

1. Creación de la VPC

The screenshot shows the 'Create VPC' wizard in the AWS Management Console. The 'VPC settings' step is selected. Key configuration options shown include:

- Resources to create:** VPC only (selected).
- Name tag - optional:** demo-vpc-AlejandroMV.
- IPv4 CIDR block:** 10.0.0.0/16.
- IPv6 CIDR block:** No IPv6 CIDR block selected.
- Tenancy:** Default.
- VPC encryption control (\$):** None selected.

Tocó crearla en Oregon, dado que el límite es de 5 por región

The screenshot shows the 'Details' tab for the VPC 'vpc-038344d3d66866f1b'. Key details include:

- VPC ID:** vpc-038344d3d66866f1b
- State:** Available
- Main network ACL:** acl-075b77311285816d2
- IPv6 CIDR (Network border group):** -
- Encryption control ID:** -
- Block Public Access:** Off
- DNS hostnames:** Disabled
- Main route table:** rtb-0416f29dbd200229f
- IPv6 pool:** -
- Owner ID:** 654654478122

The 'Resource map' section shows:

- VPC:** Your AWS virtual network (demo-vpc-AlejandroMV)
- Subnets (0):** Subnets within this VPC
- Route tables (1):** Route network traffic to resources (rtb-0416f29dbd200229f)
- Network Connections (0):** Connections to other networks

2. Creación de la subnet pública

subnet-019dc4a8891de5bc9 / public-subnet-1-AlejandroMV

Details

Subnet ARN	arn:aws:ec2:us-west-2:654654478122:subnet-019dc4a8891de5bc9
IPv4 CIDR	10.0.1.0/24
Availability Zone	usw2-az1 (us-west-2a)
Network ACL	-
Auto-assign customer-owned IPv4 address	No
IPv6 CIDR reservations	-
Resource name DNS AAAA record	Disabled

State

Available

IPv6 CIDR

VPC

Route table

Auto-assign public IPv4 address

IPv4 CIDR reservations

Resource name DNS A record

Block Public Access

Actions

Flow logs

Create Flow log

Logs

No flow logs found

3. Creación internet gateway

Create internet gateway

An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

Internet gateway settings

Name tag

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

demo-igw-AlejandroMV

Tags - optional

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key Value - optional

Add new tag

You can add 49 more tags.

Create internet gateway

La integramos a la VPC

Attach to VPC (igw-02bd7b41d239864ce)

Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs

Select the internet gateway to this VPC.

vpc-038344d3d66866f1b

AWS Command Line Interface command

Attach internet gateway

Internet gateways (3)

Internet gateway igw-02bd7b41d239864ce successfully attached to vpc-038344d3d66866f1b

Name	Internet gateway ID	State	VPC ID	Owner
igw-0cfe8ad2cabbb2694	Attached	vpc-0152831d80ee97aa5	654654478122	
demo-igw-AlejandroMV	Attached	vpc-038344d3d66866f1b demo-vpc-AlejandroMV	654654478122	
igw-09058524e85ba5efb	Detached	-	654654478122	

4. Creamos y configuramos route table

The screenshot shows the AWS VPC 'Create route table' interface. In the 'Route table settings' section, a route is being added with a destination of '10.0.0.0/16' and a target of 'local'. A tag 'public-rt-AlejandroMV' is attached. In the 'Edit routes' section, two routes are listed: 'Route 1' (destination 10.0.0.0/16, target local) and 'Route 2' (destination 0.0.0.0/0, target Internet Gateway). Both routes are active.

Create route table

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.
public-rt-AlejandroMV

VPC
The VPC to use for this route table.
vpc-038544d3d66866f1b (demo-vpc-AlejandroMV)

Tags
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key
Name: public-rt-AlejandroMV
Value - optional: Value: public-rt-AlejandroMV
Remove

Add new tag
You can add 49 more tags.

Create route table

Edit routes

Route 1

Destination	Target	Status
10.0.0.0/16	local	Active

Propagated: No **Route Origin**: CreateRouteTable

Route 2

Destination	Target	Status
0.0.0.0/0	Internet Gateway	-

Propagated: No **Route Origin**: CreateRoute

Add route **Remove**

Cancel **Preview** **Save changes**

Agregamos la tabla de enrutamiento a la subred pública

Subnet route table settings

Route table ID: rtb-0b872fc693c96725a (public-rt-AlejandroMV)

Routes (2)

Destination	Target
10.0.0.0/16	local
0.0.0.0/0	igw-02bd7b41d239864ce

Cancel **Save**

5. Creamos la subred privada

Details

Subnet ID: subnet-09d82e00bce067d38

IPv4 CIDR: 10.0.2.0/24

Availability Zone: usw2-az1 (us-west-2a)

Network ACL: ad-075b77311285816d2

Auto-assign customer-owned IPv4 address: No

IPv6 CIDR reservations: -

Resource name DNS AAAA record: Disabled

Subnet ARN: arn:aws:ec2:us-west-2:654654478122:subnet-09d82e00bce067d38

State: Available

IPv6 CIDR: -

VPC: vpc-038344d3d66866ff1b | demo-vpc-AlejandroMV

Auto-assign public IPv4 address: No

Outpost ID: -

Hostname type: IP name

Owner: 654654478122

Block Public Access: Off

IPv4 CIDR association ID: -

Route table: rtb-0416f2dbd200229f

Auto-assign IPv6 address: No

IPv4 CIDR reservations: -

Resource name DNS A record: Disabled

6. Creamos la route table para la red privada

Esta no tiene acceso a internet a través de la Internet Gateway

The screenshot shows the AWS VPC Route Tables page. The left sidebar includes sections for Virtual private cloud (Your VPCs, Subnets, Route tables), Security (Security groups, Network ACLs, PrivateLink and Lattice), and a bottom section for PrivateLink and Lattice. The main content area displays a table titled 'Route tables (1/11) info' with columns for Name, Route table ID, Explicit subnet assoc..., Edge associations, Main, VPC, and Owner ID. A single row is selected: 'private-rt-Alejandro MV' (rtb-0ca2f591e46cf6d16). The URL at the bottom is rtb-0ca2f591e46cf6d16 / private-rt-Alejandro MV.

Asociamos la tabla a la subred privada

The screenshot shows the 'Edit route table association' page. The top navigation bar shows 'aws' and 'VPC > Subnets > subnet-09d82e00bce067d38 > Edit route table association'. The main content area has two sections: 'Subnet route table settings' (with 'Subnet ID' set to 'subnet-09d82e00bce067d38' and 'Route table ID' set to 'rtb-0ca2f591e46cf6d16 (private-rt-Alejandro MV)') and 'Routes (1)' (with one entry: 'Destination' 10.0.0.0/16 and 'Target' local). The URL at the bottom is rtb-0ca2f591e46cf6d16 / private-rt-Alejandro MV.

7. Creamos un grupo de seguridad

The screenshot shows the AWS Security Groups page. The left sidebar includes sections for Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways, Egress-only internet gateways, Carrier gateways, DHCP option sets, Elastic IPs, Managed prefix lists, NAT Gateways, Peering connections, Route servers), Security (Network ACLs, Security groups), and a bottom section for PrivateLink and Lattice. The main content area shows the details of a security group named 'sg-0e583c9588bc04ba6 - demo-sg-AlejandroMV'. The 'Details' section shows the security group name, owner (654654478122), and a description ('Grupo de seguridad laboratorio VPC'). The 'Inbound rules' tab is selected, showing a table with columns for Name, Security group rule ID, IP version, Type, Protocol, Port range, Source, and Description. The message 'No security group rules found' is displayed. The URL at the bottom is sg-0e583c9588bc04ba6 - demo-sg-AlejandroMV.

Le añadimos las reglas de entrada y salida al grupo de seguridad

Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description
-	SSH	TCP	22	My IP	Regla para conexión por SSH con n
-	HTTP	TCP	80	Anywhere	Regla para que cualquier solicitud I
			0.0.0.0/0		Regla para que cualquier solicitud HTTP sea aceptada

Add rule

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

Cancel Preview changes Save rules

sg-0e583c9588bc04ba6 - demo-sg-AlejandroMV

Details

Security group name	Security group ID	Description	VPC ID
demo-sg-AlejandroMV	sg-0e583c9588bc04ba6	Grupo de seguridad laboratorio VPC	vpc-038344d3d66866f1b
Owner	654654478122	Inbound rules count	2 Permission entries
		Outbound rules count	1 Permission entry

Inbound rules Outbound rules Sharing VPC associations Related resources - new Tags

Inbound rules (2)

Name	Security group rule ID	IP version	Type	Protocol	Port range	Source	Description
sgr-0b030277a9dbad5e1	sgr-0b030277a9dbad5e1	IPv4	SSH	TCP	22	0.0.0.0/0	Regla_paraConexion...
sgr-0da2fb258ac7cf817	sgr-0da2fb258ac7cf817	IPv4	HTTP	TCP	80	0.0.0.0/0	Regla_paraQueCualquier...

8. Lanzamos una EC2 con user data (scrypt)

EC2

Instances

Instance summary for i-09ad4080f3354e80a (demo-ec2-AlejandroMV)

Updated less than a minute ago

Instance ID	44.255.108.99 open address
IPv6 address	-
Hostname type	IP name: ip-10-0-1-140.us-west-2.compute.internal
Answer private resource DNS name	-
Auto-assigned IP address	44.255.108.99 [Public IP]
IAM role	-
IMDSv2	Required
Operator	-
Public IP address	44.255.108.99 open address
Private IP DNS name (IPv4 only)	ip-10-0-1-140.us-west-2.compute.internal
Instance type	t3.micro
VPC ID	vpc-038344d3d66866f1b (demo-vpc-AlejandroMV)
Subnet ID	subnet-019dc4a8891de5bc9 (public-subnet-1-AlejandroMV)
Instance ARN	arn:aws:ec2:us-west-2:654654478122:instance/i-09ad4080f3354e80a
Platform details	Amazon Linux 2

Details Status and alarms Monitoring Security Networking Storage Tags

Instance details

AMI ID

Monitoring

Vemos que funciona correctamente



9. Crear servidor DNS (route 53)

No se pudo hacer

10. Crear CloudFront

No se pudo hacer

11.

Borramos todos los recursos

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 IP	Elastic IP
demo-vpc-san...	i-0c12553e2ec4f688d	Stopped	t3.micro	-	An unexpected error occurred	us-west-2a	-	-	-
demo-ec2-dv...	i-065689c4d835f1422	Terminated	t3.micro	-	An unexpected error occurred	us-west-2a	-	-	-
demo-ec2-sajo...	i-0ba86aa2ed09e408	Running	t3.micro	3/3 checks passed	An unexpected error occurred	us-west-2a	-	-	-
demo-ec2-Ale...	i-09ad4080f3354e80a	Shutting-down	t3.micro	3/3 checks passed	An unexpected error occurred	us-west-2a	-	44.255.108.99	-

Name	VPC ID	State	Encryption controls	Encryption control	Block Public	IPv4 CIDR	IPv6 CIDR
vpc-santiago-jaramillo	vpc-00d4498489389e7d	Available	-	-	Off	10.0.0.0/24	-
-	vpc-0152831d80ee97aa5	Available	-	-	Off	172.31.0.0/16	-
-	vpc-0c964ff5c0601d48d	Available	-	-	Off	10.0.0.0/16	-