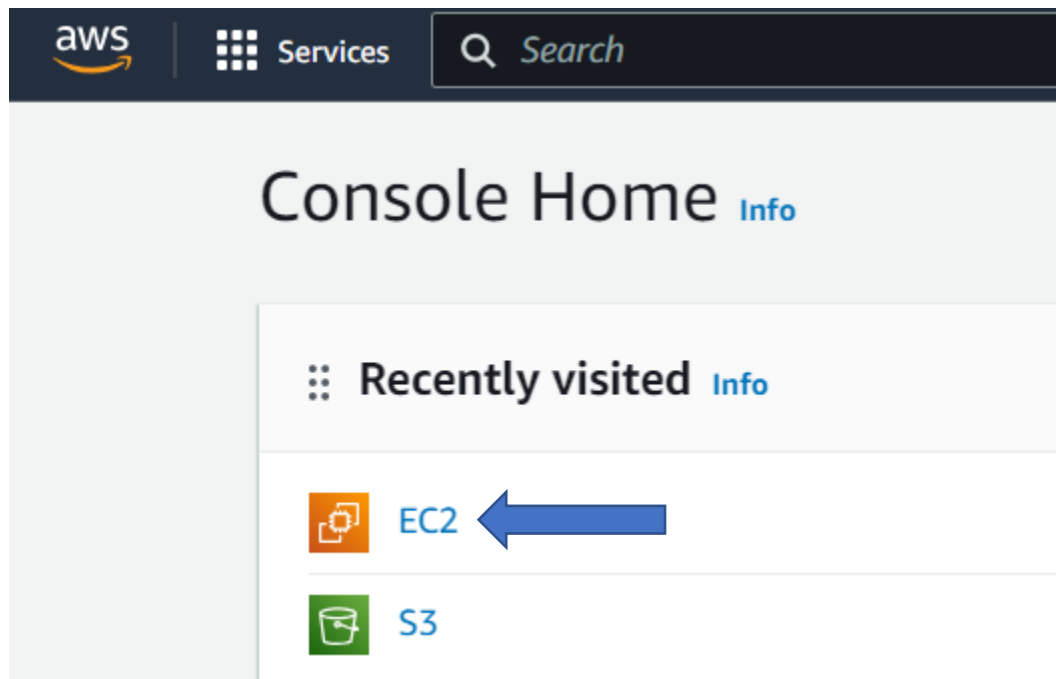


Laboratoire pratique cloud

OwnCloud

1. Création de la machine virtuelle

Nous avons travaillé dans le service cloud AWS pour créer une machine virtuelle de type Ubuntu Server 22.04.



aws | **Services** | [A]

EC2 Dashboard ✕

- EC2 Global View
- Events
- ▼ **Instances**
 - Instances
 - Instance Types
 - Launch Templates
 - Spot Requests
 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Capacity Reservations
- ▼ **Images**
 - AMIs
 - AMI Catalog
- ▼ **Elastic Block Store**
 - Volumes
 - Snapshots
 - Lifecycle Manager

Resources

You are using the following Amazon EC2 resources in the L

Instances (running)	1	Auto Scaling Gro
Elastic IPs	0	Instances
Load balancers	0	Placement group
Snapshots	0	Volumes

Launch instance

To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.

Launch instance ▼ ←

Migrate a server ↗

Note: Your instances will launch in the US East (N. Virginia) Region

aws | **Services** | [Alt+S] | N. Virginia | voclabs/user2810158=2

EC2 > Instances > Launch an instance

Launch an instance Info

Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.

Name and tags Info

Name
bryanmohamedh53 ← Add additional tags

▼ **Summary**


Number of instances Info
1 ←

Software Image (AMI)
Amazon Linux 2023 AMI 2023.2.2...read more
ami-0dbc3d7bc646e8516


Virtual server type (instance type)
t2.micro

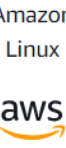
▼ Application and OS Images (Amazon Machine Image) [Info](#)

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below


 Search our full catalog including 1000s of application and OS images

Quick Start







Amazon Linux




macOS




Ubuntu




Windows



Red Hat




SUSE Linux



[Browse more AMIs](#)

Including AMIs from AWS, Marketplace and the Community

Amazon Machine Image (AMI)



Ubuntu Server 22.04 LTS (HVM), SSD Volume Type Free tier eligible ▼

ami-0fc5d935ebf8bc3bc (64-bit (x86)) / ami-016485166ec7fa705 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Description

Canonical, Ubuntu, 22.04 LTS, amd64 jammy image build on 2023-09-19

Architecture

64-bit (x86) ▼

AMI ID

ami-0fc5d935ebf8bc3bc

Verified provider

▼ Instance type [Info](#)

Instance type

t2.small

Family: t2 1 vCPU 2 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.032 USD per Hour
On-Demand Linux base pricing: 0.023 USD per Hour
On-Demand RHEL base pricing: 0.083 USD per Hour
On-Demand SUSE base pricing: 0.053 USD per Hour

☐ All generations

[Compare instance types](#)

[Additional costs apply for AMIs with pre-installed software](#)

▼ Key pair (login) [Info](#)

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - *required*

Proceed without a key pair (Not recommended)

Default value ▼

[Create new key pair](#)

▼ Network settings [Info](#)

Edit

Network [Info](#)

vpc-02feafc170d2038dc

Subnet [Info](#)

No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)

Enable

Firewall (security groups) [Info](#)

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☒ Create security group

☐ Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

☒ Allow SSH traffic from
Helps you connect to your instance

Anywhere
0.0.0.0/0

☒ Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only. ✕

▼ Configure storage [Info](#)

Advanced

1x 8 GiB gp2 Root volume (Not encrypted)

ℹ Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage ✕

Add new volume

The selected AMI contains more instance store volumes than the instance allows. Only the first 0 instance store volumes from the AMI will be accessible from the instance

0 x File systems

Edit

► Advanced details [Info](#)

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

ℹ Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GB of snapshots, and 100 GB of bandwidth to the ✕

Cancel

Launch instance

Review commands

Nous avons connecté à notre instance.

Success
Successfully initiated launch of instance (i-0646583eb2843f755)

► Launch log

Next Steps

What would you like to do next with this instance, for example "create alarm" or "create backup"

Create billing and free tier usage alerts
To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.
[Create billing alerts](#)

Connect to your instance
Once your instance is running, log into it from your local computer.
[Connect to instance](#)
[Learn more](#)

Connect an RDS database
Configure the connection between an EC2 instance and a database to allow traffic flow between them.
[Connect an RDS database](#)
[Create a new RDS database](#)
[Learn more](#)

Create EBS snapshot policy
Create a policy that automates the creation, retention, and deletion of EBS snapshots
[Create EBS snapshot policy](#)

Connect to instance Info

Connect to your instance i-0646583eb2843f755 (bryanmohamedh53) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console

Instance ID
i-0646583eb2843f755 (bryanmohamedh53)

Connection Type

☒ **Connect using EC2 Instance Connect**
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 address.

☐ **Connect using EC2 Instance Connect Endpoint**
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IP address
3.83.97.10

User name
Enter the user name defined in the AMI used to launch the instance. If you didn't define a custom user name, use the default user name, ubuntu.
ubuntu

Note: In most cases, the default user name, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel

Connect

Nous avons effectué les mises à jour à notre système.

```
aws Services Search [Alt+S]
ubuntu@ip-172-31-83-209:~$ sudo apt update && sudo apt upgrade -y
Hit:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports InRelease [109 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [14.1 MB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe Translation-en [5652 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/universe amd64 c-n-f Metadata [286 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [217 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse Translation-en [112 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/multiverse amd64 c-n-f Metadata [8372 B]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1146 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main Translation-en [244 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 c-n-f Metadata [16.1 kB]
Get:14 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [1099 kB]
Get:15 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted Translation-en [178 kB]
Get:16 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 c-n-f Metadata [536 B]
Get:17 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [998 kB]
Get:18 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe Translation-en [218 kB]
Get:19 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/universe amd64 c-n-f Metadata [22.0 kB]
Get:20 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [41.6 kB]
Get:21 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse Translation-en [9768 B]
Get:22 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 c-n-f Metadata [472 B]
Get:23 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [64.2 kB]
Get:24 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main Translation-en [10.5 kB]
Get:25 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/main amd64 c-n-f Metadata [388 B]
Get:26 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/restricted amd64 c-n-f Metadata [116 B]
Get:27 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [28.9 kB]

i-0646583eb2843f755 (bryanmohamedh53)
PublicIPs: 3.83.97.10 PrivateIPs: 172.31.83.209
```

Nous avons installé Apache2.

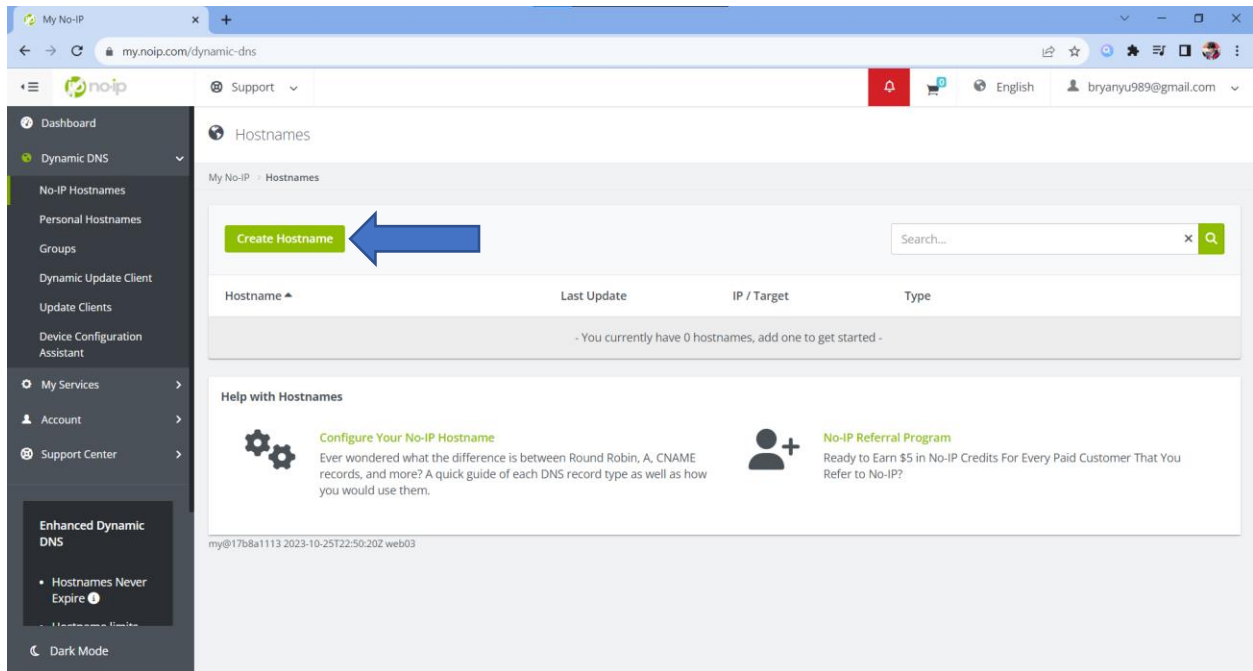
```
ubuntu@ip-172-31-83-209:~$ sudo apt install apache2 -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  apache2-bin apache2-data apache2-utils bzip2 libapr1 libaprutil1
Suggested packages:
  apache2-doc apache2-suexec-pristine | apache2-suexec-custom
The following NEW packages will be installed:
  apache2 apache2-bin apache2-data apache2-utils bzip2 libapr1
0 upgraded, 13 newly installed, 0 to remove and 0 not upgrade
Need to get 2137 kB of archives.
After this operation, 8505 kB of additional disk space will be used.
Get:1 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-bin amd64 2.4.18-0ubuntu0.22.04.1 [382 kB]
Get:2 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-data amd64 2.4.18-0ubuntu0.22.04.1 [112 kB]
Get:3 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-utils amd64 2.4.18-0ubuntu0.22.04.1 [112 kB]
Get:4 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 bzip2 amd64 1.0.8-2build1 [19.5 kB]
Get:5 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libapr1 amd64 1.7.0-4build1 [100 kB]
Get:6 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 libaprutil1 amd64 1.6.1-0ubuntu0.22.04.1 [112 kB]
Get:7 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2 amd64 2.4.18-0ubuntu0.22.04.1 [144 kB]
Get:8 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-bin amd64 2.4.18-0ubuntu0.22.04.1 [382 kB]
Get:9 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libapr1 amd64 1.7.0-4build1 [100 kB]
Get:10 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 libaprutil1 amd64 1.6.1-0ubuntu0.22.04.1 [112 kB]
Get:11 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy-updates/main amd64 apache2-data amd64 2.4.18-0ubuntu0.22.04.1 [112 kB]
Get:12 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 bzip2 amd64 1.0.8-2build1 [19.5 kB]
Get:13 http://us-east-1.ec2.archive.ubuntu.com/ubuntu jammy/main amd64 apache2-utils amd64 2.4.18-0ubuntu0.22.04.1 [112 kB]
Fetched 2137 kB in 0s (24.5 MB/s)
Preconfiguring packages ...
```

i-0646583eb2843f755 (bryanmohamedh53)

PublicIPs: 3.83.97.10 PrivateIPs: 172.31.83.209

2. Utilisation d'un nom de domaine

Nous avons utilisé un nom de domaine pour notre site OwnCloud après l'avoir configuré dans le site No-IP.



+ Create a Hostname

Hostname ⓘ

sabiryucloud ←

Domain ⓘ

ddns.net ↓ ←

Record Type

☒ DNS Host (A) ⓘ ←

☐ AAAA (IPv6) ⓘ

☐ DNS Alias (CNAME) ⓘ

☐ Web Redirect ⓘ

[Manage](#) your Round Robin, TXT, SRV and DKIM records.

IPv4 Address ⓘ

3.83.97.10 ←

Wildcard ⓘ

[Upgrade to Enhanced](#)

to enable wildcard hostnames.

MX Records

+ Add MX Records

Cancel

Create Hostname ←

Hostnames

My No-IP > Hostnames

Create Hostname

Search... ×



Hostname ▲

Last Update

IP / Target

Type

← sabiryucloud.ddns.net

Active

Oct 30, 2023
15:58 PDT ⓘ

3.83.97.10

A



Modify



3. Certification reconnue

Pour rendre notre site sécurisé, nous avons associé notre nom de domaine à un certificat reconnu.

```
ubuntu@ip-172-31-83-209:~$ sudo apt install snapd -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
snapd is already the newest version (2.58+22.04.1).
snapd set to manually installed.
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-83-209:~$
```

```
ubuntu@ip-172-31-83-209:~$ sudo apt-get remove certbot
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Package 'certbot' is not installed, so not removed
0 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
ubuntu@ip-172-31-83-209:~$
```

```
ubuntu@ip-172-31-83-209:~$ sudo snap install certbot --classic
certbot 2.7.3 from Certbot Project (certbot-eff✓) installed
ubuntu@ip-172-31-83-209:~$
```

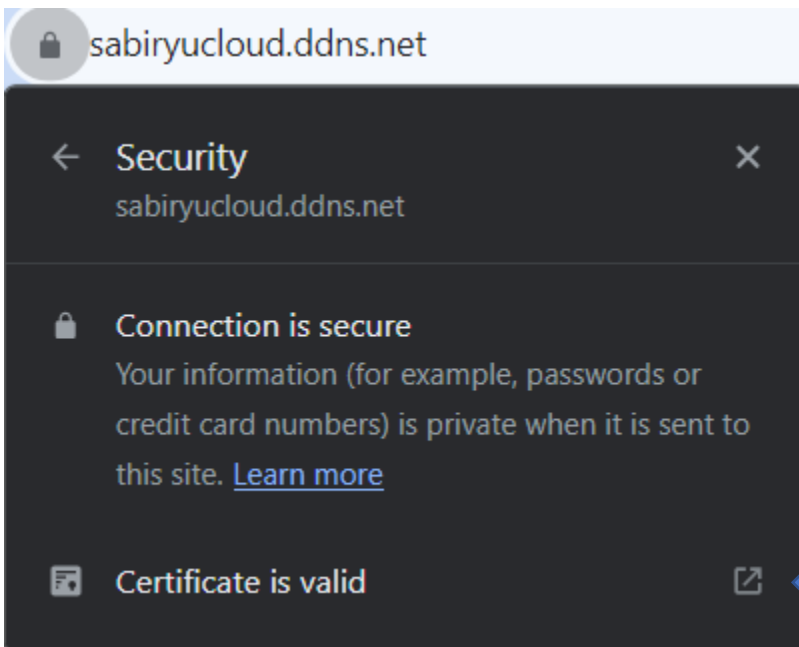
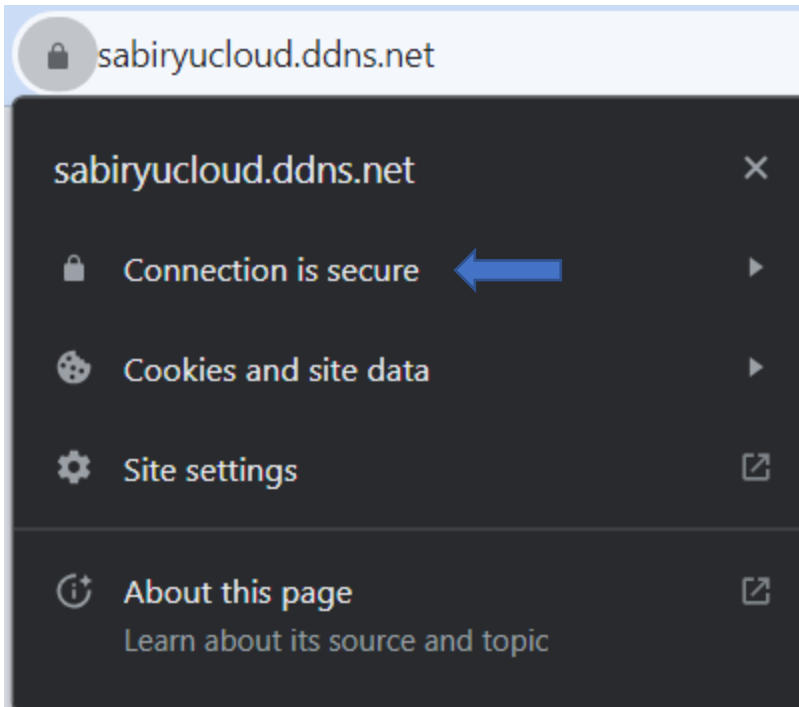
```
ubuntu@ip-172-31-83-209:~$ sudo certbot --apache
Saving debug log to /var/log/letsencrypt/letsencrypt.log
Enter email address (used for urgent renewal and security notices)
(Enter 'c' to cancel): sabiryu123@gmail.com
```

```
-----
Please read the Terms of Service at
https://letsencrypt.org/documents/LE-SA-v1.3-September-21-2022.pdf. You must
agree in order to register with the ACME server. Do you agree?
-----
(Y)es/ (N)o: Y
```

```
-----  
Would you be willing, once your first certificate is successfully issued, to  
share your email address with the Electronic Frontier Foundation, a founding  
partner of the Let's Encrypt project and the non-profit organization that  
develops Certbot? We'd like to send you email about our work encrypting the web,  
EFF news, campaigns, and ways to support digital freedom.  
-----  
(Y)es/ (N)o: N  
Account registered.
```

```
Please enter the domain name(s) you would like on your certificate (comma and/or  
space separated) (Enter 'c' to cancel): sabiryucloud.ddns.net  
Requesting a certificate for sabiryucloud.ddns.net  
  
Successfully received certificate.  
Certificate is saved at: /etc/letsencrypt/live/sabiryucloud.ddns.net/fullchain.pem  
Key is saved at: /etc/letsencrypt/live/sabiryucloud.ddns.net/privkey.pem  
This certificate expires on 2024-01-28.  
These files will be updated when the certificate renews.  
Certbot has set up a scheduled task to automatically renew this certificate in the background.  
  
Deploying certificate  
Successfully deployed certificate for sabiryucloud.ddns.net to /etc/apache2/sites-available/000-default-le-ssl.conf  
Congratulations! You have successfully enabled HTTPS on https://sabiryucloud.ddns.net  
  
-----  
If you like Certbot, please consider supporting our work by:  
* Donating to ISRG / Let's Encrypt: https://letsencrypt.org/donate  
* Donating to EFF: https://eff.org/donate-le  
-----  
ubuntu@ip-172-31-83-209:~$
```





Certificate Viewer: sabiryucloud.ddns.net

General

Details

Issued To

Common Name (CN)	sabiryucloud.ddns.net
Organization (O)	<Not Part Of Certificate>
Organizational Unit (OU)	<Not Part Of Certificate>

Issued By

Common Name (CN)	R3
Organization (O)	Let's Encrypt
Organizational Unit (OU)	<Not Part Of Certificate>

Validity Period

Issued On	Monday, October 30, 2023 at 6:01:52 PM
Expires On	Sunday, January 28, 2024 at 5:01:51 PM

SHA-256 Fingerprints

Certificate	9dcdd54c61a76a57cc7410f249f2953f86b8946cf36b0e9982acdc05e1c5b bbe6
Public Key	02c02fb1458a4b88ed1e59e5440eb0596326134fffb306fa7cca7041b66 8cd70

4. Installation du serveur OwnCloud

Nous avons téléchargé un script Bash pour effectuer l'installation complète de notre serveur OwnCloud.

```
ubuntu@ip-172-31-83-209:~$ wget https://raw.githubusercontent.com/linuxsyz/owncloud/main/owncloud.bash
--2023-10-30 23:05:48-- https://raw.githubusercontent.com/linuxsyz/owncloud/main/owncloud.bash
Resolving raw.githubusercontent.com (raw.githubusercontent.com)... 185.199.111.133, 185.199.108.133, 185.199.109.133, ...
Connecting to raw.githubusercontent.com (raw.githubusercontent.com)|185.199.111.133|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 3128 (3.1K) [text/plain]
Saving to: 'owncloud.bash'

owncloud.bash      100%[=====] 3.05K  --.-KB/s  in 0s

2023-10-30 23:05:48 (25.8 MB/s) - 'owncloud.bash' saved [3128/3128]

ubuntu@ip-172-31-83-209:~$
```

```
ubuntu@ip-172-31-83-209:~$ ls
owncloud.bash
ubuntu@ip-172-31-83-209:~$ sudo chmod +x owncloud.bash
ubuntu@ip-172-31-83-209:~$ sudo bash ./owncloud.bash
```

Procédons l'installation.

```
ownCloud was successfully installed
ubuntu@ip-172-31-83-209:~$
```

5. Configuration du serveur OwnCloud

Puisque nous avons utilisé un nom de domaine configuré dans le site No-IP, nous avons redirigé notre site à ce nom de domaine.

```
ubuntu@ip-172-31-83-209:~$ cd /var/www/owncloud/config/
ubuntu@ip-172-31-83-209:/var/www/owncloud/config$ sudo vim config.php
```

```
<?php
$CONFIG = array (
    'updatechecker' => false,
    'passwordsalt' => 'Z9BOfp4I09fAxXY4V6akdkj+/9vXCL',
    'secret' => 'IhYGxdc7qfXHeMPx5MSrLeUJCPTaPReoKQnsgLv/HubtXFdd',
    'trusted_domains' =>
    array (
        0 => 'sabiryucloud.ddns.net',
    ),
    'datadirectory' => '/var/www/owncloud/data',
    'overwrite.cli.url' => 'http://localhost',
    'dbtype' => 'mysql',
    'version' => '10.9.1.2',
    'dbname' => 'owncloud_db',
    'dbhost' => 'localhost',
    'dbtableprefix' => 'oc_',
    'mysql.utf8mb4' => true,
    'dbuser' => 'oc_root',
    'dbpassword' => 'Bft9x4jy68KWTBOgoRMC23687uCNos',
    'allow_user_to_change_mail_address' => '',
    'logtimezone' => 'UTC',
    'apps_paths' =>
    array (
        0 =>
        array (
            'path' => '/var/www/owncloud/apps',
            'url' => '/apps',

```


6. Connexion au serveur OwnCloud

Nous sommes connectés sur la page de connexion du serveur OwnCloud.

