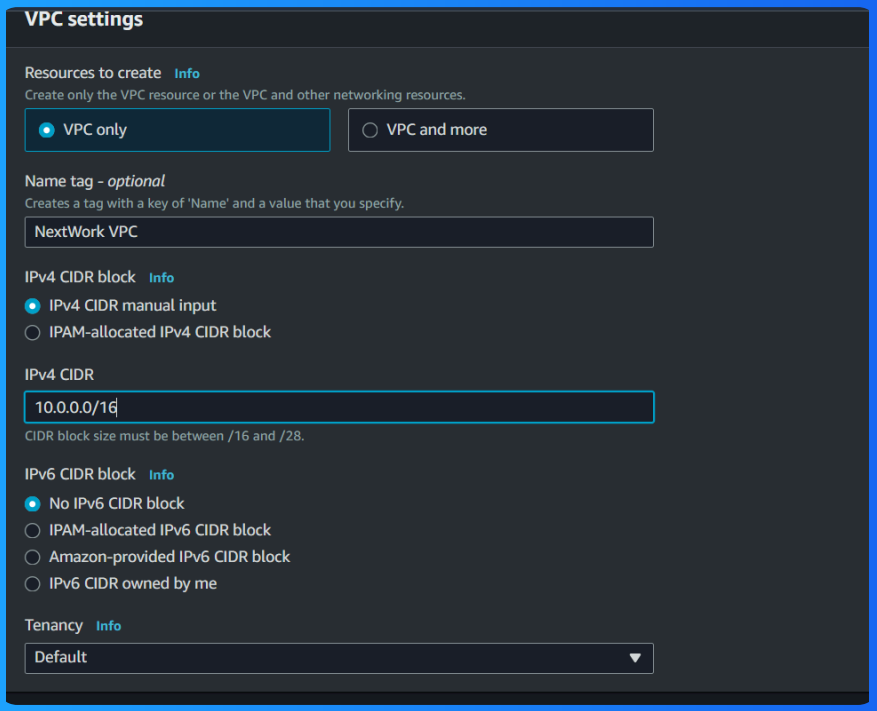
NextWork.org

Build a Virtual Private Cloud

Justin haynes



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Introducing Today's Project!

What is Amazon VPC?

Amazon VPC is a service that lets you create an isolated, customizable network within AWS. You can define your IP address ranges, subnets, and configure routing tables, gateways, and security settings to control network traffic.

How I used Amazon VPC in this project

I created an Amazon VPC by defining an IPv4 CIDR block for my network. I set up a public subnet, enabled auto-assigned public IPs for internet access, and attached an internet gateway to allow secure communication between my resources.

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

One thing I didn’t expect in this project was how simple it was to configure an internet gateway and connect it to the VPC. I thought setting up external access for resources would be more complex, but AWS made it surprisingly easy and intuitive.

This project took me...

This project took around 1.5 hours to complete. Setting up the VPC, creating subnets, and attaching the internet gateway was relatively quick, but I took extra time to test and ensure everything was configured correctly.

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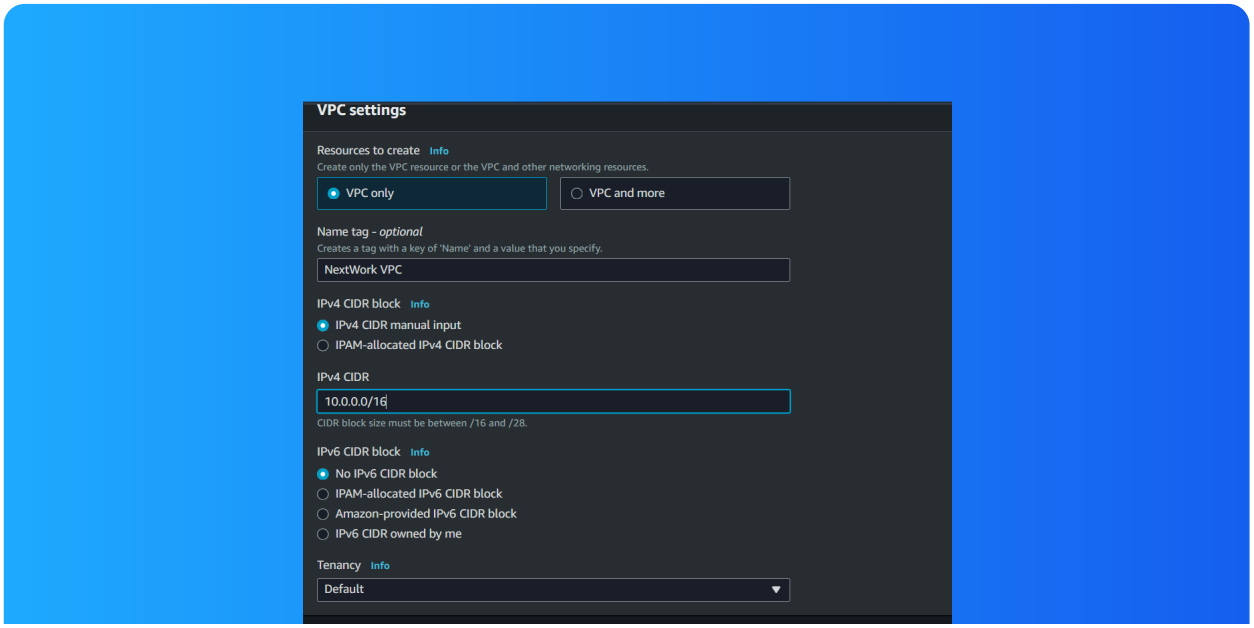
Virtual Private Clouds (VPCs)

VPCs are private, isolated sections of the AWS cloud where you can launch AWS resources like EC2 instances, databases, and storage with full control over your networking environment.

There was already a default VPC in my account ever since my AWS account was created. This is because it enables a quick start up, alowing me to launch resources and test AWS services without needing to set up a VPC from scratch.

To set up my VPC, I had to define an IPv4 CIDR, which means choosing a range of IP addresses, like 10.0.0.0/16. The /16 shows how big the network is, telling AWS how many IP addresses are reserved for my VPC to manage traffic and resources.



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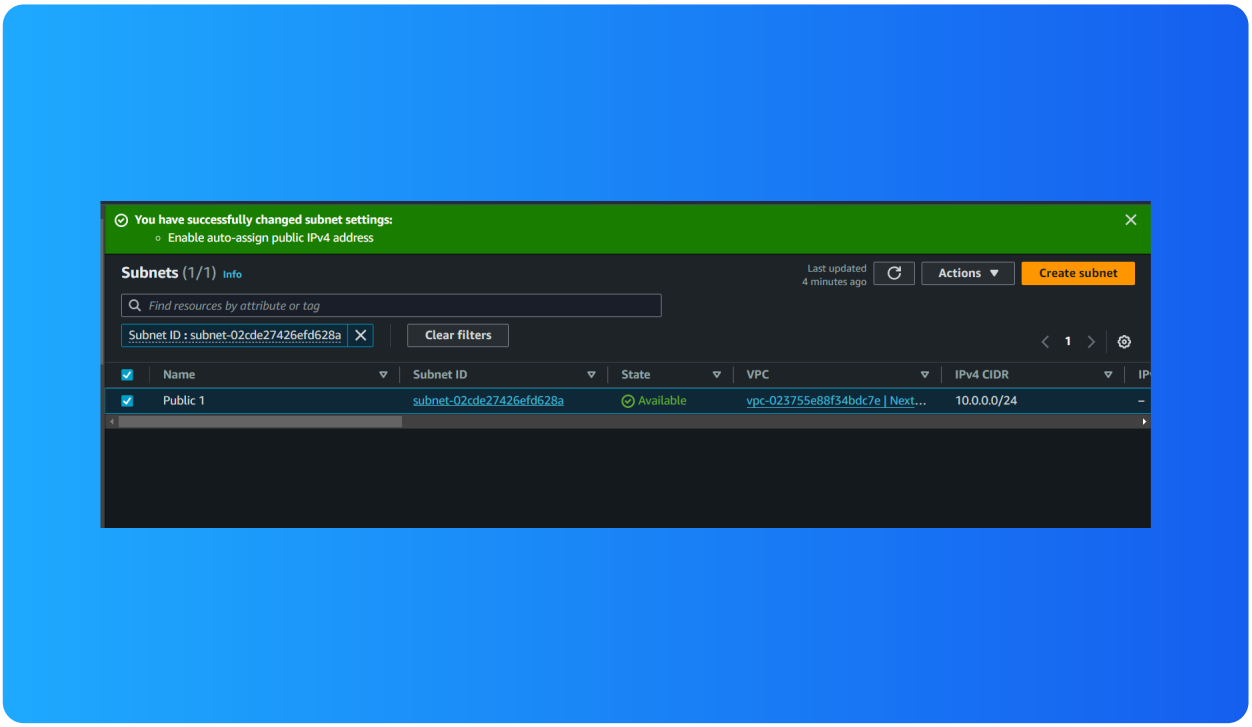
Subnets

Subnets are subsections of my VPC, where I can launch AWS resources. It is the equivalent of a neighborhood being a subsection of a city.

There are already subnets existing in my account, one for every Zone in the Region that i set up my VPC. My closest region availabilty was configured as Canada Central

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 have a route to an Internet Gateway.



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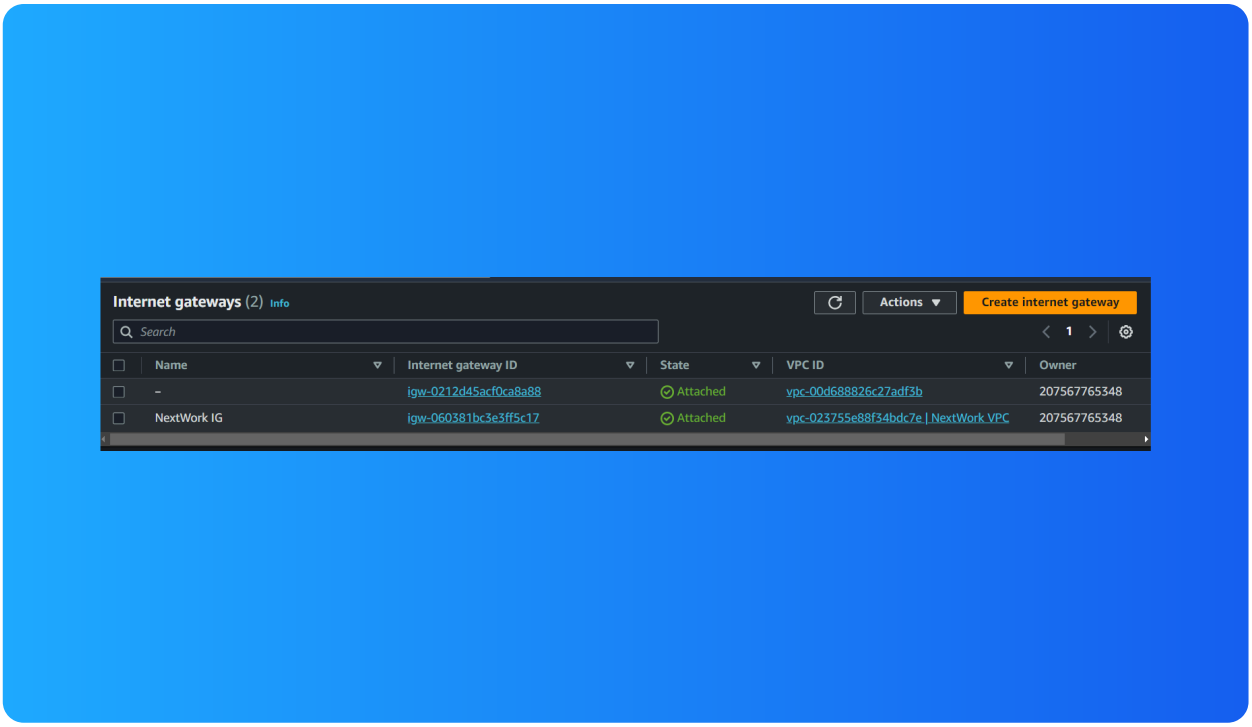
Internet gateways

Internet gateways are the key VPC component that allows internet access for the resources in my VPC or Subnet. It is also how public users can access my resources in a public subnet.

Attaching an internet gateway to a VPC means resources in your VPC will now have access to the internet. The EC2 instances with public IP addresses for users, so your applications hosted on those servers will be public as well.



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