

# Mounting Shared Folders on Linux

To finish pulling notes from [NAS://tin/Crashplan/](#)

```
===== Setup
# tested on lubuntu 13.10, 16.04.2 desktop edition

#sudo apt-get install smbclient
#smbclient -L //server -U user # list shares, theres is a cifs-utils
version now named (?)
#smbclient //server/share -U user # directly connect

# you must have a Linux user account that matches on the NAS
sudo apt-get install cifs-utils
cd ~
mkdir myra
# mounts read-only for read/write add --rw
sudo mount -t cifs //192.168.0.5/myra ~/myra/ -o username=tin.pham,noexec
Settled on,
adding user phantom to folder in synology.

# to mount read write you must have corresponding users on your system and
nas
# you must logged in as that user who has sudo
# find the uid and gid using the command id,
id

# now you can mount using the uid, gid and -w to write
sudo mount -t cifs //192.168.0.5/torrents -o
username=setupadmin,noexec,uid=1000,gid=1000 -w
===== Initial Connections

# From your client system see what mounts are available on target system
(this is the system sharing the data)
# You can specify a user and verify your password works
smbclient -L //192.168.0.5 -U tin.pham
Enter tin.pham's password:
Domain=[WORKGROUP] OS=[Unix] Server=[Samba 4.1.18]
  Sharename      Type            Comment
  -----      -
IPC$            IPC            IPC Service ()
tin.archive     Disk
tin             Disk
rsync          Disk
pham           Disk
NetBackup      Disk            System default shared folder
myra           Disk
guest.public   Disk            Available to all and guests.
home           Disk            home
Domain=[WORKGROUP] OS=[Unix] Server=[Samba 4.1.18]
  Server          Comment
```

```
-----  
DISKSTATION  
Workgroup          Master  
-----  
WORKGROUP          W7KITCHEN
```

===== Troubleshoot

```
== Connect Directly using Samba to see if response is workig  
# You may need to install smbclient first.  
# Directly connect  
smbclient //192.168.0.5/guest.public -U tin.pham  
smb: \>
```

```
# Run ls to see results and help to see list of commads  
smb: \>ls
```

== Try Using Local Directory

```
cd ~  
mkdir guest.public  
sudo mount -t cifs //192.168.0.5/guest.public/ ~/guest.public/ -o  
username=tin.pham,noexec  
===== List of mount  
# Backing Up  
su - phantom  
sudo mount -t cifs //192.168.0.5/guest.public /data/guest.public/ -o  
username=phantom,noexec  
sudo mount -t cifs //192.168.0.5/myra /data/myra/ -o  
username=phantom,noexec  
sudo mount -t cifs //192.168.0.5/pham /data/pham/ -o  
username=phantom,noexec  
sudo mount -t cifs //192.168.0.5/rsync /data/rsync/ -o  
username=rsync,noexec # remember to use different password  
sudo mount -t cifs //192.168.0.5/tin.archive /data/tin.archive -o  
username=phantom,noexec
```

# For writing

```
su - tin.pham  
sudo mount -t cifs //192.168.0.5/guest.public /mnt/guest.public/ -o  
username=tin.pham,noexec # Torrents
```

# List samba cifs mounts

```
sudo mount -t cifs
```

```
# List all mounts with more details
sudo mount -v
```

This [CIFS Utils and Samba](#) wikipedia article has lots good points,

- CIFS is the extension of the SMB protocol.
- In-kernel CIFS filesystem is generally the preferred method for mounting SMB/CIFS shares on Linux.
- The cifs-utils package is not part of Samba, although they were originally included with it.

apt-cache policy cifs-utils - see version installed

## This is More Personal Just Dumping

Crashplan mounts using user phantom which only has read access,

```
sudo mount -t cifs //192.168.0.5/guest.public /data/guest.public/ -o
username=phantom,noexec
sudo mount -t cifs //192.168.0.5/myra /data/myra/ -o
username=phantom,noexec
sudo mount -t cifs //192.168.0.5/pham /data/pham/ -o
username=phantom,noexec
sudo mount -t cifs //192.168.0.5/rsync /data/rsync -o
username=phantom,noexe
sudo mount -t cifs //192.168.0.5/tin.archive /data/tin.archive -o
username=phantom,noexec
```

CrashPlan Client

## Errors

Got this error on a fresh Ubuntu Desktop 16.05.2 LTS system

```
sudo mount -t cifs //192.168.0.5/guest.public/ ~/guest.public/ -o
username=tin.pham,noexec
mount: //192.168.0.5/guest.public/ is write-protected, mounting read-only
mount: cannot mount //192.168.0.5/guest.public/ read-only
```

Answer is that you must instal cifs-utils which mount command then hooks into. Not very clear at all.

## Auto Mounting Modifying Fstab

Create credential file for id of user of target mount in /root/ using root. Change to remove read by "other".

/etc/fstab

```
//192.168.0.5/guest.public /data/guest.public/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
```

This is what worked for on my server with some finicking... I'll write this up later,

```
# Mount NFS drive for Plex serveradmin
192.168.0.5:/volume1/guest.public /opt/mnt/guest.public/ nfs4
```

## Working System Example

And this is now my working system looked,

Make directories in a my own data folder as my normal user,

```
cd /data/
mkdir guest.public myra pham tin.archive rsync pham.encrypted
```

Get the uid and gui of your account which in my case is uid=2000 and gid=50

```
cat /etc/passwd | grep 2000
tin.pham:x:2000:50:Support Tin Pham:/home/tin.pham:/bin/bash
```

/etc/fstab file ended up looking.. I'm using a more privileged account here, but have specified to mount using ro = read only. Thegid= and uid=,

```
//192.168.0.5/guest.public /data/guest.public/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
//192.168.0.5/myra /data/myra/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
//192.168.0.5/pham /data/pham/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
//192.168.0.5/tin.archive /data/tin.archive/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
//192.168.0.5/rsync /data/rsync/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
//192.168.0.5/pham.encrypted /data/pham.encrypted/ cifs
uid=2000,gid=50,credentials=/root/.cifscredentials,ro 0 0
```

Reboot and if all things work those directories will now be mounted with the NAS data.

## References

Automount network drive on startup - <https://ubuntuforums.org/showthread.php?t=1806455>