

? Sharing a Folder on Debian Linux via Samba

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Applies To: Debian 10+, Ubuntu, other Debian-based distributions

Use Case: Share a local folder over the network for access from Windows, macOS, or Linux machines.

? Prerequisites

- Debian-based Linux system
 - `sudo` privileges
 - Network connectivity to target devices
-

? Step 1: Install Samba

Update the system and install Samba:

```
bash
sudo apt update
sudo apt install samba
```

? Step 2: Create a Shared Directory

Choose or create the folder to share. Example:

```
bash
sudo mkdir -p /srv/share
sudo chown nobody:nogroup /srv/share
sudo chmod 0775 /srv/share
```

This creates a public share folder with loose permissions (for anonymous access).

?? Step 3: Configure Samba

Edit the Samba configuration file:

```
bash
```

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

Add the following to the bottom of the file:

```
ini
```

```
[PublicShare]
  path = /srv/share
  browseable = yes
  read only = no
  guest ok = yes
  force user = nobody
```

“ `Tip:` `force user = nobody` ensures files are written as the `nobody` user, preventing permission issues.

? Step 4: Restart Samba Services

```
bash
```

```
sudo systemctl restart smbd
```

? Step 5: Open Firewall (If Enabled)

For systems using `ufw` (Uncomplicated Firewall):

```
bash
```

```
sudo ufw allow 'Samba'
```

Or manually:

```
bash
```

```
sudo ufw allow 137,138/udp
sudo ufw allow 139,445/tcp
```

? Step 6: Access the Share

From a Windows or Linux machine:

- Open File Explorer or file manager.
- Go to: `\\<your-debian-ip>\PublicShare`

You should see the shared folder contents.

? Optional: Secure with Username/Password

To restrict access:

1. Disable guest access:

ini

```
guest ok = no
```

2. Create a Samba user:

bash

```
sudo smbpasswd -a <your-linux-user>
```

3. Restart Samba:

bash

```
sudo systemctl restart smb
```

You'll now need a username/password to access the share.

? Troubleshooting

Problem	Fix
Can't connect to share	Check firewall, Samba config syntax, and network IPs
Files not writable	Check folder permissions and <code>force user</code> setting
Authentication issues	Ensure Samba user exists and password is set via <code>smbpasswd</code>

? Related

- `/etc/samba/smb.conf`: Samba main configuration file
- `sudo testparm`: Validates Samba config
- `sudo smbstatus`: Shows active connections

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