

Synchronize cloud storage services on Linux with Rclone

Rclone has the same function as Rsync but can be used for many cloud storage. It is a Terminal-based utility that synchronizes folders and files on local systems and on other cloud storage services.

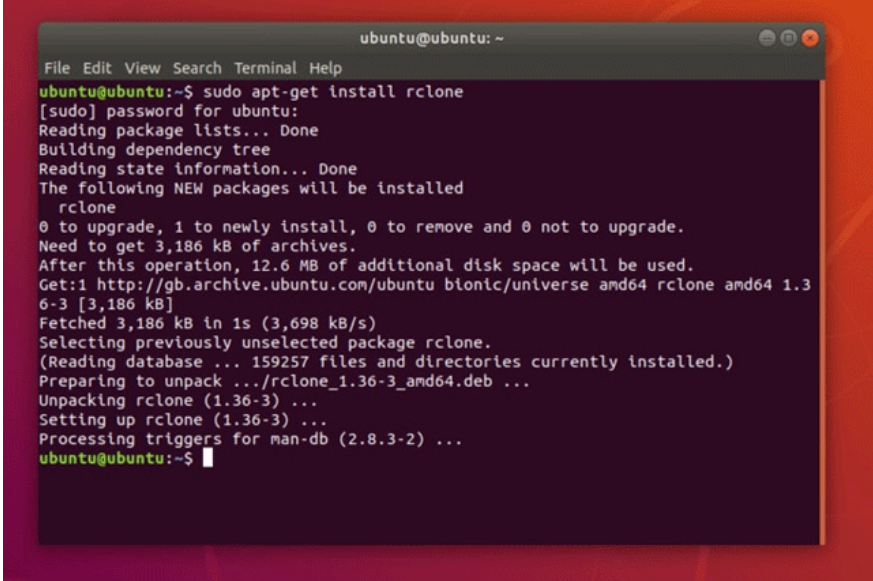
Copying data between servers is the main job of the system administrator. Copy data must be accurate, error-free and accessible when necessary. Previously, administrators used Rsync to copy data between servers through Terminal but with the advent of cloud computing and cloud storage, data was stored on many different services with Hundreds of users, this is where the Rclone tool works.

Rclone has the same function as Rsync but can be used for many cloud storage. It is a Terminal-based utility that synchronizes folders and files on local systems and on other cloud storage services like Google Drive, OneDrive, Dropbox, Amazon, etc.

Set up Rclone

You can install Rclone from the website or from the repository of the main Linux distributions. This tutorial uses Ubuntu distro and installs Rclone via Terminal.

```
sudo apt install rclone
```

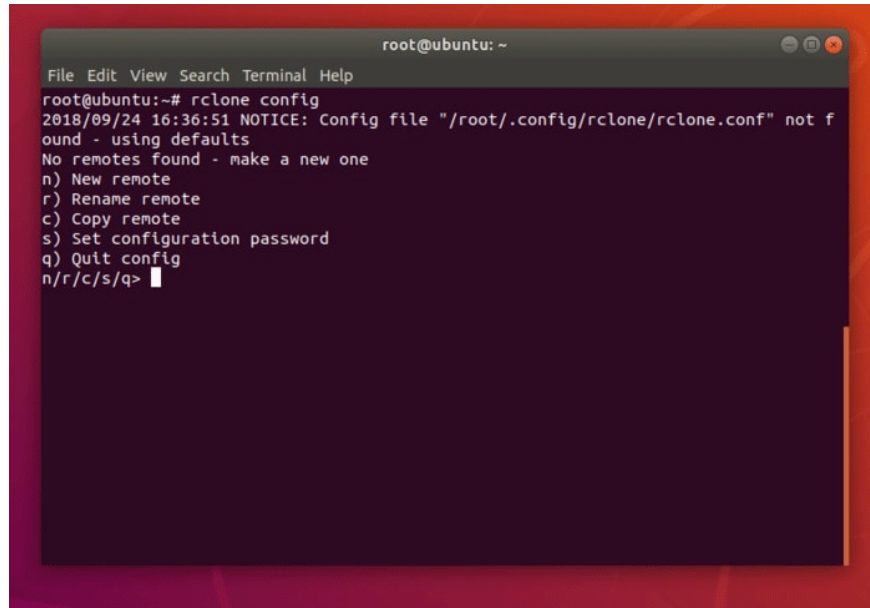
A terminal window titled 'ubuntu@ubuntu: ~' showing the command 'sudo apt-get install rclone' and its output. The output includes package list reading, dependency tree building, and the installation of rclone (1.36-3) from the Ubuntu repository. The terminal text is as follows:

```
ubuntu@ubuntu: ~  
File Edit View Search Terminal Help  
ubuntu@ubuntu:~$ sudo apt-get install rclone  
[sudo] password for ubuntu:  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following NEW packages will be installed  
  rclone  
0 to upgrade, 1 to newly install, 0 to remove and 0 not to upgrade.  
Need to get 3,186 kB of archives.  
After this operation, 12.6 MB of additional disk space will be used.  
Get:1 http://gb.archive.ubuntu.com/ubuntu bionic/universe amd64 rclone amd64 1.36-3 [3,186 kB]  
Fetched 3,186 kB in 1s (3,698 kB/s)  
Selecting previously unselected package rclone.  
(Reading database ... 159257 files and directories currently installed.)  
Preparing to unpack .../rclone_1.36-3_amd64.deb ...  
Unpacking rclone (1.36-3) ...  
Setting up rclone (1.36-3) ...  
Processing triggers for man-db (2.8.3-2) ...  
ubuntu@ubuntu:~$
```

After installation, users need to make some changes by entering the following command:

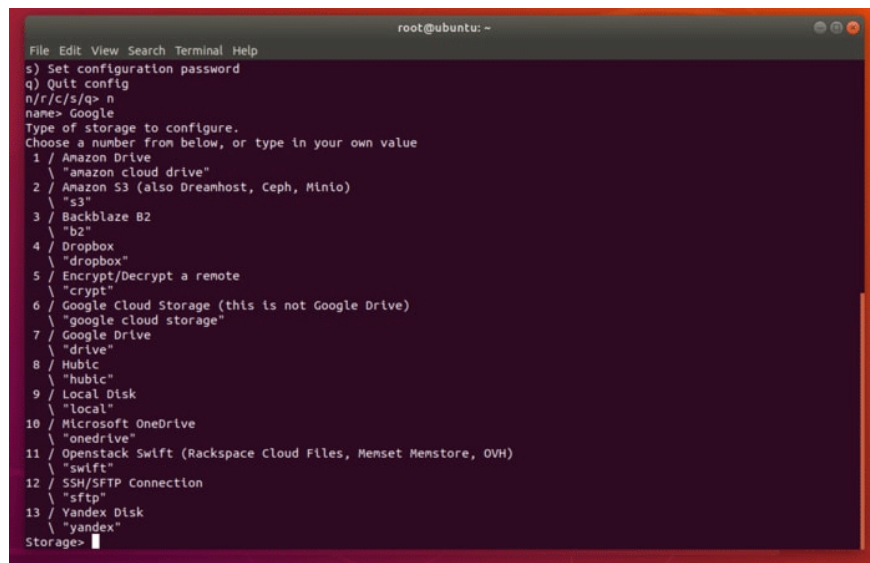
rclone config

You will see the following screen appear:



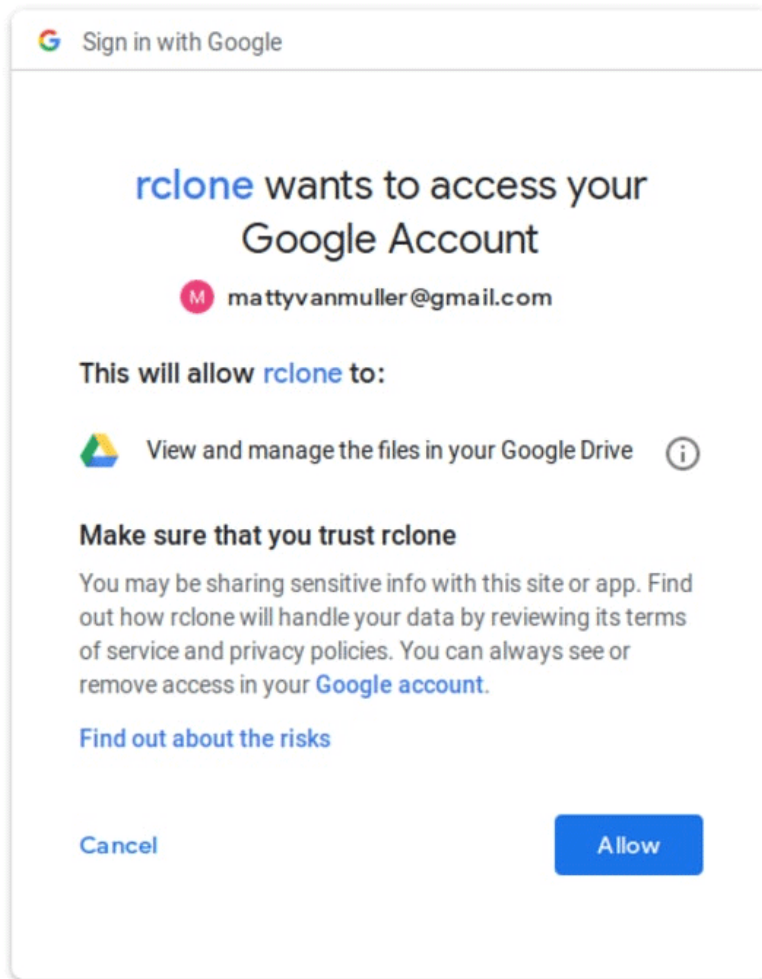
```
root@ubuntu: ~
File Edit View Search Terminal Help
root@ubuntu:~# rclone config
2018/09/24 16:36:51 NOTICE: Config file "/root/.config/rclone/rclone.conf" not found - using defaults
No remotes found - make a new one
n) New remote
r) Rename remote
c) Copy remote
s) Set configuration password
q) Quit config
n/r/c/s/q> █
```

It has many options that make users feel vague, but here we just need a new connection, so just choose **n** . Terminal will ask you to choose the hosting service to use. In this example use Google Drive.



```
File Edit View Search Terminal Help
s) Set configuration password
q) Quit config
n/r/c/s/q> n
name> Google
Type of storage to configure.
Choose a number from below, or type in your own value
 1 / Amazon Drive
   \ "amazon cloud drive"
 2 / Amazon S3 (also Dreamhost, Ceph, MInfo)
   \ "s3"
 3 / Backblaze B2
   \ "b2"
 4 / Dropbox
   \ "dropbox"
 5 / Encrypt/Decrypt a remote
   \ "crypt"
 6 / Google Cloud Storage (this is not Google Drive)
   \ "google cloud storage"
 7 / Google Drive
   \ "drive"
 8 / Hubic
   \ "hubic"
 9 / Local Disk
   \ "local"
10 / Microsoft OneDrive
   \ "onedrive"
11 / Openstack Swift (Rackspace Cloud Files, Menset Menstore, OVH)
   \ "swift"
12 / SSH/SFTP Connection
   \ "sftp"
13 / Yandex Disk
   \ "yandex"
Storage> █
```

Rclone will then ask if you want to set it up automatically, select **Yes** if you want to set it up automatically and click on the link that appears to log in to the service and authorize Rclone to view and manage the service.



The terminal will notify you when it is successful and ask if you want to continue and provide access information, then encrypt the connection and password.

```
root@ubuntu: ~  
File Edit View Search Terminal Help  
y) Yes this is OK  
e) Edit this remote  
d) Delete this remote  
y/e/d> y  
Current remotes:  


| Name   | Type  |
|--------|-------|
| ====   | ====  |
| Google | drive |

  
e) Edit existing remote  
n) New remote  
d) Delete remote  
r) Rename remote  
c) Copy remote  
s) Set configuration password  
q) Quit config  
e/n/d/r/c/s/q> s  
Your configuration is not encrypted.  
If you add a password, you will protect your login information to cloud services.  
a) Add Password  
q) Quit to main menu  
a/q> a  
Enter NEW configuration password:  
password:  
Confirm NEW configuration password:  
password:  
Password set  
Your configuration is encrypted.  
c) Change Password  
u) Unencrypt configuration  
q) Quit to main menu  
c/u/q> █
```

With encryption settings, you can type the following command to list files in your cloud service. Note, you need to use the selected storage name, in this case Google. You can set it to anything you want, but it's easy to remember that you should name your company or brand, especially when there are multiple cloud storage accounts.

```
rclone ls Google:
```

This command will display all the files you have. If there are multiple files, you should search by ink, using the following command:

```
rclone lsd Google:
```

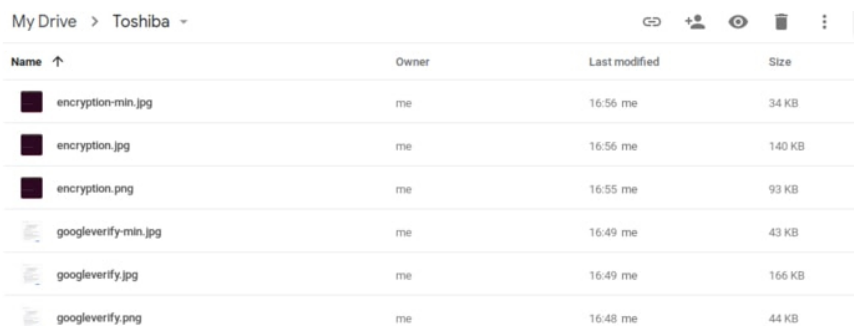
Use Rclone

You can now copy the file to the cloud memory by entering the following commands into Terminal:

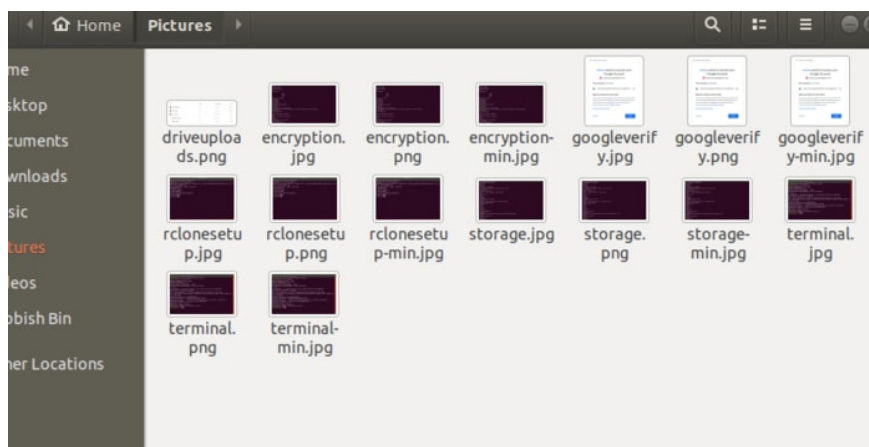
```
rclone copy / path / to Google: Foldername
```

In this example, we will copy the screenshot for this tutorial into a folder called '**Toshiba**' in Google Drive. The screenshot below shows local files and files in the cloud memory. Change the **path / to** command **to** the folder you want to copy. Here is the command for this example:

```
rclone copy home / ubuntu / Pictures Google: Toshiba
```



Name ↑	Owner	Last modified	Size
encryption-min.jpg	me	16:56 me	34 KB
encryption.jpg	me	16:56 me	140 KB
encryption.png	me	16:55 me	93 KB
googleverify-min.jpg	me	16:49 me	43 KB
googleverify.jpg	me	16:49 me	166 KB
googleverify.png	me	16:48 me	44 KB



Rclone can also delete files and folders. Rclone provides a fast and relatively safe way for users to back up the required files from Terminal

I wish you all success!

See more:

1. 6 safe ways to backup and restore data on Windows 7 and Windows 8
2. Instructions for basic steps to backup Outlook data
3. How to backup Facebook data to your computer

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