使用 Rclone 串接雲端空間　　　　版次：20190115 v1.0

台灣杉一號安裝了 Rclone，提供操控雲端空間的指令，可以在 CLI (command-line interface) 的環境上傳/下載雲端空間的檔案。可串接的雲端空間包含了 Google Drive、Microsoft OneDrive、Dropbox 等服務，詳細支援請參考官網。

以下說明 Rclone 遠端連線至雲端空間，以 Google Drive 為例，分為二部分：

1. Rclone 遠端連線至 Google Drive
2. Rclone 基本指令操作範例

1. Rclone 遠端連線至 Google Drive

Step 1. 參考台灣杉 1 號使用手冊，以 SSH 連線至主機

Step 2. 載入 Rclone ，指令列請輸入：

```
module load rclone/1.45
```

Step 3. 顯示 Rclone 的說明，確定載入成功與否

```
rclone –help
     或
man rclone
```

Step 4. 設定遠端連線至 Google Drive：下完以下指令，會出現一連串互動式問答設定，依
序填入即新增完成

```
rclone config
```

互動式填入資訊範例：

```
No remotes found - make a new one
n) New remote
s) Set configuration password
q) Quit config
n/s/q> n (選 n 新增雲端空間)
name> google_drive_test (命名 google_drive_test)
Type of storage to configure.
Enter a string value. Press Enter for the default ("").
Choose a number from below, or type in your own value
 1 / A stackable unification remote, which can appear to merge the
contents of several remotes
   \ "union"
 2 / Alias for a existing remote
   \ "alias"
 3 / Amazon Drive
   \ "amazon cloud drive"
 4 / Amazon S3 Compliant Storage Providers (AWS, Ceph, Dreamhost, IBM
COS, Minio)
   \ "s3"
 5 / Backblaze B2
   \ "b2"
 6 / Box
   \ "box"
 7 / Cache a remote
   \ "cache"
 8 / Dropbox
   \ "dropbox"
 9 / Encrypt/Decrypt a remote
   \ "crypt"
10 / FTP Connection
   \ "ftp"
11 / Google Cloud Storage (this is not Google Drive)
   \ "google cloud storage"
12 / Google Drive
   \ "drive"
13 / Hubic
   \ "hubic"
14 / JottaCloud
   \ "jottacloud"
15 / Local Disk
   \ "local"
16 / Mega
   \ "mega"
17 / Microsoft Azure Blob Storage
   \ "azureblob"
```

```
18 / Microsoft OneDrive
   \ "onedrive"
19 / OpenDrive
   \ "opendrive"
20 / Openstack Swift (Rackspace Cloud Files, Memset Memstore, OVH)
   \ "swift"
21 / Pcloud
   \ "pcloud"
22 / QingCloud Object Storage
   \ "qingstor"
23 / SSH/SFTP Connection
   \ "sftp"
24 / Webdav
   \ "webdav"
25 / Yandex Disk
   \ "yandex"
26 / http Connection
   \ "http"
Storage> 12 (打入 Google Drive 對應序號 12)
** See help for drive backend at: https://rclone.org/drive/ **

Google Application Client Id
Leave blank normally.
Enter a string value. Press Enter for the default ("").
client_id> (通常直接按 enter 不需填入，參考備註①)
Google Application Client Secret
Leave blank normally.
Enter a string value. Press Enter for the default ("").
client_secret> (通常直接按 enter 不需填入，參考備註①)
Scope that rclone should use when requesting access from drive.
Enter a string value. Press Enter for the default ("").
Choose a number from below, or type in your own value
 1 / Full access all files, excluding Application Data Folder.
   \ "drive"
 2 / Read-only access to file metadata and file contents.
   \ "drive.readonly"
   / Access to files created by rclone only.
 3 | These are visible in the drive website.
   | File authorization is revoked when the user deauthorizes the app.
   \ "drive.file"
   / Allows read and write access to the Application Data folder.
 4 | This is not visible in the drive website.
   \ "drive.appfolder"
   / Allows read-only access to file metadata but
 5 | does not allow any access to read or download file content.
   \ "drive.metadata.readonly"
scope> 1 (選 1 獲取全部權限)
```

```
ID of the root folder
Leave blank normally.
Fill in to access "Computers" folders. (see docs).
Enter a string value. Press Enter for the default ("").
root_folder_id> (直接按 enter 不需填入)
Service Account Credentials JSON file path
Leave blank normally.
Needed only if you want use SA instead of interactive login.
Enter a string value. Press Enter for the default ("").
service_account_file> (直接按 enter 不需填入)
Edit advanced config? (y/n)
y) Yes
n) No
y/n> n (選 n 不需要進階設定)
Remote config
Use auto config?
 * Say Y if not sure
 * Say N if you are working on a remote or headless machine or Y didn't
work
y) Yes
n) No
y/n> n (選 n，複製底下網址貼到自己電腦的瀏覽器，瀏覽器畫面如備註②)
If your browser doesn't open automatically go to the following link:
https://accounts.google.com/o/oauth2/auth?access_type=offline&...
Log in and authorize rclone for access
(上步驟同意 Rclone 權限後，網頁會出現一組亂碼，此時複製貼到底下，瀏覽器畫面如
備註③)
Enter verification code> 4/zgDS6-2P49oRpkvWx...
Configure this as a team drive?
y) Yes
n) No
y/n> n (選 n，通常沒有用 team drive)
--------------------
[google_drive_test]
type = drive
scope = drive
token =
{"access_token":"XXX","token_type":"Bearer","refresh_token":"XXX","expiry
":"2019-01-10T11:42:22.453656282+08:00"}
--------------------
y) Yes this is OK
e) Edit this remote
d) Delete this remote
y/e/d> y (確認上述資訊正確，選 y 儲存)
Current remotes:
```

```
Name                    Type
====                    ====
google_drive_test       drive
----------------------------------------------
```

2. Rclone 基本操作指令範例

1. 列出雲端空間裡的資料夾：

```
rclone lsd google_drive_test:
```

2. 列出雲端空間的資料夾 remote_folder 內，所有檔案：

```
rclone ls google_drive_test:remote_folder
```

3. 複製本機檔案 test.jpg，到雲端資料夾 remote_folder 內：

```
rclone copy ~/local_folder/test.jpg google_drive_test:remote_folder
```

4. 複製雲端空間檔案 test.jpg 到本機資料夾 local_folder 內：

```
rclone copy google_drive_test:remote_folder/test.jpg  ~/local_folder
```

5. 同步本機檔案 test.jpg 到雲端空間 remote_folder 資料夾：

```
rclone sync ~/local_folder/test.jpg google_drive_test:remote_folder
```

6. 同步雲端空間資料夾 remote_folder 到本機，本機資料夾名稱命名 local_folder：

```
rclone sync google_drive_test:remote_folder  ~/local_folder
```
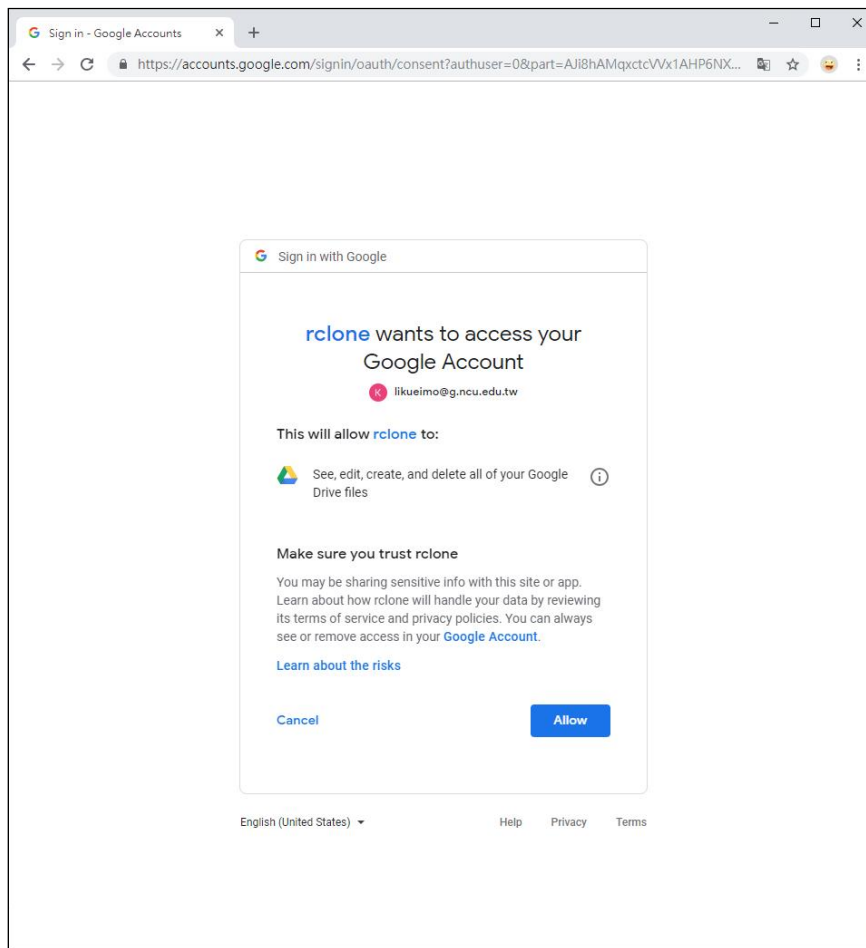
7. 同步雲端空間資料夾 remote_folder 到本機，本機資料夾名稱命名 local_folder，並一次傳輸 10 個檔案(--transfers=10)，並顯示詳細資訊(-vv)：

```
rclone sync -vv --transfers=10 google_drive_test:remote_folder
~/local_folder
```

其他進階操作可以參考 Rclone 官網文件 https://rclone.org/docs/

備註:

① 若要增加 Google Drive 上傳/下載速度，可以設定自己 Google client ID，詳情可以參考官網， Making your own client_id 部分

② 複製網址貼到瀏覽器上，Rclone 將要求權限讀取你的 Google Drive，請按同意

③ 同意後出現一組亂碼，再複製貼回 Rclone 互動式問答下