

# Amazon S3

It's a service offered by AWS that provides object storage through a web interface with the goal to make managing developer resources easier.

**Buckets** are containers for objects. You can have one or more buckets. You can also control access to each bucket, deciding who can create, delete and list objects in it.

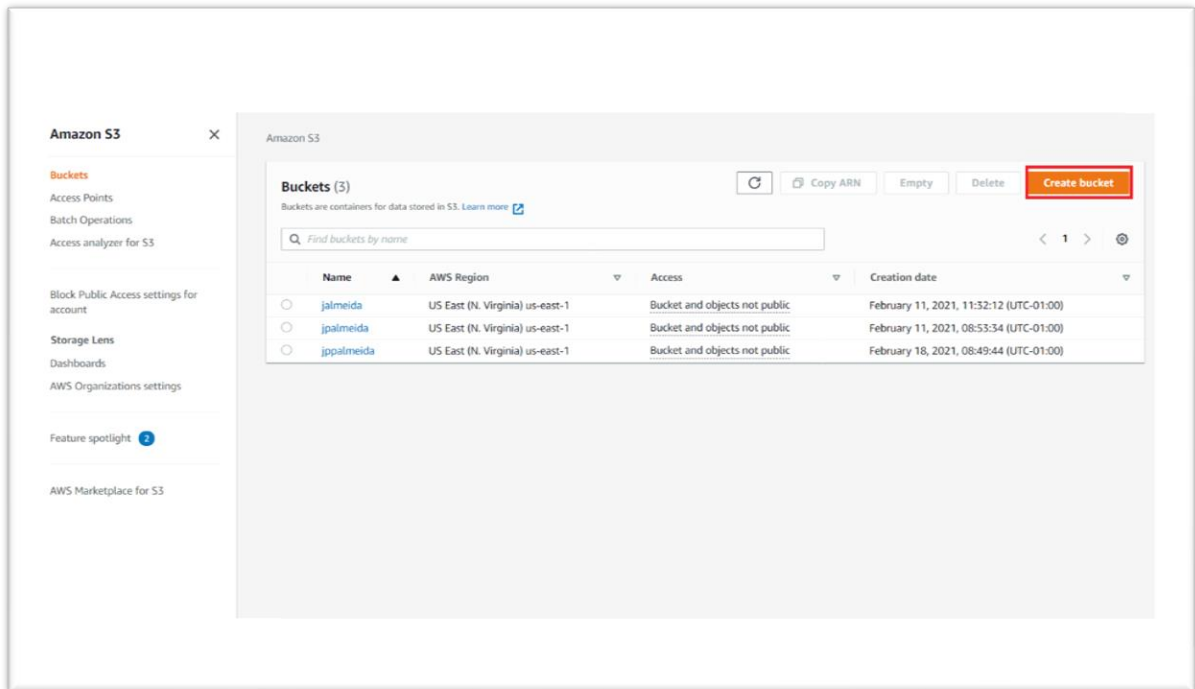


Figure 1 – Amazon S3 Bucket

## Setting up the S3 Bucket on Windows

**1º Step** – Open the Windows Powershell and install rclone.

**Rclone** is an opensource command line program to manage files on cloud storage.

**2º Step** – Go to rclone directory and run rclone in the configuring mode typing **.\rclone.exe config**.

**3º Step** – Type “n” and press Enter to select the New Remote Option. After that you enter the name of your S3 bucket.

**4º Step** – Select the type of cloud storage to configure. In my case, I'm using AWS, so type number “4”.

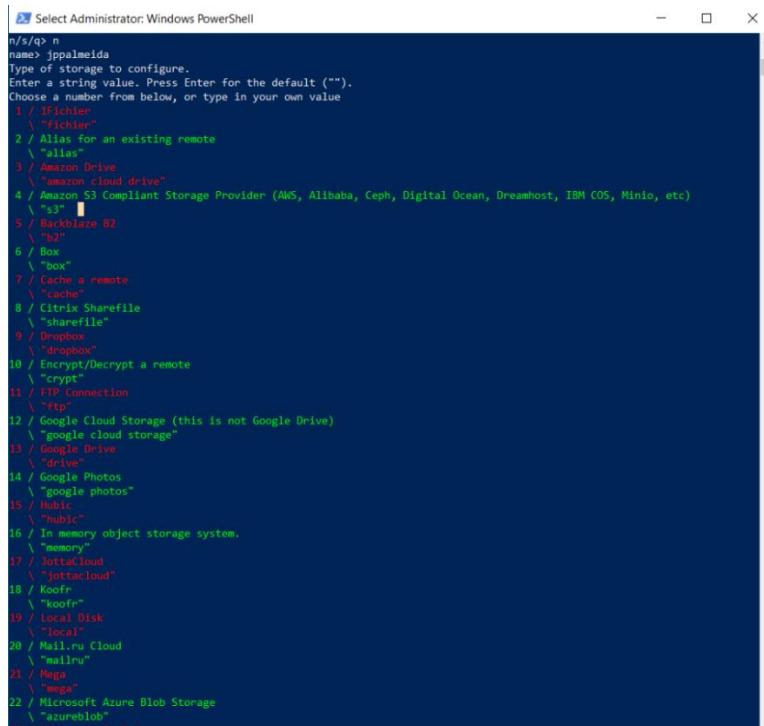


Figure 2 – Storage config

**5º Step** – Next, I choose the provider that it's AWS.

**6º Step** – Type “1” to enter your credentials of AWS. After that, choose the region of your bucket.

**7º Step** – In the Endpoint we can leave it by default typing “**Enter**”. In Location\_constraint leave the same region as in step 6. In ACL we can leave it by default too. In terms of server\_side\_encryption, I will leave it for now without encryption typing “1”.

**8º Step** – I choose “**Standard**” in storage\_class and posteriorly in edit advanced config I type “y” only to introduce my token\_session, the rest I can leave it by default typing “**Enter**” and when it's done I can type “q” to quit the configuration wizard.

After **Step 8**, the rclone is now configured to work with Amazon S3 cloud storage.

Typing **.rclone.exe lsd nameofyourbucket:**, we can see the bucket created.

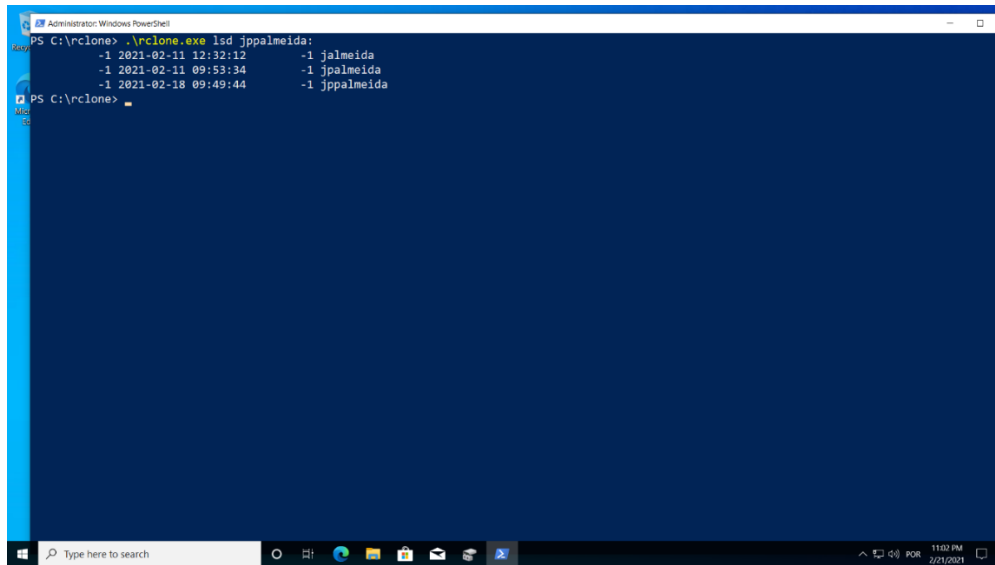


Figure 3 – Bucket List

**9º Step** – Install the Chocolatey, which is a Windows package manager that can be used to install application from online repositories:

**Set-ExecutionPolicy Bypass -Scope Process -Force; iex ((New-Object System.Net.WebClient).DownloadString('https://chocolatey.org/install.ps1'))**

And next install the **winfsp** from chocolatey repositories:

**choco install winfsp -y**

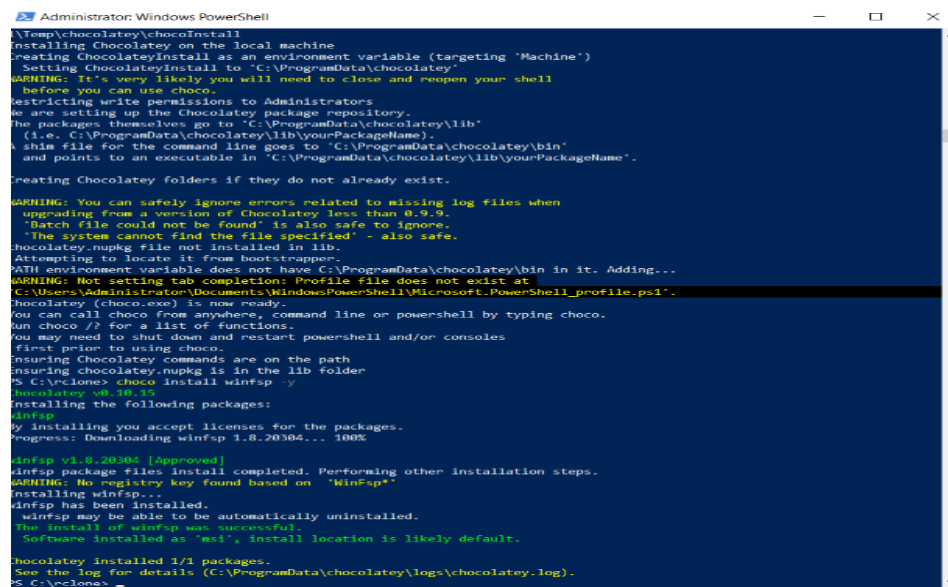


Figure 4 – Installation of winfsp

Finally to mount your Amazon S3 to your Windows System as a drive you type:

```
.\rclone mount nameofyourbucket:nameofyourbucket/ S: --vfs-cache-mode full
```

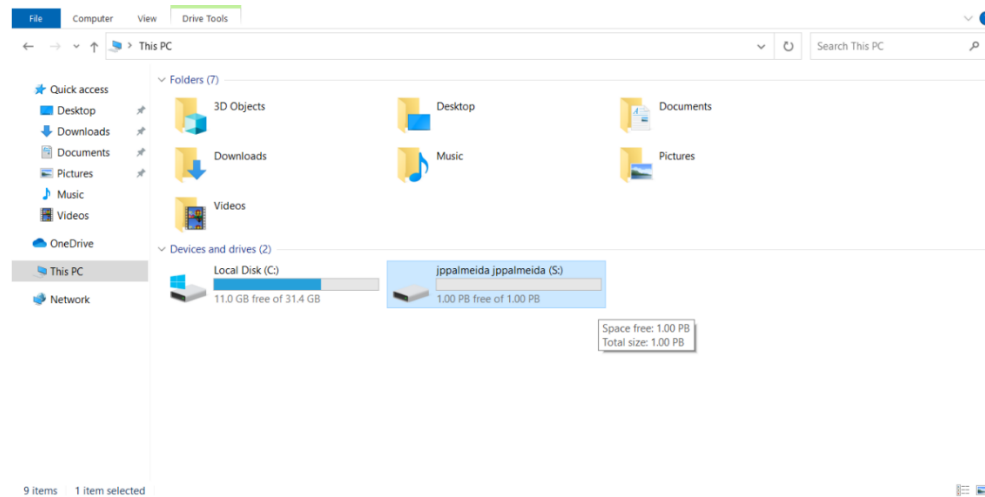


Figure 5 – Bucket Disk created

## Creation of an Encrypted Virtual Disk inside the Bucket Disk

10 - Go to Disk Management and Create VHD, put it on your Desktop.

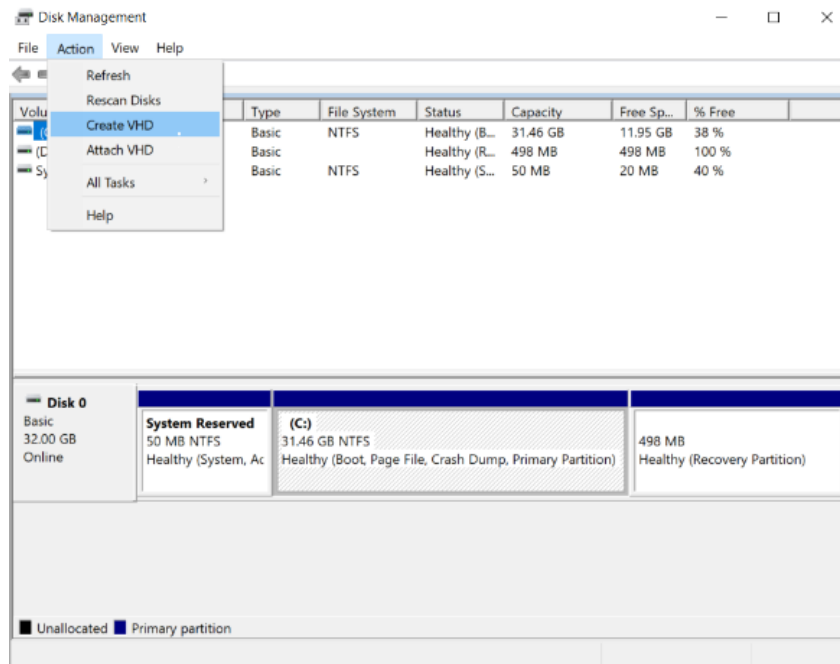


Figure 6 – Creation of a VHD

**2º** - Next initialize the disk and make a new simple volume with it. After that, create a simple file.txt in the new volume write something inside the file and save.

**3º** - Click in the new volume to turn on the Bitlocker and give a password, save the recovery key, choose how much of your drive to encrypt and which encryption to use.

**4º** - Detach the VHD and copy the disk in Desktop to inside the bucket disk.

**5º** - Go to Disk Management and attach the disk that you copied to inside the bucket disk and will appear your encrypted disk with the file inside it.