



Build a Virtual Private Cloud



Arijit Naskar

Create VPC Info

A VPC is an isolated portion of the AWS Cloud populated by AWS objects, such as Amazon EC2 instances.

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.



Introducing Today's Project!

What is Amazon VPC?

Amazon Virtual Private Cloud (VPC) is a customizable network space in AWS that allows you to launch AWS resources in a virtual network. Developers and teams use Amazon VPC because it offers isolation, security, and control over network configurations.

How I used Amazon VPC in this project

I'm using Amazon VPC in this project to demonstrate how to create a customizable network space in AWS, set up subnets, and attach an internet gateway. This tutorial aims to provide a step-by-step guide for enabling auto-assign public IPs.

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

One thing I didn't expect in this project "That we can check default subnets Region wise, Like if I have Three Availability Zones then I already have Three default subnets, Four Availability Zones then Four subnets".

This project took me...

The project took me less than an hour to complete. Documentation took me less than an hour to write as well.

Virtual Private Clouds (VPCs)

VPCs are Isolated section of the AWS Cloud that help to keep my AWS resources private and secure.

There was already a default VPC in my account ever since my AWS account was created. This is because AWS has set up a default VPC to allow me to deploy resources like EC2 instances/RDS database right away (without having to create my own VPC).

To set up my VPC, I had to define an IPv4 CIDR, which means a range of IP addresses that my VPC can allocate to the resources deployed into my VPC.

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Subnets

Subnets are subsections of my VPC, just like how neighbourhoods are subsections of a city.

There are already subnets existing in my account, one for every Availability Zone in the Region that I've set up my VPC in. Since my region is Mumbai (ap-south-1). Which has Three Availability Zones, I have Three default subnets already.

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.

The screenshot shows a table titled "Subnets (1/4) Info". The table has columns: Name, Subnet ID, State, and VPC. There are four rows of data, each with a checkbox column. The fifth row, which is highlighted with a blue background, contains a checked checkbox, the name "Public 1", the Subnet ID "subnet-0ea1c6b4613b41314", the state "Available", and the VPC "vpc-03c1f0d63f76e36f9 | Next...".

Subnets (1/4) Info				
<input type="text"/> Find resources by attribute or tag				
	Name	Subnet ID	State	VPC
<input type="checkbox"/>	-	subnet-096113d05e49e2652	Available	vpc-059e89ecccd96416d
<input type="checkbox"/>	-	subnet-0c6732df961dcc2b9	Available	vpc-059e89ecccd96416d
<input type="checkbox"/>	-	subnet-0a9c5b169fd1564eb	Available	vpc-059e89ecccd96416d
<input checked="" type="checkbox"/>	Public 1	subnet-0ea1c6b4613b41314	Available	vpc-03c1f0d63f76e36f9 Next...

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Internet gateways

Internet gateways are the key VPC components that allows Internet access for the resources in my VPC/subnet. An internet gateway is also how users in the public can access my resources in a public subnet.

Attaching an internet gateway to a VPC means Your VPC can now access the internet. The EC2 instances with public IP addresses also become accessible to users, so your applications hosted on those servers become public too.

Internet gateways (2) Info			
<input type="text"/> Search			
	Name	Internet gateway ID	State
<input type="checkbox"/>	-	igw-0dd63410cefc875b4	Attached
<input type="checkbox"/>	NextWork IG	igw-0417079ad2591f758	Attached



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