1) Pre-requisite - You have a S3 bucket:

If you are the owner of the bucket you have received from UNIL DCSR the following email:

Dear user,

The object storage area related to your project "dci_data_transfer" for normal data has been provisioned on DCSR S3 infrastructure. Here is the information required to access to the S3 bucket:

- Server: here is the name of the server from or outside unil
- Bucket: bucket name here
- Access keys: link to get your keys
 (This link is valid for one month, please backup the information contained before the expiration)
 Best regards,
 The DCSR team.

If you click on the access keys link you will have the following information:

Here are the keys used to access your S3 bucket:

- Read-only access:
 - Access key: xxxx
 - Private key: wwwwww
- Read-write access:
 - Access key: yyyyyyy
 - Private key: zzzzzzz

Please keep that information for you. You can also manage your bucket via the Read-Write keys - meaning deleting some object/data or you can share with another person bucket via the read-only access

2) Rclone - your tool for data downloading:

Do you have Rclone installed on your server? If not then please install Rclone on your server. For this follow the documentation from this website:

https://rclone.org/

Once you are done with Rclone you can configure your access to the bucket

3) Setup Rclone for data transfer - Config file

You have to setup a config file for Rclone with credential. Usually the file is located in the following folder:

.config/rclone/rclone.conf

This file only exist if you have been already setting up Rclone for data transfer. If the file doesn't exist you can create it nano .config/rclone/rclone.conf

From your email sent by the DCSR gather the following information:

- Server: http://s3.unil.ch/
- Bucket: bucket name here
- Access key: yyyyyyy

Editing of the rclone.conf file:

- Private key: zzzzzzz

Edit the config file by entering the following information

[S3_Config_UNIL]
type = s3
provider = Other
access_key_id = yyyyyyy
secret_access_key = zzzzzzz
endpoint = http://s3.unil.ch
acl = private

Then create an alias:

[S3-UNIL-RW]
type = alias
remote = S3 Config UNIL:bucket name here

Important remark: For user outside the UNIL network the endpoint of the S3 is different!!!

Change the endpoint to the following one: endpoint = http://s3.unil.ch

Once you have edited the file save it and you can go to the next section Upload and Download

4) Upload and Download:

Test if you list what there is in your bucket:

Rclone -vvP lsd S3-UNIL-RW:

Output should be the following:

username@servername:~\$ rclone -vvP lsd S3-UNIL-RW:

```
2024/02/22 09:30:50 DEBUG : rclone: Version "v1.65.2" starting with
parameters ["rclone" "-vvP" "lsd" "S3-UNIL-RW:"]
2024/02/22 09:30:50 DEBUG: Creating backend with remote "S3-EMF-RW:"
2024/02/22 09:30:50 DEBUG : Using config file from
"/home/servername/.config/rclone/rclone.conf"
2024/02/22 09:30:50 DEBUG : Creating backend with remote
"S3 Config UNIL:bucket name here"
2024/02/22 09:30:50 DEBUG: Resolving service "s3" region "us-east-1"
2024/02/22 09:30:50 DEBUG : fs cache: renaming cache item "S3-UNIL-RW:"
to be canonical "S3 Config UNIL:bucket name here"
0\ 2000-01-01\ 01:00:\overline{00}
                            -1 Test
                           0 B / 0 B, -, 0 B/s, ETA -
Transferred:
                      0.0s
Elapsed time:
2024/02/22 09:30:50 DEBUG : 5 go routines active
Username@servername:~$
Basically in this case you have a folder "Test"
If you have an error such as :
Errors:
                        1 (retrying may help)
Elapsed time:
                      0.0s
2024/02/06 13:22:42 DEBUG : 5 go routines active
2024/02/06 13:22:42 Failed to ls: Forbidden: Forbidden
     status code: 403, request id: , host id:
please check your config file, password and endpoint !!!
Uploading a file from your Server to your Bucket:
Rclone -vvP copy myFile.log S3-UNIL-RW:Test/ --s3-no-check-bucket
This command will copy the file myFile.log into the folder Test
Getting your data out of the S3:
Rclone -vvP copy S3-UNIL-RW:Test/ IntoMyFolder/IntoMySubFolder/ --s3-no-
check-bucket
This command will copy all the files from the bucket and folder Test in
your folder you currently are.
```