



Build a Virtual Private Cloud (VPC)



mohammed Furqanuddin

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.
NextWork VPC

IPv4 CIDR block [Info](#)
 IPv4 CIDR manual input IPAM-allocated IPv4 CIDR block
10.0.0.0/16
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](#)
Default



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Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a private network in AWS. It's useful because it lets you control IPs, subnets, routing, and security for your resources.

How I used Amazon VPC in this project

In today's project, I used Amazon VPC to create my own private network, divide it into a subnet, and connect it to the internet with an Internet Gateway.

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

One thing I didn't expect in this project was that every AWS account already comes with a default VPC and subnets, so I could launch resources right away without creating one from scratch.

This project took me...

This project took me about 40 minutes to complete.

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Virtual Private Clouds (VPCs)

VPC's are our Own Private Network inside AWS where you can run and secure resources like servers, database and Apps.

AWS provides a default VPC in every account so you can quickly launch resources (like EC2 instances) without needing to set up networking from scratch. It ensures you have a ready-to-use network environment with subnets, routing, and internet access.

An IPv4 CIDR block is a range of IP addresses that you assign to your VPC. It defines the “address space” your VPC can use for its resources (like EC2 instances or subnets).

The screenshot shows the 'VPC settings' configuration page for creating a new VPC. The 'Resources to create' section is set to 'VPC only'. A 'Name tag - optional' field contains 'NextWork VPC'. Under 'IPv4 CIDR block', the value '10.0.0.0/16' is entered, with a note that the CIDR block size must be between /16 and /28. The 'IPv6 CIDR block' section is set to 'No IPv6 CIDR block'. The 'Tenancy' dropdown is set to 'Default'.

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Subnets

Subnets are smaller sections of a VPC's IP range used to organize and connect resources. In the default VPC, there's already one subnet per Availability Zone so you can launch resources right away.

Once I created my subnet, I enabled auto-assign public IPv4 addresses. This setting makes sure new resources (like EC2 instances) get a public IP, so they can be reached from the internet.

A subnet is public only if it has a route to an Internet Gateway. Without that, it's private.

The screenshot shows the AWS Subnets page. At the top, a green success message box displays: "You have successfully changed subnet settings: Enable auto-assign public IPv4 address". Below the message, the title "Subnets (1) [Info](#)" is shown. To the right of the title are buttons for "Actions" and "Create subnet". A search bar with placeholder text "Find subnets by attribute or tag" and a "Clear filters" button are also present. The main content area contains a table with one row of data. The columns are: Name, Subnet ID, State, VPC, Block Public..., and IPv4 CIDR. The single row shows "Public 1" as the Name, "subnet-0008e7831b5e84551" as the Subnet ID, "Available" as the State, "vpc-0ff50ccf7e5fe467d | NextW..." as the VPC, "Off" as the Block Public... setting, and "10.0.0.0/24" as the IPv4 CIDR. The table has a header row with sorting icons and a footer row with navigation arrows and a refresh icon.

Name	Subnet ID	State	VPC	Block Public...	IPv4 CIDR
Public 1	subnet-0008e7831b5e84551	Available	vpc-0ff50ccf7e5fe467d NextW...	Off	10.0.0.0/24

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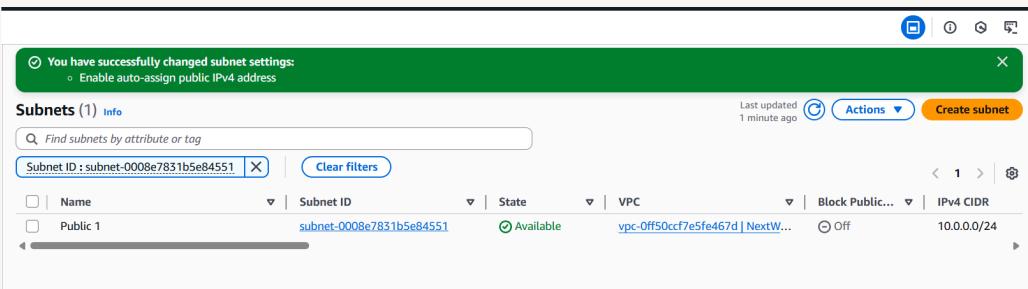
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Internet gateways

Internet gateways connects the VPC and the Internet. The Internet gateway are the key to making applications available on the Internet.

In this step, we're attaching an Internet Gateway to our VPC, which allows resources in public subnets to send and receive traffic from the internet.





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