



Build a Virtual Private Cloud (VPC)

D

Duc Thai

VPC > Your VPCs > Create VPC

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
IPv4 CIDR
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

Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a private virtual network in AWS where you set IP ranges, subnets, routes, and firewall rules. This helps organizations isolate resources, secure traffic, and control internet or on-prem.

How I used Amazon VPC in this project

In today's project, I used Amazon VPC to give my resources access to the public internet, define IP ranges for my public subnet.

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

One thing I didn't expect in this project was even tho public instances have public IPs that cannot connect to the public internet without an Internet Gateway attached to the VPC.

This project took me...

This project took me 1 hour.

Virtual Private Clouds (VPCs)

VPCs are logically isolated virtual networks in the cloud where you define IP ranges, subnets, route tables, gateways, and security rules. It provides secure isolation, traffic control, segmentation, and connectivity to the internet or on-prem

There was already a default VPC in my account ever since my AWS account was created. This is because AWS created one for me so I can launch resources that are private to me without knowing how to set up a VPC at first.

To set up my VPC, I had to define an IPv4 CIDR block, which is the VPC's IP address range in CIDR notation (e.g., 10.0.0.0/16). It defines how many IPs the VPC has (prefix length = size), must not overlap other networks.

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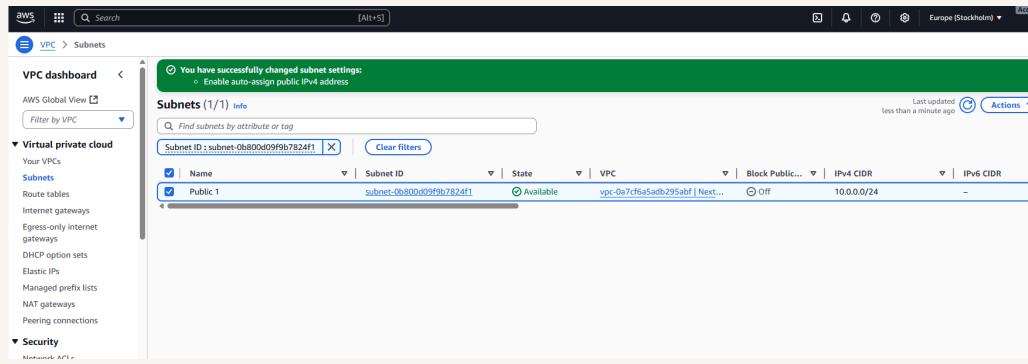
Tenancy [Info](#)
Default

Subnets

Subnets are segments of a VPC that allocate IP ranges and control routing/security for resources. There are already subnets existing in my account, one for every Availability Zone in the region - to multi-AZ placement and HA.

Once I created my subnet, I enabled auto-assign public IPv4 address. This setting makes sure the resource in the subnet will have the public Ipv4 address right away so that it can connect to the public internet.

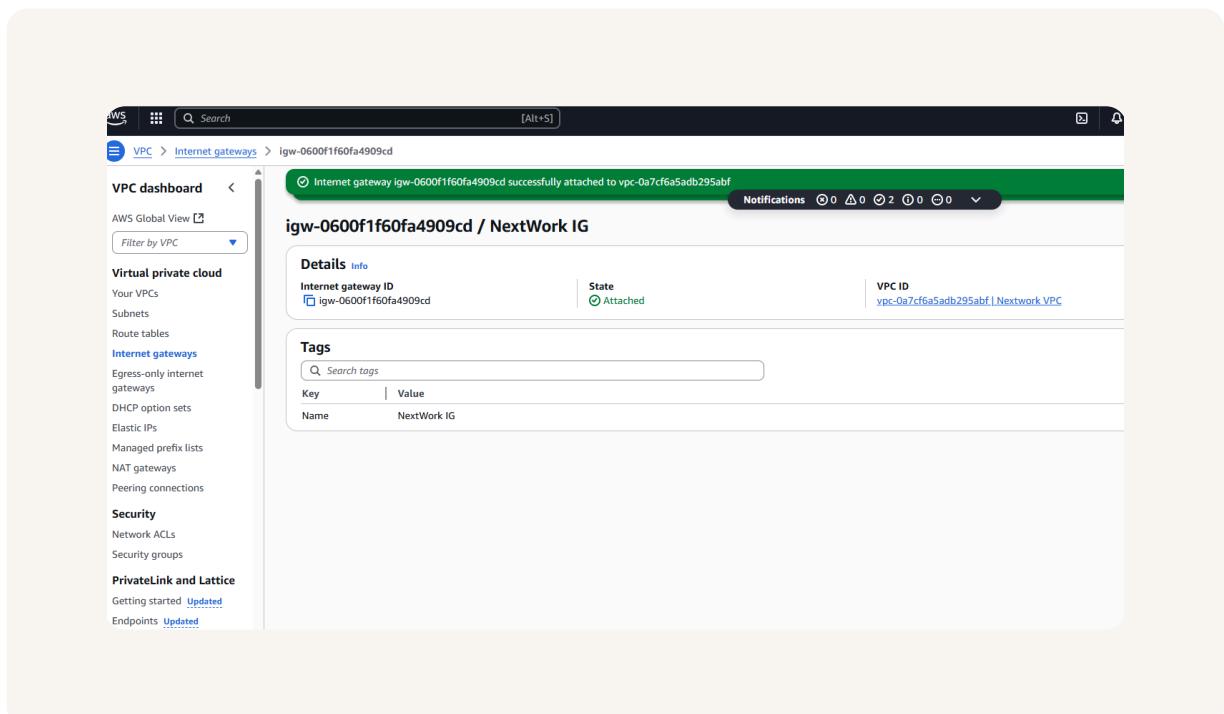
The difference between public and private subnets are public subnet can be accessed through the public internet while private are not. For a subnet to be considered public, it has to connect to an internet gateway.



Internet gateways

Internet gateways are a VPC component that lets resources talk to the internet.

Attaching an internet gateway to a VPC means resources in my VPC can now access the internet. Stuffs with public IP addresses also become accessible to users. If I missed this step public instances won't reach or be reached from the internet.





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