



Terraform: AWS VPC Introduction

Terraform : Deployment Automation

- Amazon Virtual Private Cloud (Amazon VPC) enables you to launch AWS resources into a virtual network that you've defined.
- Amazon VPC is the networking layer for Amazon EC2 Instances.
- For Fresh account Amazon have **default** VPC Network.
- Best Practice to always create your own VPC with your own Settings and Configuration.

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- Few Key Points and Terminology -
- **Virtual private cloud (VPC)** — A virtual network dedicated to your AWS account.
- **Subnet** — A range of IP addresses in your VPC.
- **Route table** — A set of rules, called routes, that are used to determine where network traffic is directed.
- **Internet gateway** — A gateway that you attach to your VPC to enable communication between resources in your VPC and the internet.
- **VPC endpoint** — Enables you to privately connect your VPC to supported AWS services and VPC endpoint services powered by PrivateLink without requiring an internet gateway, NAT device, VPN connection, or AWS Direct Connect connection.

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- **What user can do with VPC -**
- Launch instances in a subnet of your choosing. You can choose our own subnet addressing.
- You can assign custom IP address ranges in each subnet.
- You can configure route tables between subnets.
- You can create an internet gateway and attach it to our VPC.
- It provides much better security control over your AWS resources.
- You can assign security groups to individual instances.
- You also have subnet network access control lists (ACLs).

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- For Small or Medium Setup One VPC will be enough.
- An Instance Launched in one VPC can never communicate to Instance Launched in another VPC via **Private IP**.
- Public IP is must to setup the inter VPC communication.
- Two VPCs can be linked via PVC Peering.

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- **VPC Peering -**
- VPC Peering is a networking connection that allows you to connect one VPC with another VPC through a direct network route using private IP addresses.
- Instances behave as if they were on the same private network.
- You can peer VPC's with other AWS accounts as well as other VPCs in the same account.
- Peering is in a star configuration, i.e., 1 VPC peers other 4 VPCs.
- You can peer between regions. Suppose you have one VPC in one region and other VPC in another region, then you can peer the VPCs between different regions.
- One VPC can be connected via 1 or more VPCs.

Will see you in Next Lecture...

Thank you!

A close-up photograph of a hand holding a black marker, writing the words 'Thank you!' in a cursive script on a white surface. The hand is positioned on the right side of the frame, with the fingers gripping the marker. The text is written in a dark, fluid cursive style.

See you in next lecture ...