

Dropbox on NeSI or any Linux host via SSH

For the instruction here, you need Dropbox UC Enterprise account. [Storage | University of Canterbury](#)

UPDATE (04 Apr 2023) : Note that QuakeCoRE's Cybershake archiving is now processed by the in-house-developed automation tool (https://github.com/ucgmsim/cs_dropbox_sync) which uses rclone under the hood. We keep this page for other UC researchers who might find this information interesting.

Already have an access code

If you already have an access code, skip "Getting an Access Token" part. Just place it at \$HOME/.config/rclone/rclone.conf.

This file should look like

```
[dropbox]
type = dropbox
client_id = 
client_secret = 
token = {"access_token":"XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX","token_type": "bearer","expiry":"0001-01-01T00:00:00Z"}
```

Make sure you load rclone module.

```
module add rclone
```

Getting an Access Token

You need `rclone` on NeSI/Hypocentre (or whatever Linux box). On NeSI, you can access it with module command on Mahuika (doesn't work on Maui)

```
module add rclone
```

If you are on Nurion or other Linux host, you can download rclone from <https://rclone.org/downloads/> . I tested Linux zip version, and it worked perfectly.

You will be accessing Dropbox via SSH terminal, not via Webbrowser as you do normally, so you need to configure it and get an access code.

Follow the instruction in this page : [Dropbox \(rclone.org\)](https://www.dropbox.com/rclone.org) - The documentation can be a little bit outdated. Follow the default values until you are asked if you wish to use "autoconfig" - Say **No**

This will tell you to execute a command ``rclone authorize "dropbox"`` on a computer that has both web browser and rclone.

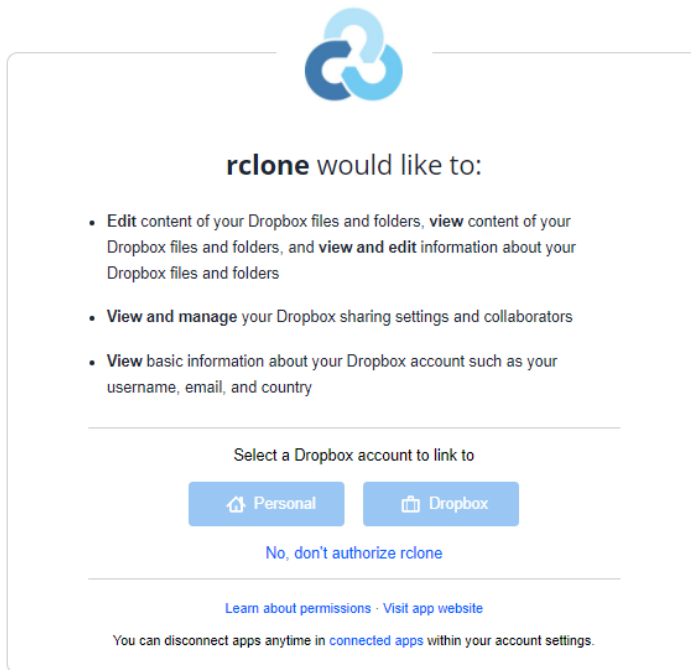
```
y/n> n
For this to work, you will need rclone available on a machine that has
a web browser available.

For more help and alternate methods see: https://rclone.org/remote\_setup/

Execute the following on the machine with the web browser (same rclone
version recommended):

    rclone authorize "dropbox"
```

Install rclone on **your local computer**: This step needs a webbrowser so that you can log in to Dropbox and retrieve access code. Open a command prompt (on Windows) or a terminal (on Mac/Linux), enter `rclone authorize "dropbox"`. This will open a web browser and show you an authorization screen. Select Dropbox (I think it is meant to be Enterprise).



The next page of your webbrowser will say something like "Success" (Sorry, no screenshot). This page itself has no important information. Go back to the terminal (or command prompt screen), and find your code. It says Paste the following into your remote machine.....End paste. Copy that.

```
cmd Select Command Prompt
Volume in drive P is UsersC$
Volume Serial Number is 009A-9A03

Directory of P:\Downloads\rclone-v1.56.2-windows-amd64\rclone-v1.56.2-windows-amd64

05/10/2021  10:39 am    <DIR>          .
05/10/2021  10:39 am    <DIR>          ..
05/10/2021  10:39 am                1,131 git-log.txt
01/10/2021  05:09 pm            1,508,046 rclone.1
01/10/2021  05:23 pm            44,712,960 rclone.exe
01/10/2021  05:09 pm            1,602,840 README.html
01/10/2021  05:09 pm            1,315,218 README.txt
               5 File(s)          49,140,195 bytes
               2 Dir(s)  52,486,053,888 bytes free

P:\Downloads\rclone-v1.56.2-windows-amd64\rclone-v1.56.2-windows-amd64>rclone.exe authorize "dropbox"
2021/10/05 10:40:18 NOTICE: Config file "C:\\Users\\cde84\\AppData\\Roaming\\rclone\\rclone.conf" not found - using defaults
2021/10/05 10:40:20 NOTICE: If your browser doesn't open automatically go to the following link: http://127.0.0.1:53682/auth?state=pxVJ61VaffFLjJ4pETnqCQ
2021/10/05 10:40:20 NOTICE: Log in and authorize rclone for access
2021/10/05 10:40:20 NOTICE: Waiting for code...
2021/10/05 10:40:35 NOTICE: Got code
Paste the following into your remote machine --->
{"access_token":"f46ADnyCXkRa5Mmhep67ZNDIxsG4dbno6SBGI1iwMQi9xsDX5iE7bqFtHKRJkbwBfpIQa2suv-9Ry5-nWqhG39x4Tl1x-6X0UMnMFqMdgzY9hRiIz5V0jpMgS8rM","token_type":"bearer","refresh_token":"vL0JQnqDVgYAAAAAAAAAAZxwWMTaPQNo4L90Ej3LbeEFG3CynqyD2ebuib90je7","expiry":"2021-10-05T14:40:36.2931385+13:00"}
<---End paste

P:\Downloads\rclone-v1.56.2-windows-amd64\rclone-v1.56.2-windows-amd64>
```

and go back to the NeSI (or the Linux host where you want to set up rclone) terminal . Paste the code.

```

y/n> n
For this to work, you will need rclone available on a machine that has
a web browser available.

For more help and alternate methods see: https://rclone.org/remote\_setup/

Execute the following on the machine with the web browser (same rclone
version recommended):

    rclone authorize "dropbox"

Then paste the result below:
result> {"access_token": "6ADnyCXkRa5Mmhep67ZNDIxsG4dbno6SBGI1iWMQI9xsDX5iE7bqFtHKRJkbwBfpIqa2suv-9Ry5-nWqhG39x4Tl1x-6X0UMmMfQMdgzY9hRiIz5V0jpMgS8rM", "token_type": "bearer", "refresh_token": "vL0JQnqDVgYAAAAAAXxwMTaPQNo4L90Ej3LbeFgr3Cynqy02ebu1b90je7", "expiry": "2021-10-05T14:40:36.2931385+13:00"}
-----
[remote]
type = dropbox
token = {"access_token": "6ADnyCXkRa5Mmhep67ZNDIxsG4dbno6SBGI1iWMQI9xsDX5iE7bqFtHKRJkbwBfpIqa2suv-9Ry5-nWqhG39x4Tl1x-6X0UMmMfQMdgzY9hRiIz5V0jpMgS8rM", "token_type": "bearer", "refresh_token": "vL0JQnqDVgYAAAAAAXxwMTaPQNo4L90Ej3LbeFgr3Cynqy02ebu1b90je7", "expiry": "2021-10-05T14:40:36.2931385+13:00"}
-----
y) Yes this is OK (default)
e) Edit this remote
d) Delete this remote
y/e/d> y
Current remotes:

Name      Type
----      --
remote    dropbox

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> q
cde62@mahuika01: ~//.config/rclone$

```

By default, the remote storage name is "remote". I chose to Rename remote to "dropbox" (Option r)

Quit the config. You should have a config file here.

```
$HOME/.config/rclone/rclone.conf
```

which looks like

```

[dropbox]
type = dropbox
client_id =
client_secret =
token = {"access_token": "XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX", "token_type": "bearer", "expiry": "0001-01-01T00:00:00Z"}

```

Notice "dropbox" inside the bracket. This is the remote storage name, which I renamed from the default name "remote"

Using Rclone

Try

```
rclone ls dropbox:
```

If you didn't rename it to "dropbox", it will be

```
rclone ls remote:
```

If you can see a output similar to below, you now have the access to Dropbox. Congratulations.

```

(python3_mahuika) baes@mahuika01: ~$ rclone ls dropbox:
-1 2020-10-20 01:00:56      -1 backup
-1 2020-10-20 01:00:56      -1 emp_ds

```

Some useful commands.

List all the files in your dropbox

```
rclone ls dropbox:
```

To copy a local directory to a dropbox directory Cybershake/v21p1 (should exist)

```
rclone copy v21p1 dropbox:Cybershake/v21p1 --progress
```

Meaning, everything **under** the directory v21p1 (note: v21p1 itself is excluded) will be copied to Cybershake/v21p1. It doesn't auto-makedir, so you should make a folder named "v21p1" under Cybershake first.



rclone copy behaviour

rclone copy {src} dropbox:{dest}

1. {src} is a file, and {dest} is a file : a simple file copy.
2. {src} is a file, {dest} is a directory, the file named {src} will be placed under {dest}
3. {src} is a directory, {dest} is a directory, all files under {src} will be copied to {dest}. No directory of name {src} is made under {dest}
4. {src} is a directory, {dest} is a file, error.

- --progress gives progress.
- You can assume as long as a file is listed on Dropbox folder, its upload is "complete" - it does basic file size and time stamp check and the exact file copy is "almost" guaranteed.
- If you terminate the upload command, and restart, it will skip the files that have been uploaded already.
- The upload is NOT fast. 50Gb takes about 5 hours. It's best to run it on the login node, but in "screen". For more info about screen, see [Linux Screen Tutorial With Examples – POFTUT](#)
- Dropbox has undocumented maximum file size of 340Gb. If you r file is larger than that, split them into multiple parts before upload

```
split -b 340G $TARNAME "${TARNAME}.part"
```

- To merge split files, use the following command.

```
cat ${TARNAME}.part* > $TARNAME
```

To copy a single file to a specified location, give the dest file name, for example,

```
rclone copy Akatore/Akatore_REL01/BB/Acc/BB.bin dropbox:Cybershake/v21p6/v21p6_100m_BB/Akatore/Akatore_REL01/BB/Acc/BB.bin -vv
```

If desired, you can add a bit more intelligence here.

Suppose we have faults.txt, a list of fault names. We want to back up BB.bin under these faults only.

```
cat faults.txt |xargs -I {} find {} -name BB.bin |sort |xargs -I {} rclone copy {} dropbox:Cybershake/v21p6/v21p6_100m_BB/{} -vv
```

To generate a link to file or folder to share

```
rclone link dropbox:path [flags]
```

For more info, check out <https://rclone.org/dropbox/>