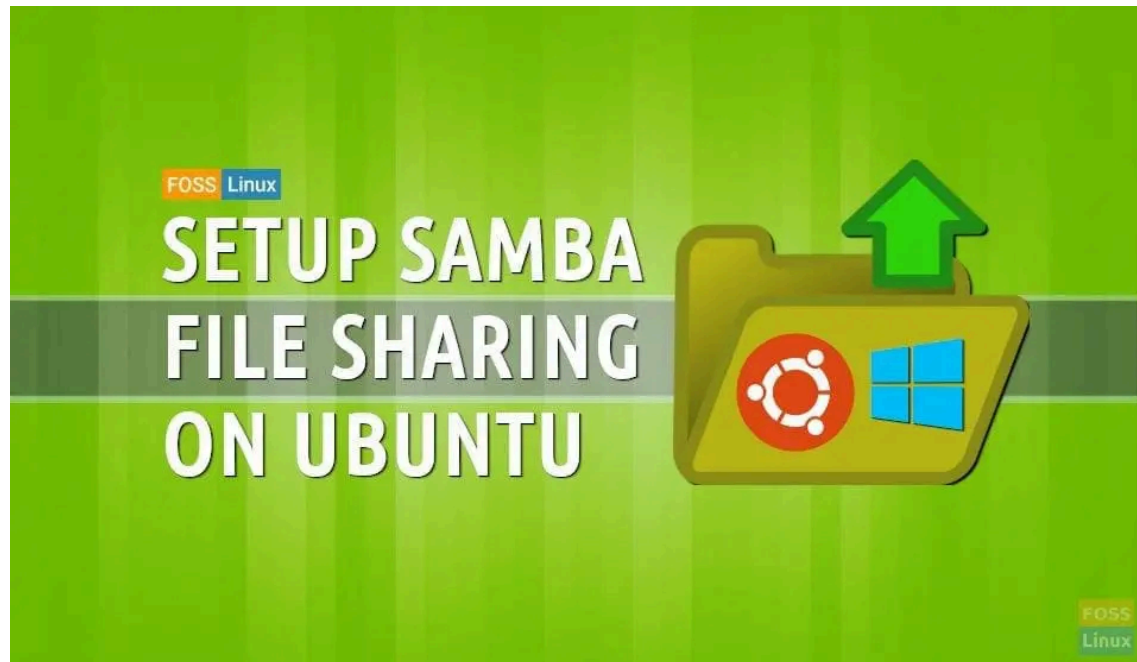


[Home](#) > [Ubuntu](#) > [How to setup Samba File Sharing Server on Ubuntu](#)

How to setup Samba File Sharing Server on Ubuntu

By Hend Adel • **Published:** March 9, 2019 • **Updated:** December 22, 2019

Do you have multiple machines running several operating systems? Then you may face issues while transferring files to and fro between those machines. It is not a great feeling to waste your time troubleshooting file transfer issues.

Hence, we suggest to create a folder and then share it with all the systems connected to the local network. In this tutorial, we walk you through the process of setting up a folder in your local network for being able to share its content across Windows and Linux systems. Its only one-time installation with few little configurations and your files should be ready to share across your different machines.

We shall use a popular tool **Samba**.

Setting up Samba Server to share files across Linux, Windows, and Mac OS X systems

Samba is a opensource tool that can help you to share the files and printer across cross platforms including Linux, Windows, and Mac over a network.

This tutorial guides you on how to install and configure Samba, to enable file sharing between Ubuntu and Windows. However, first we need to prepare our environment as follows:

Step 1 – Setting up Ubuntu and Windows Hosts

On Ubuntu, put your Ubuntu IP and hostname in the `/etc/hosts` file. Also, add a record for the Windows IP and hostname.

```
sudo vi /etc/hosts
```

```
# The following lines are desirable for IPv6 capable hosts
::1      ip6-localhost ip6-loopback
fe00::0  ip6-localnet
ff00::0  ip6-mcastprefix
ff02::1  ip6-allnodes
ff02::2  ip6-allrouters
```

Ubuntu Hosts File

On Windows, put your machine IP and hostname. Also, add a record for your Ubuntu IP and hostname.

```
notepad C:\\Windows\\System32\\drivers\\etc\\hosts
```

```
# localhost name resolution is handled within DNS itself.
#          127.0.0.1      localhost
#          ::1           localhost

192.168.1.8      hendadel-VBox      hendadel-VBox
```

Windows Hosts File

Step 2 – Configure domains

Both machines must be in the same domain, check the default Windows workstation domain using the next command.

```
net config workstation
```

```
C:\\Windows\\system32>net config workstation
Computer name           \\HENDADEL-PC
Full Computer name      HendAdel-PC
User name               Hend Adel

Workstation active on
    NetBT_Tcpip_{6CD63031-B83F-4168-972C-DB146CC2D4C9} {0A0027000021}
    NetBT_Tcpip_{177E57D5-9ADF-43DA-9FF5-9F09C3A99AFF} {78DD08BE905D}

Software version        Windows 7 Home Premium
Workstation domain      WORKGROUP
Logon domain            HendAdel-PC

COM Open Timeout <sec>  0
COM Send Count <byte>   16
COM Send Timeout <msec> 250
The command completed successfully.
```

Windows Current Domain

As you can see from the previous screenshot, the Windows domain is WORKGROUP.

Step 3 – Enable File Sharing on Windows

Enable File Sharing on Windows, open cmd with administrator privileges and run the next two commands.

Also Read

- [What's New in Ubuntu 20.04 LTS "Focal Fossa"](#)

```
netsh advfirewall firewall set rule group="File and Printer Sharing" new enable=Yes
netsh advfirewall firewall set rule group="Network Discovery" new enable=Yes
```

The output should be like below:

```
C:\Windows\system32>netsh advfirewall firewall set rule group="File and Printer
Sharing" new enable=Yes
Updated 48 rule(s).
Ok.

C:\Windows\system32>netsh advfirewall firewall set rule group="Network Discovery
" new enable=Yes
Updated 57 rule(s).
Ok.
```

Enable File-sharing and Network Discovery

Step 4 – Install Samba on Ubuntu

Ensure that your Ubuntu updated.

```
sudo apt-get update
sudo apt-get upgrade
```

Run next command to install Samba on Ubuntu.

```
sudo apt-get install samba samba-common python-glade2 system-config-samba
```

```
Enter Your Command:$ sudo apt-get install samba samba-common python-glade2 system-config-samba
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  linux-headers-4.15.0-29 linux-headers-4.15.0-29-generic linux-image-4.15.0-29-generic linux-modules-4.15.0-29-generic
  linux-modules-extra-4.15.0-29-generic
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  attr ibverbs-providers libcephfs2 libglade2-0 libibverbs1 libnl-route-3-200 libpython-stdlib librados2 libuser1 python python-cairo
  python-crypto python-dnspython python-gobject-2 python-gtk2 python-ldb python-libuser python-minimal python-samba python-tdb
  python2.7 python2.7-minimal samba-common-bin samba-dsdb-modules samba-vfs-modules tdb-tools
Suggested packages:
  python-doc python-tk python-crypto-doc python-gtk2-doc python-gobject-2-dbg python-gpgme python2.7-doc binfmt-support bind9 bind9utils
  ctdb ldb-tools ntp | chrony smbldap-tools winbind heimdal-clients
The following NEW packages will be installed:
  attr ibverbs-providers libcephfs2 libglade2-0 libibverbs1 libnl-route-3-200 libpython-stdlib librados2 libuser1 python python-cairo
  python-crypto python-dnspython python-glade2 python-gobject-2 python-gtk2 python-ldb python-libuser python-minimal python-samba python-tdb
  python2.7 python2.7-minimal samba samba-common samba-common-bin samba-dsdb-modules samba-vfs-modules system-config-samba tdb-tools
0 upgraded, 30 newly installed, 0 to remove and 14 not upgraded.
Need to get 10.7 MB of archives.
After this operation, 62.3 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
```

Install Samba

Check if the Samba installation was successful.

```
whereis samba
```

The output should like below:

```
Enter Your Command:$ whereis samba
samba: /usr/sbin/samba /usr/lib/x86_64-linux-gnu/samba /etc/samba /usr/share/samba /us
r/share/man/man8/samba.8.gz /usr/share/man/man7/samba.7.gz
Enter Your Command:$
```

Verify Samba Installation

Step 5 – Setup Public Shared Folder on Ubuntu

Create a public directory on Ubuntu for sharing.

```
sudo mkdir -p /home/hendadel/sambashare
```

Set the directory permissions so that anyone can read/write to it.

```
Enter Your Command:$ sudo mkdir -p /home/hendadel/sambashare/  
Enter Your Command:$ sudo chmod -R 0775 /home/hendadel/sambashare/  
Enter Your Command:$ sudo chown -R nobody:nogroup /home/hendadel/sambashare/
```

Create a Shared Directory

Step 6 – Copy and setup Config file

Copy Samba default configuration file to be a backup file in case any error happens in the future.

```
sudo cp /etc/samba/smb.conf /etc/samba/smb.conf.backup
```

Edit Samba configuration file

```
sudo vi /etc/samba/smb.conf
```

Add the next lines to Samba configuration file:

Also Read

- [Installing and setting up Plex Media Server on Ubuntu](#)
- [How to install \(and uninstall\) XFCE on Ubuntu](#)
- [How to install Tor Browser in Ubuntu](#)

```
[global]  
workgroup = WORKGROUP  
server string = Samba Server %v  
netbios name = hendadel-VBox  
security = user  
  
[SambaShare]  
Comment = Samba Shared Directory  
path = /home/hendadel/sambashare  
writable = yes  
guest ok = yes  
read only = no  
force user = nobody
```

```
workgroup = WORKGROUP  
netbios name = hendadel-VBox  
security = user  
[SambaShare]  
comment = Samba Shared Directory  
path = /home/hendadel/sambashare  
browsable = yes  
writable = yes  
guest ok = yes  
read only = no  
force user = nobody
```

Edit Samba Config File

Check the Samba configuration file using the next command.

```
testparm
```

The output should be like this:

```
[global]
    dns proxy = No
    security = USER
    server string = %h server (Samba, Ubuntu)
    idmap config * : backend = tdb

[SambaShare]
    comment = Samba Shared Directory
    force user = nobody
    guest ok = Yes
    path = /home/hendadel/sambashare
    read only = No

[printers]
    browseable = No
    comment = All Printers
    create mask = 0700
    path = /var/spool/samba
    printable = Yes

[print$]
    comment = Printer Drivers
    path = /var/lib/samba/printers
```

Samba Configuration File Check

Step 7 – Restart Samba Service.

```
sudo service smbd restart
```

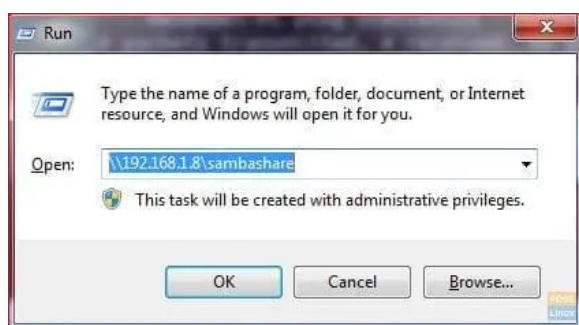
```
Enter Your Command:$ sudo service smbd restart
Enter Your Command:$
```

Restart Samba Services

Step 8 – Access Samba Share on Windows

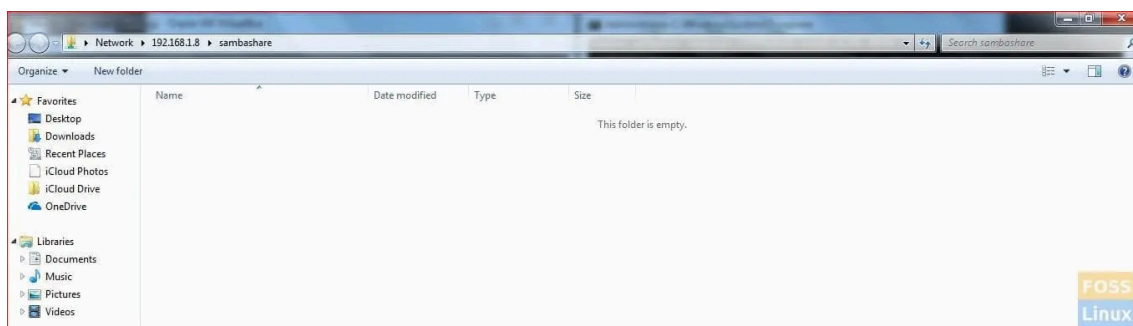
Now from your Windows machine, open run and use the following command to open Ubuntu shared folder.

```
\\192.168.1.8\sambashare
```




Open Shared From Run

The shared folder should like this:



You can now create folders or files inside the shared directory from your Windows machine and check if they created in Ubuntu too.

First, create a test folder from Windows:

| Name | Date modified | Type | Size |
|---|------------------|-------------|------|
|  tst | 3/7/2019 4:21 PM | File folder | |

Create Test Folder

Check the created folder from Ubuntu:

```
Enter Your Command:$ ls -l /home/hendadel/sambashare/
total 4
drwxr-xr-x 2 nobody nogroup 4096 Mar  7 16:21 tst
Enter Your Command:$
```

Check Created Folder

Step 9 – Set Private Shared Directory

Previously, we had a public folder for all network members. What if you need to share a folder with some specific users, or in other words users who have username and password only can access the shared directory.

First, we need to create a group, add users and members to this group and only members of this group should have access to the shared directory.

Create a group:

Also Read

- [How to install and use Oh My Zsh on Ubuntu](#)
- [Unpacking and installing .tar.xz and .tar.gz files on Ubuntu](#)
- [Things to do after installing Ubuntu Desktop](#)

```
sudo addgroup smbgroup
```

```
Enter Your Command:$ sudo addgroup smbgroup
Adding group `smbgroup' (GID 1001) ...
Done.
```

Create a Group

Add your Ubuntu user to the smbgroup.

```
sudo usermod -aG smbgroup hendadel
```

Give a password for the samba user.

```
sudo smbpasswd -a hendadel
```

```
Enter Your Command:$ sudo usermod -aG smbgroup hendadel
Enter Your Command:$ sudo smbpasswd -a hendadel
New SMB password:
Retype new SMB password:
Enter Your Command:$
```

Add user to group

Now, create a directory to share in private.

Set permissions to the previous directory, so that only root and members of smbgroup access the shared directory.

```
sudo chown -R root:smbgroup /home/hendadel/sambaprivate/  
sudo chmod -R 0770 /home/hendadel/sambaprivate/
```

```
Enter Your Command:$ sudo mkdir -p /home/hendadel/sambaprivate/  
Enter Your Command:$ sudo chown -R root:smbgroup /home/hendadel/sambaprivate/  
Enter Your Command:$ sudo chmod -R 0770 /home/hendadel/sambaprivate/  
Enter Your Command:$
```

Change Permissions

Edit Samba configuration file to add the new created directory.

```
sudo vi /etc/samba/smb.conf
```

Add the below:

```
[SambaPrivate]  
path = /home/hendadel/sambaprivate  
valid users = @smbgroup  
guest ok = no  
writable = yes  
browsable = yes
```

The configuration file should be as follows:

```
workgroup = WORKGROUP  
netbios name = hendadel-VBox  
security = user  
[SambaShare]  
comment = Samba Shared Directory  
path = /home/hendadel/sambashare  
browsable = yes  
writable = yes  
guest ok = yes  
read only = no  
force user = nobody  
  
[SambaPrivate]  
path = /home/hendadel/sambaprivate  
valid users = @smbgroup  
guest ok = no  
writable = yes  
browsable = yes
```

Edit Samba Config File

Restart Samba service.

```
sudo service smbd restart
```

Check the Samba configuration file:

```
testparm
```

```
rlimit_max: increasing rlimit_max (1024) to minimum Windows rlimit (16384)
Processing section "[SambaShare]"
Processing section "[SambaPrivate]"
Global parameter log file found in service section!
Global parameter max log size found in service section!
WARNING: The "syslog" option is deprecated
Global parameter syslog found in service section!
Global parameter panic action found in service section!
Global parameter server role found in service section!
Global parameter passdb backend found in service section!
Global parameter obey pam restrictions found in service section!
Global parameter unix password sync found in service section!
Global parameter passwd program found in service section!
Global parameter passwd chat found in service section!
Global parameter pam password change found in service section!
Global parameter map to guest found in service section!
Global parameter usershare allow guests found in service section!
Processing section "[printers]"
Processing section "[print$]"
Loaded services file OK.
```

Restart Service and Check Configurations

Check the two created folders from Windows machine.

Also Read

- [Install NVIDIA Drivers on Ubuntu \(command-line and GUI ways\)](#)
- [Top 10 features in Ubuntu 22.10, and how to upgrade](#)
- [How to fix the "Read-Only File System" error on Ubuntu](#)

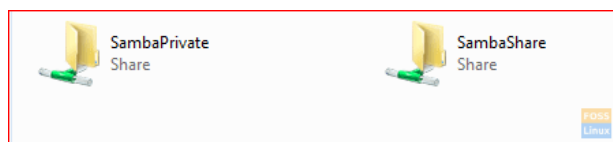
\\192.168.1.8\sambashare

Windows should ask you for username and password like the below screenshot.



Enter Username and Password

After entering your credentials, you should see the shared directories as below.



Check Shared Folders

Finally, I hope you enjoyed this tutorial. Moreover, for any further questions, leave us a comment, and we will be glad to help you.

YOU MAY ALSO LIKE

How to Install PHP on Ubuntu
24.04 LTS:...

How to enjoy cloud gaming with
GeForce Now...

The 6 Best Alternatives to
SketchUp for Ubuntu

How to create a wireless access
point on...

How to safely roll back to a
previous...

How to set permanent DNS
Nameservers in Ubuntu

5 COMMENTS



DANIEL

REPLY

🕒 July 27, 2019 - 4:03 PM

Hey, when I try to access the private file from windows it says I do not have permission.
I created a user in smbgroup
and followed all the steps



SYNGIUN

REPLY

🕒 February 29, 2020 - 3:46 PM

Great guide. Could you include a sample smb.service template?
Would be great since many distros are using systemd.
If am completely misinformed, please correct me and tell me how to get this running automatically at boot.
Currently running Debian Buster on a Raspberry Pi 4B.



KEN OLSON

REPLY

🕒 April 27, 2020 - 6:41 PM

Total newbie here.
I am installing Ubuntu Server for the sole purpose of sharing files. I have been following everything well until:
"sudo apt-get install samba samba-common python-glade2 system-config-samba"
I am getting the message "E: unable to locate package python-glade2" and "E: unable to locate package system-config-samba". whereis samba results in "samba:"
Do I need a different apt repository? Or what?
Thanks,
Ken

KEN OLSON

REPLY

Python2 support

Samba 4.11 will not have any runtime support for Python 2.

If you are building Samba using the '--disable-python' option (i.e. you're excluding all the run-time Python support), then this will continue to work on a system that supports either python2 or python3.

To build Samba with python2 you *must* set the 'PYTHON' environment variable for both the 'configure' and 'make' steps, i.e.

'PYTHON=python2 ./configure'

'PYTHON=python2 make'

This will override the python3 default.

Except for this specific build-time use of python2, Samba now requires

Python 3.4 as a minimum.

Can I simply substitute 3.4 for the 2 in the argument?

**GRUNE****REPLY**

🕒 April 27, 2020 - 10:22 PM

how to adapt this tutorial to include a remote file server?

LEAVE A COMMENT

Your Comment

Name*

Email*

☐ Save my name, email, and website in this browser for the next time I comment.

SUBMIT

ENHANCE YOUR LINUX EXPERIENCE.

FOSS Linux is a leading resource for Linux enthusiasts and professionals alike. With a focus on providing the best Linux tutorials, open-source apps, news, and reviews written by team of expert authors. FOSS Linux is the go-to source for all things Linux.

Whether you're a beginner or an experienced user, FOSS Linux has something for everyone.

[More About Us >](#)

MORE FROM US

- > Ubuntu (312)
- > Learn Linux (259)

| | |
|--------------------|-------|
| > Beginner's Guide | (182) |
| > Terminal Tuts | (168) |
| > Featured | (125) |
| > Server | (99) |
| > Linux Mint | (98) |
| > Fedora | (93) |

POLICIES

[About Us](#)[Contact Us](#)[Privacy Policy](#)[Terms of Use](#)[Cookies](#)[Copyright](#)

FOLLOW US



SUBSCRIBE

[✉ Newsletter Subscribe](#)

©2016-2023 **FOSS LINUX**

A PART OF VIBRANT LEAF MEDIA COMPANY.

ALL RIGHTS RESERVED.

"Linux" is the registered trademark by Linus Torvalds in the U.S. and other countries.