



# Build a Virtual Private Cloud



Paul Botchwey

**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](#)



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# Introducing Today's Project!

## What is Amazon VPC?

enables users to create isolated network environments within AWS, where they can define subnets, and gateways for resource access . It's useful for controlling network settings, and managing resources in a virtual network environment.

## How I used Amazon VPC in this project

I created a custom VPC, set up subnets, and attached an internet gateway for public access.

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

I didn't expect the ease of setting up the default VPC.

## This project took me...

It took around 20 minutes for the setup and configuration.



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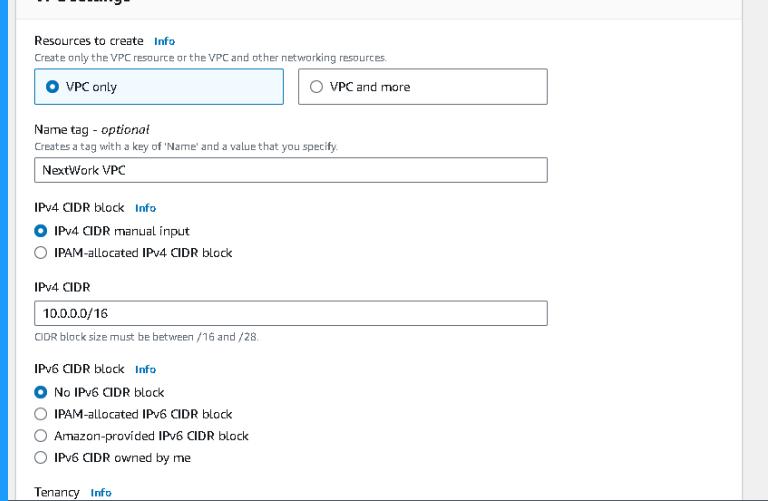
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# Virtual Private Clouds (VPCs)

VPCs are private clouds where you software resources can be kept for you

There was already a default VPC in my account ever since my AWS account was created. This is because AWS creates a default VPC in each new region to simplify network setup for users. This allow instances to connect directly to the internet.

To set up my VPC, I had to define an IPv4 CIDR, which means a range of IP addresses used to /16, organize resources within the network.





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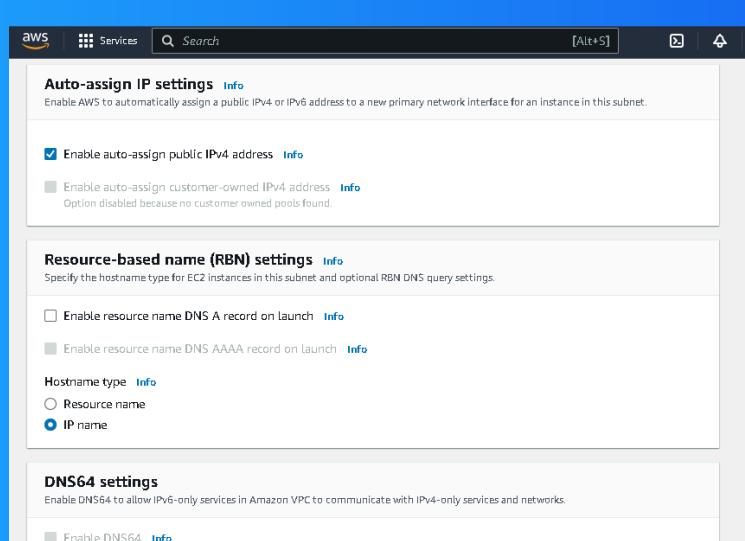
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# Subnets

Subnets are subdivisions of a VPC's IP range to segment and organize resources by regions or zones.

There are already subnets existing in my account, one for every availability zone in the default VPC.

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 routed to an internet gateway and have its route table configured for external traffic.





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# Internet gateways

Internet gateways are components that connect a VPC to the internet, enabling resources to communicate externally.

Attaching an internet gateway to a VPC means allowing internet access to public subnets within the VPC.

**Create internet gateway** Info

An Internet gateway is a virtual router that connects a VPC to the internet. To create a new Internet gateway specify the name for the gateway below.

**Internet gateway settings**

**Name tag**  
Creates a tag with a key of 'Name' and a value that you specify.

**Tags - optional**  
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

| Key  | Value - optional  |
|--|---|
| <input type="text" value="Name"/> <input type="button" value="X"/> | <input type="text" value="NextWork IG"/> <input type="button" value="X"/> <input type="button" value="Remove"/> |

**Add new tag**  
You can add 49 more tags.



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