



Build a Virtual Private Cloud (VPC)

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The screenshot shows the 'Create VPC' configuration page in the AWS Management Console. The top navigation bar includes the AWS logo, search bar, and various navigation links. The main content area is titled 'Create VPC' with a 'Info' link. A sub-header 'A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.' is present. The configuration is divided into several sections:

- VPC settings**:
 - Resources to create**: Info. A note says "Create only the VPC resource or the VPC and other networking resources." Two options are shown: VPC only and VPC and more.
 - Name tag - optional**: A text input field containing "louismoyo VPC".
 - IPv4 CIDR block**: Info. A note says "CIDR block size must be between /16 and /28." An input field contains "10.0.0.0/16".
 - IPv6 CIDR block**: Info. A note says "No IPv6 CIDR block assigned." Four options are listed: No IPv6 CIDR block, IPAM-allocated IPv6 CIDR block, Amazon-provided IPv6 CIDR block, and IPv6 CIDR owned by me.
- Tenancy**: Info. A dropdown menu is set to "Default".



Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a private, isolated section of the AWS cloud where you can run resources securely. It's useful because it gives full control over networking, security, and connectivity.

How I used Amazon VPC in this project

In today's project, I used Amazon VPC to create a secure network, add a public subnet, and connect it to the internet for hosting resources.

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

One thing I didn't expect in this project was how easy it is to create a VPC and subnet with just a few settings.

This project took me...

This project took me about 1 hour.



Virtual Private Clouds (VPCs)

VPCs are private, isolated sections of the cloud where you can run resources securely. They let you control network settings, organize resources, and manage how they communicate without exposing them to the public internet.

There was already a default VPC in my account ever since my AWS account was created. This is because AWS sets one up automatically so you can launch resources right away without creating your own network.

To set up my VPC, I had to define an IPv4 CIDR block, which is a way of specifying a range of IPv4 addresses and how many of them can be used in the network.



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Subnets

Subnets are smaller sections of a VPC that let you organise and control how resources are connected. There are already subnets existing in my account, one for every Availability Zone in the default VPC.

Once I created my subnet, I enabled auto-assign public IPv4 addresses. This setting makes sure any new instance in the subnet automatically gets a public IP so it can be accessed from the internet without extra configuration.

The difference between public and private subnets is that public subnets have internet access, while private subnets do not. For a subnet to be considered public, it must be connected to an internet gateway, which mine isn't yet..



The screenshot shows a list of subnets with the following details:

Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR	IPv6 CIDR
Public 1	subnet-0c5adb416fda3e5a4	Available	vpc-076d0c5b71f4a54eb Louis...	Off	10.0.0.0/24	-



Internet gateways

Internet gateways are components that connect a VPC to the internet, allowing resources in public subnets to send and receive traffic from outside the VPC.

Attaching an internet gateway to a VPC means the resources in that VPC can send and receive traffic from the internet. If I missed this step, my public subnet wouldn't have internet access.

Internet gateway igw-0e3ed2ff3c64d69f3 successfully attached to vpc-076d0c5b71f4a54eb					
Internet gateways (2) Info					
<input type="text"/> Find internet gateways by attribute or tag					
Name	Internet gateway ID	State	VPC ID	Owner	
-	igw-0b2d2818c160338ed	Attached	vpc-0f35a84f1e27356de	756716632322	
louismoyo IG	igw-0e3ed2ff3c64d69f3	Attached	vpc-076d0c5b71f4a54eb louismoyo VPC	756716632322	



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