

INFORME – LABORATORIO PRÁCTICO DE CONECTIVIDAD EN AWS

Tema

VPC, Subnets, Internet Gateway, EC2, Route 53 y CloudFront

Autor

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Fecha

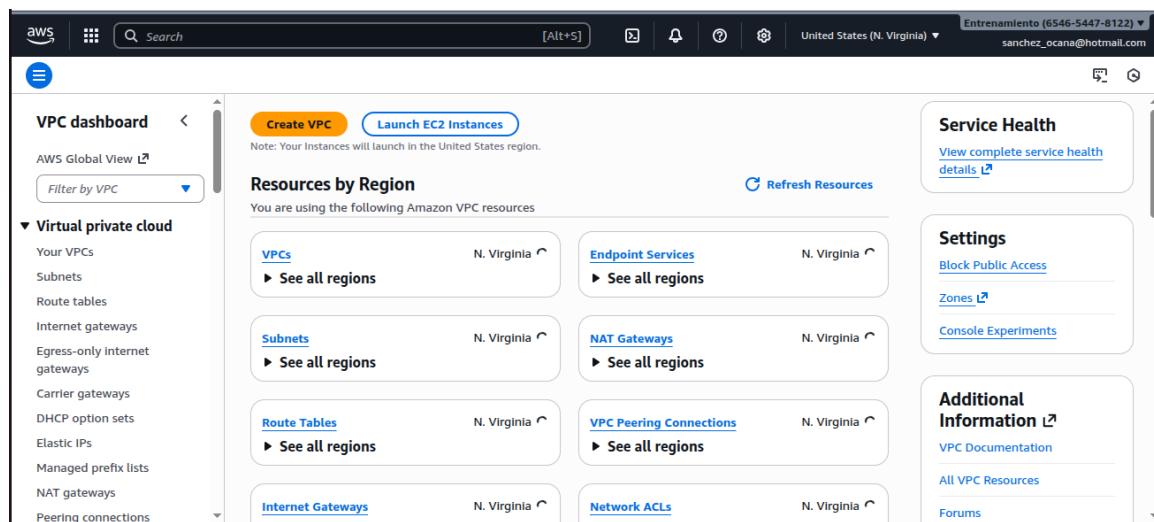
06 de febrero de 2026

1. Introducción

Este laboratorio tiene como objetivo configurar una infraestructura básica de red en AWS, implementando una VPC, subredes públicas y privadas, Internet Gateway, tablas de ruteo, Security Groups, una instancia EC2, Route 53 y CloudFront, garantizando conectividad segura.

2. Creación de la VPC

Se creó una Virtual Private Cloud (VPC) con el nombre demo-vpc-chayanne-sanchez y el bloque CIDR 10.0.0.0/16.



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VPC > Your VPCs > Create VPC

Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

VPC settings

Resources to create [Info](#)

Create only the VPC resource or the VPC and other networking resources.

VPC only VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

IPv4 CIDR block [Info](#)

IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block

IPv4 CIDR

CIDR block size must be between /16 and /28.

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VPC > Your VPCs > [vpc-04909e3996b1a7850](#)

vpc-04909e3996b1a7850 / demo-vpc-chayanne-sanchez

Details [Info](#)

VPC ID vpc-04909e3996b1a7850	State Available	Block Public Access <input type="radio"/> Off	DNS hostnames Disabled
DNS resolution Enabled	Tenancy default	DHCP option set dept-0283128af5af4d7e	Main route table rtb-0a302e8540e0149e3
Main network ACL acl-087d1ba59c3f7b2ad	Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool —
IPv6 CIDR —	Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups Failed to load rule groups	Owner ID 654654478122
Encryption control ID —	Encryption control mode —		

[Resource map](#) | [CIDRs](#) | [Flow logs](#) | [Tags](#) | [Integrations](#)

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VPC > Your VPCs

Your VPCs (6) [Info](#)

You successfully created vpc-04909e3996b1a7850 / demo-vpc-chayanne-sanchez

VPCs [VPC encryption controls](#)

<input type="checkbox"/> Name	VPC ID	State	Encryption c...	Encryption control ..
<input type="checkbox"/> My-vpc-Juancamilo	vpc-046ab71ff4297847e	Available	—	—
<input type="checkbox"/> —	vpc-01ae211f5605ba2	Available	—	—
<input type="checkbox"/> demo-vpc-Julianparra	vpc-0c05abf7da625796d	Available	—	—
<input type="checkbox"/> demo-vpc-AndresAltamar	vpc-04d59f396935ba45f	Available	—	—
<input type="checkbox"/> —	vpc-07df4380c95f9498c	Available	—	—
<input type="checkbox"/> demo-vpc-chayanne-sanchez	vpc-04909e3996b1a7850	Available	—	—

Select a VPC above

3. Creación de Subnet Pública

Se creó una subnet pública llamada public-subnet-1 con el rango 10.0.1.0/24.

4. Creación de Subnet Privada

Se creó una subnet privada llamada private-subnet-chayanne-sanchez con CIDR 10.0.2.0/24.

The screenshot shows the 'Create subnet' page in the AWS VPC console. In the 'VPC' section, the VPC ID is set to 'vpc-04909e3996b1a7850 (demo-vpc-chayanne-sanchez)'. Under 'Associated VPC CIDRs', the IPv4 CIDR is specified as '10.0.0.0/16'. In the 'Subnet settings' section, it says 'Specify the CIDR blocks and Availability Zone for the subnet.' A single subnet is listed: 'Subnet 1 of 1' with the 'Subnet name' field populated. The top navigation bar shows the user is in the United States (Ohio) region with the email 'sanchez_ocana@hotmail.com'.

5. Creación del Internet Gateway

Se creó un Internet Gateway llamado demo-igw-chayanne-sanchez y se asoció a la VPC.

The screenshot shows the 'Internet gateways' page in the AWS VPC console. A success message at the top states: 'The following Internet gateway was created: igw-00b463158559e81e4 - demo-igw-chayanne-sanchez. You can now attach to a VPC to enable the VPC to communicate with the internet.' An 'Attach to a VPC' button is visible. The main card displays the Internet gateway details: ID 'igw-00b463158559e81e4', State 'Detached', VPC ID '—', and Owner '654654478122'. Below this, the 'Tags (1)' section shows a single tag 'Name: demo-igw-chayanne-sanchez'. The left sidebar shows the 'Virtual private cloud' section with various options like 'Your VPCs', 'Subnets', 'Route tables', 'Internet gateways', etc. The 'Internet gateways' option is selected. The top navigation bar shows the user is in the United States (Ohio) region with the email 'sanchez_ocana@hotmail.com'.

6. Configuración de la Tabla de Ruteo Pública

Se configuró una ruta 0.0.0.0/0 hacia el Internet Gateway para permitir acceso público.

The screenshot shows the 'Create subnet' wizard in the AWS VPC console. In the 'VPC' section, the VPC ID is set to 'vpc-04909e3996b1a7850 (demo-vpc-chayanne-sanchez)'. Under 'Associated VPC CIDRs', the IPv4 CIDR is specified as '10.0.0.0/16'. In the 'Subnet settings' section, it says 'Specify the CIDR blocks and Availability Zone for the subnet'. A single subnet is listed: 'Subnet 1 of 1' with the name 'Subnet name'.

7. Configuración de Tabla de Ruteo Privada

La subnet privada se mantuvo sin acceso directo a Internet.

The screenshot shows the 'Subnets' page in the AWS VPC console. A success message at the top states 'You have successfully created 1 subnet: subnet-00e5e329bd490d69c'. The main table displays one subnet entry:

Name	Subnet ID	State	VPC
private-subnet-chayanne-sanchez	subnet-00e5e329bd490d69c	Available	vpc-04909e3996b1a7850 de...

8. Creación del Security Group

Se configuraron reglas de acceso para SSH (22) y HTTP (80).

Create security group Info

A security group acts as a virtual firewall for your instance to control inbound and outbound traffic. To create a new security group, complete the fields below.

Basic details

Security group name Info
demo-sg-chayanne-sanchez

Name cannot be edited after creation.

Description Info
Allows SSH access to developers

VPC Info
vpc-04909e3996b1a7850 (demo-vpc-chayanne-sanchez)

Inbound rules Info

This security group has no inbound rules.

[Add rule](#)

sg-0cc9b7dbc853133c8 - demo-sg-chayanne-sanchez

Details

Security group name <input checked="" type="checkbox"/> demo-sg-chayanne-sanchez	Security group ID <input checked="" type="checkbox"/> sg-0cc9b7dbc853133c8	Description <input checked="" type="checkbox"/> Permitir tráfico web http	VPC ID vpc-04909e3996b1a7850 ↗
Owner <input checked="" type="checkbox"/> 654654478122	Inbound rules count 0 Permission entries	Outbound rules count 2 Permission entries	

[Actions](#)

Inbound rules

9. Lanzamiento de Instancia EC2

Se desplegó una instancia Amazon Linux 2023 con Apache instalado automáticamente usando User Data.

10. Prueba de Acceso por IP Pública

Se validó el acceso web mediante la IP pública de la EC2.

11. Configuración de Route 53

Se creó un dominio público y un Record A apuntando a la IP de la EC2.

12. Configuración de CloudFront

Se creó una distribución CloudFront para mejorar rendimiento y habilitar HTTPS.

13. Limpieza de Recursos

Se eliminaron todos los recursos creados para evitar costos.

14. Conclusión

El laboratorio fortaleció habilidades prácticas en redes AWS, seguridad, conectividad y despliegue en la nube.