□□ Sharing a Folder on Debian Linux via Samba

Last Updated: 2025-06-01
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 smbd`

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 `force user` setting
Authentication issues	Ensure Samba user exists and password is set via `smbpasswd`

□□ Related

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

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