at the **/etc/samba** directory. In this file, we specify the folder and printers that we want to share along with their permissions and operational parameters. Samba reviews its configuration file after a certain amount of time and updates any changes.

Follow the below steps to perform configurations:

Step 1: Create a directory for sharing files through Samba. This directory will keep the files that need to be shared. Run the following command to create a new directory under the root directory.

```
$sudo mkdir /samba
```

Step 2: Now we will need to edit the configuration file smb.conf. Before editing the configuration file, make sure to create a backup of this file in the same or another directory. Execute the following command to create a backup of smb.conf file.

```
$ sudo cp /etc/samba/smb.conf ~/Documents smb_backup.conf
```

This command will create a backup at the ~/Documents directory

Step 3: Now edit the original configuration file using any text editor like Vim, Nano, or Gedit. We are using here Nano editor:

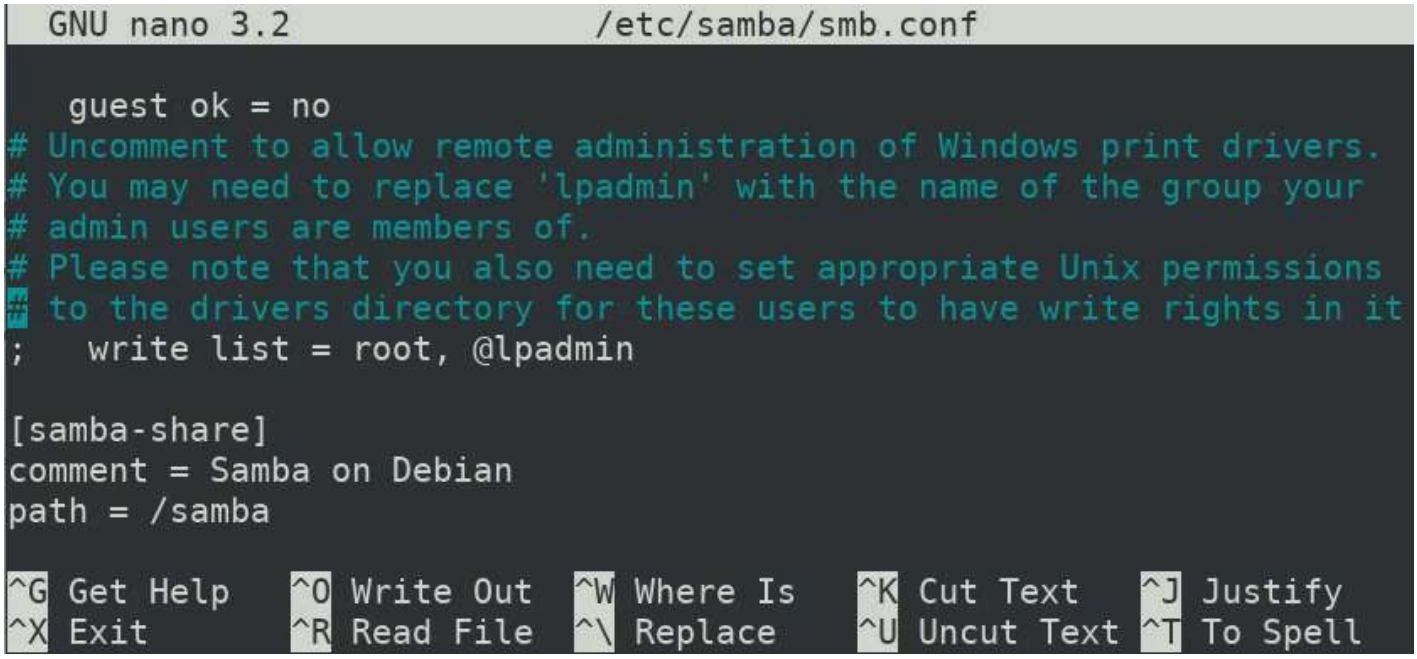
```
$ sudo nano /etc/samba/smb.conf
```

Scroll down to the bottom of the smb.conf and add the following lines:

```
[samba-share]
comment = Samba on Debian
path = /samba
read-only = no
browsable = yes
```

Where

- [samba-share] = name of the samba share
- comment= brief description of the share
- Path= Path of the shared directory.
- Read-only = Set shared directory as readable
- Browsable = to include the share in the share list or not



Once done, press **Ctrl+O and Ctrl+X** simultaneously to save and quit the file.

Setting up User Account

Now we will need the setup user account for samba. The Samba user must have to be the system user and therefore should exist in the **/etc/password** file. If a user does not already exist, you will first need to create it. Otherwise, just execute the command in the Terminal using the following syntax to set up a new password for the user.

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

Restart Samba Service

Once you are done with all configurations and user setup, restart the Samba service by running the following command in Terminal:

```
$ sudo systemctl restart smbd.service
```

Connecting Samba share from Linux machine

Using command line

To connect samba share from the Linux command line, you will need to install the Samba client. It will help to connect samba shares from the command line.

Run the following command in the Terminal to install the Samba client:

```
$ sudo apt install smbclient
```

Once installed, connect to Samba share using the following syntax:

```
$ sudo smbclient //[IP_address or Host_name]/share_name –U samba_user
```

Where

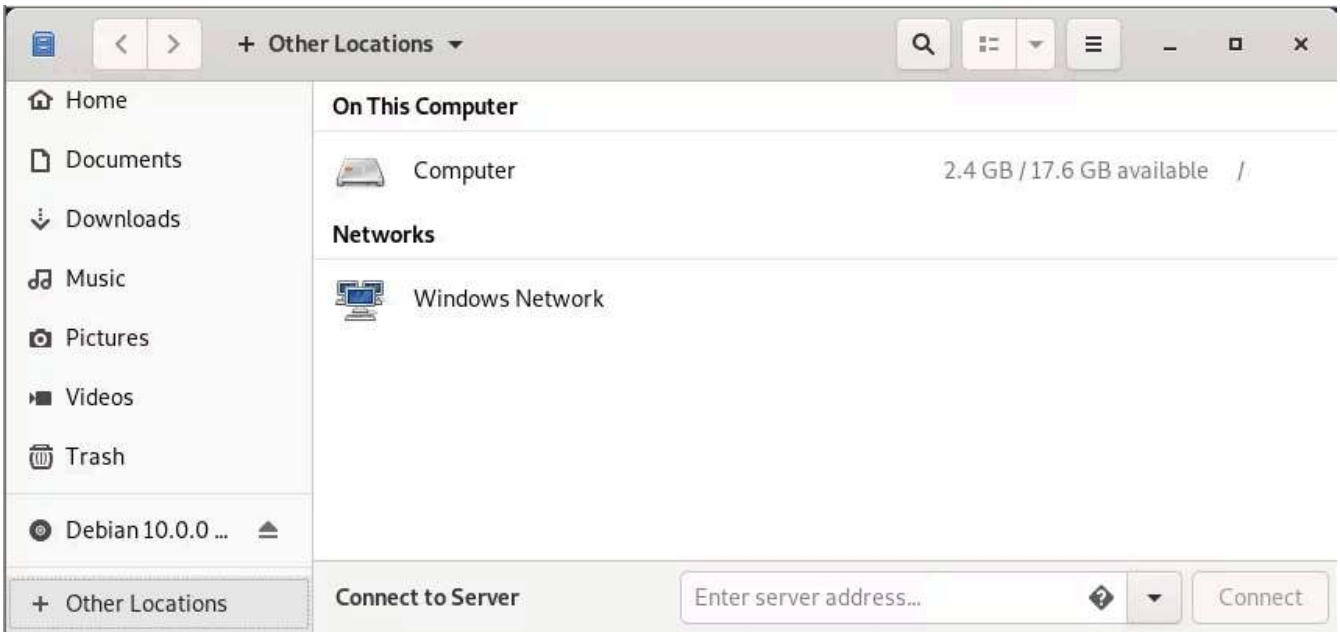
- **[IP_address or Host_name]** is the IP address or the hostname of the Samba server
- **[share_name]** is the name of the Samba shared directory
- **[samba_user]** is the name of the user who has access to the share

Once you enter the command in the terminal, it will ask you for the password. Type the password and hit enter after which you will see samba CLI. To view the supported commands on CLI, type *help* and hit enter.

Access Samba share using the GUI

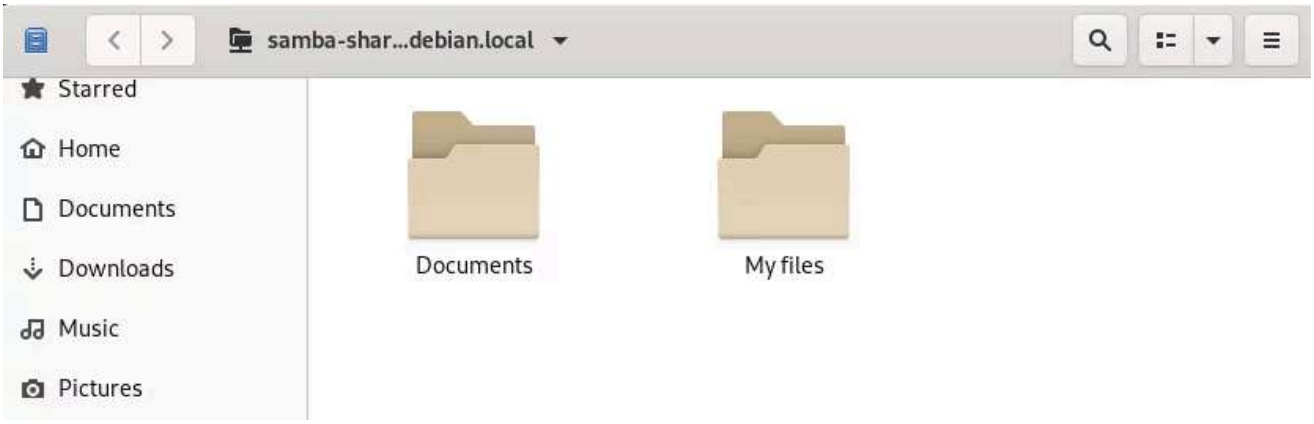
To access Samba share via a graphical user interface, open File Manager. On the bottom of the File Manager window, you will see the **Connect to server** option. In the address bar, type the address of the Samba server in the following format and click Connect.

```
//[IP_address or Host_name]/share_name
```



When the following window appears, select the radio button **Registered user** and Enter username and password in their respective fileds. If you are in the WORKGROUP environment, leave the **Domain** field as default and click **Connect**.

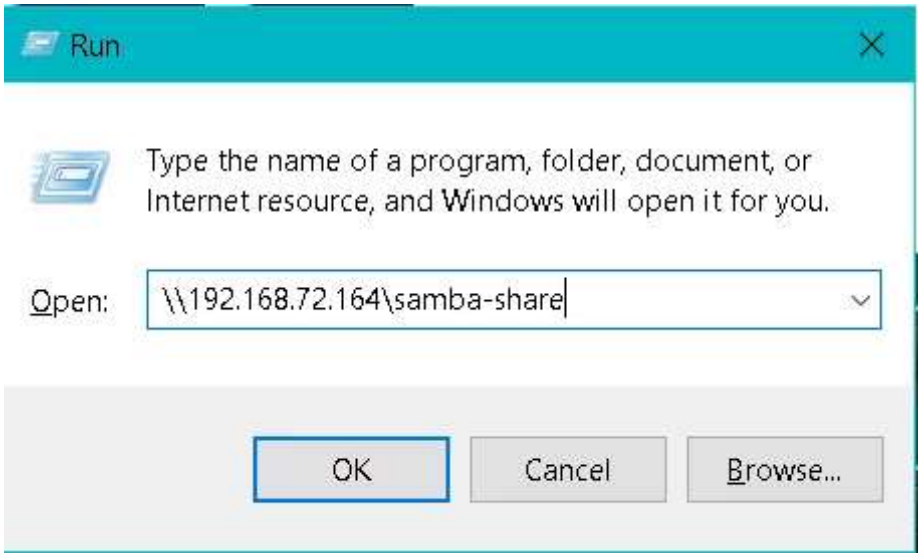
Now you will be able to access shared files on the Samba server.



Connecting to a Samba share from a Windows machine

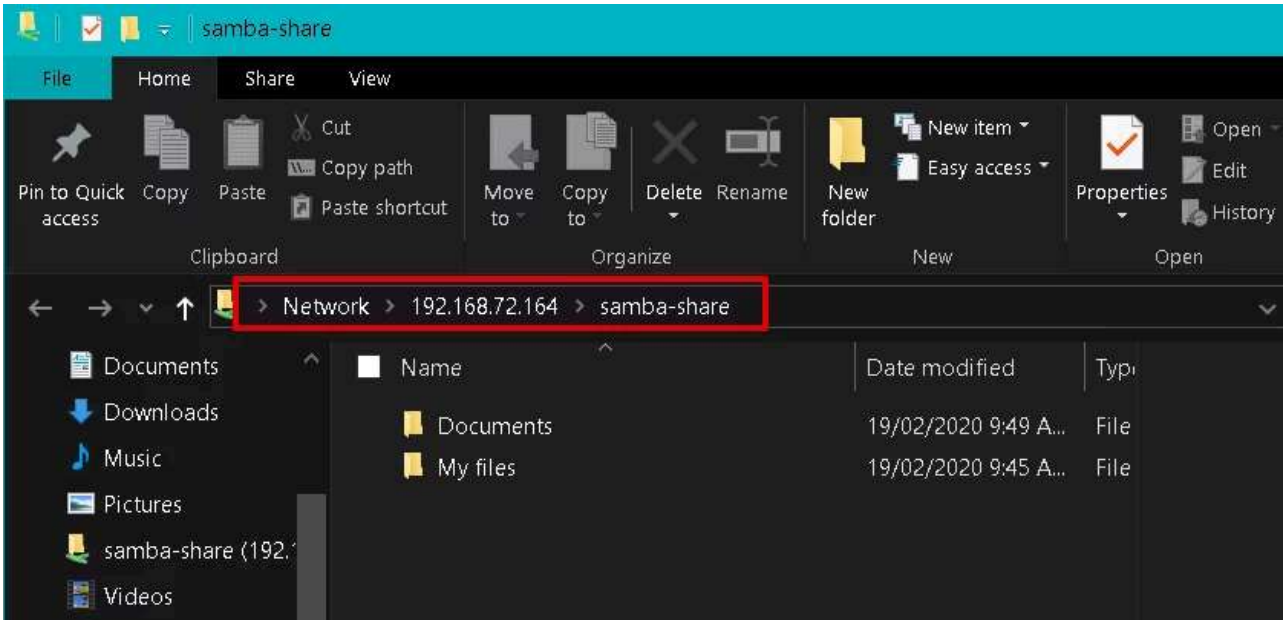
In Windows OS, **Run** utility is mostly used to access shared files over the network. To open the Run utility, use **Windows key+R** shortcut. When the utility opens, enter the Samba share address in the following format and click **OK.**

\\[IP-address]\[share_name]



You will be prompted to provide the Samba user password. Type the password and click **OK**.

Now you will be able to access Samba shared files on your Windows machine.



In this article, we have learned how to install Samba on a Debian 11 system. We have also learned how to connect to the Samba server from Linux and Windows machines for accessing shared directories.