



Build a Virtual Private Cloud



sru anu

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.

IPv6 CIDR block Info
 No IPv6 CIDR block
 IPAM-allocated IPv6 CIDR block
 Amazon-provided IPv6 CIDR block
 IPv6 CIDR owned by me

Tenancy Info



Introducing Today's Project!

What is Amazon VPC?

Amazon VPC (Virtual Private Cloud) lets you create a private, isolated network in the AWS cloud. It enhances security and control over resources and traffic.

How I used Amazon VPC in this project

In today's project, I used Amazon VPC to create a secure, isolated environment. I configured subnets, route tables, and security groups for controlled access and improved resource management.

One thing I didn't expect in this project was...

One unexpected aspect of this project was the complexity of configuring security groups and route tables in Amazon VPC. It required careful planning to ensure proper access control and resource connectivity.

This project took me...

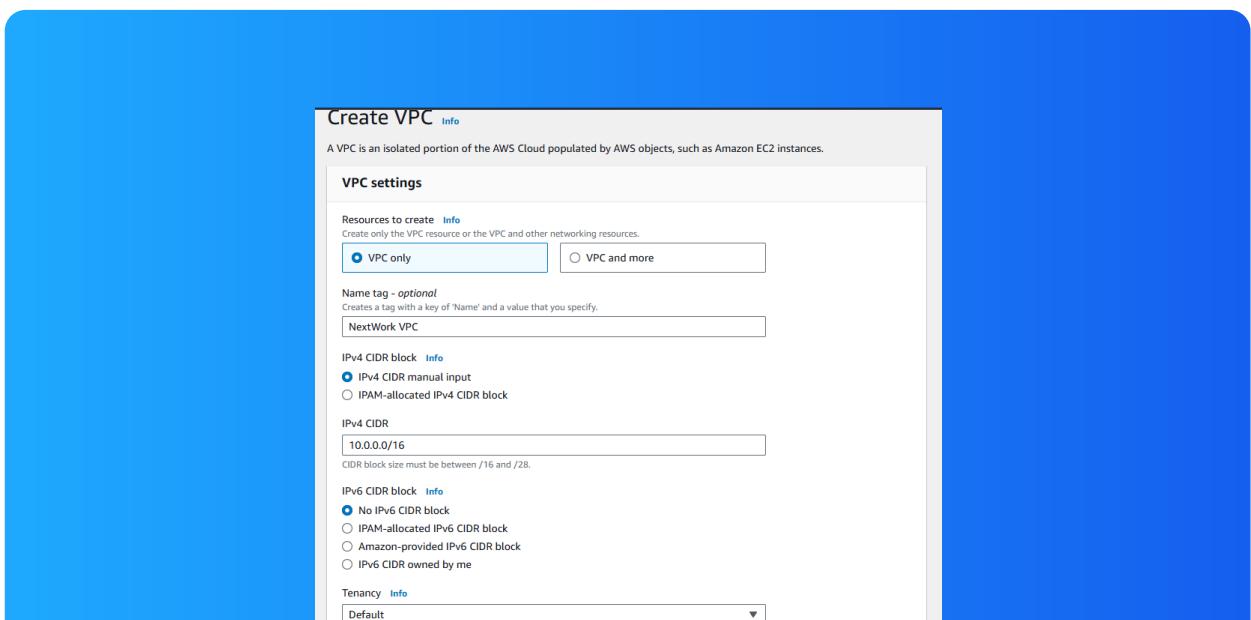
This project took me about 1 hour to complete, including setting up the Amazon VPC, configuring subnets, and fine-tuning security settings for optimal performance and security.

Virtual Private Clouds (VPCs)

VPCs are isolated networks within AWS, letting you manage resources securely. They allow custom network setups, traffic control, and enhanced security, mimicking an on-premises data center in the cloud.

There was already a default VPC in my account ever since my AWS account was created. This is because AWS provides a default VPC for quick setup, allowing resources to be launched in a basic network environment without needing custom configuration.

To set up my VPC, I had to define an IPv4 CIDR, which means defining a range of IP addresses available for resources in the VPC. CIDR notation helps segment the network into smaller subnets by specifying an IP range, like 10.0.0.0/16.



Subnets

Subnets are segments within a VPC that organize resources across zones. They can be public, for internet access, or private for internal use, enhancing network control and security within the VPC.

There are already subnets existing in my account, one for every availability zone in each AWS region. AWS provides these by default to simplify network setup, enabling instant resource deployment.

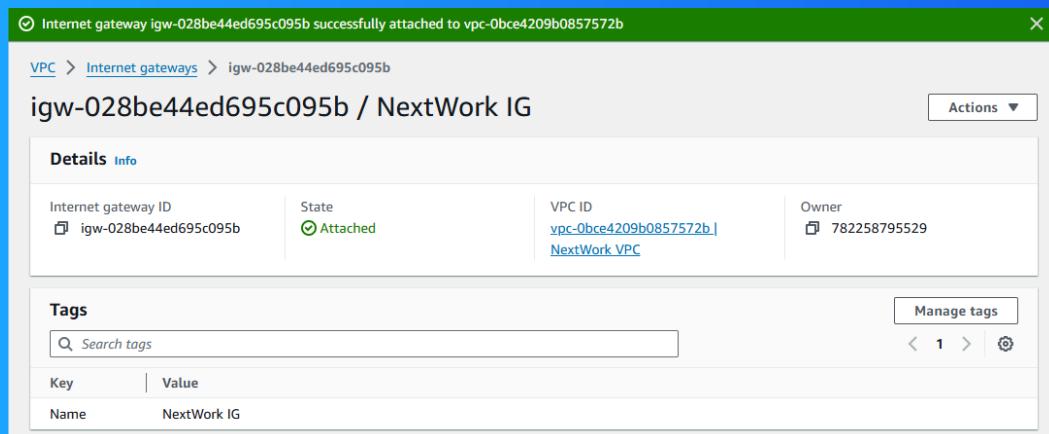
I named my subnet Public 1, but that doesn't automatically make my subnet a public subnet. For a subnet to be considered public, it has to be associated with an internet gateway, allowing external network access.

The screenshot shows the 'Edit subnet settings' page for a specific subnet. The top navigation bar includes links for VPC, Subnets, the specific subnet ID, and 'Edit subnet settings'. The main section is titled 'Edit subnet settings' with a 'Info' link. It displays the subnet details: Subnet ID is 'subnet-038b6bb5dbdbc658e' and Name is 'public 1'. Below this, there's a section for 'Auto-assign IP settings' with an 'Info' link. It explains that AWS can automatically assign a public IPv4 or IPv6 address. Two options are shown: 'Enable auto-assign public IPv4 address' (which is checked) and 'Enable auto-assign customer-owned IPv4 address' (which is disabled). A note states 'Option disabled because no customer owned pools found.'

Internet gateways

Internet gateways are AWS resources that connect a Virtual Private Cloud (VPC) to the internet, enabling instances in public subnets to send and receive traffic from outside networks.

Attaching an internet gateway to a VPC means the VPC can route traffic to and from the internet, allowing resources in public subnets to communicate externally when configured with proper routing and permissions.





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