

Chapter 8 : VPC Overview

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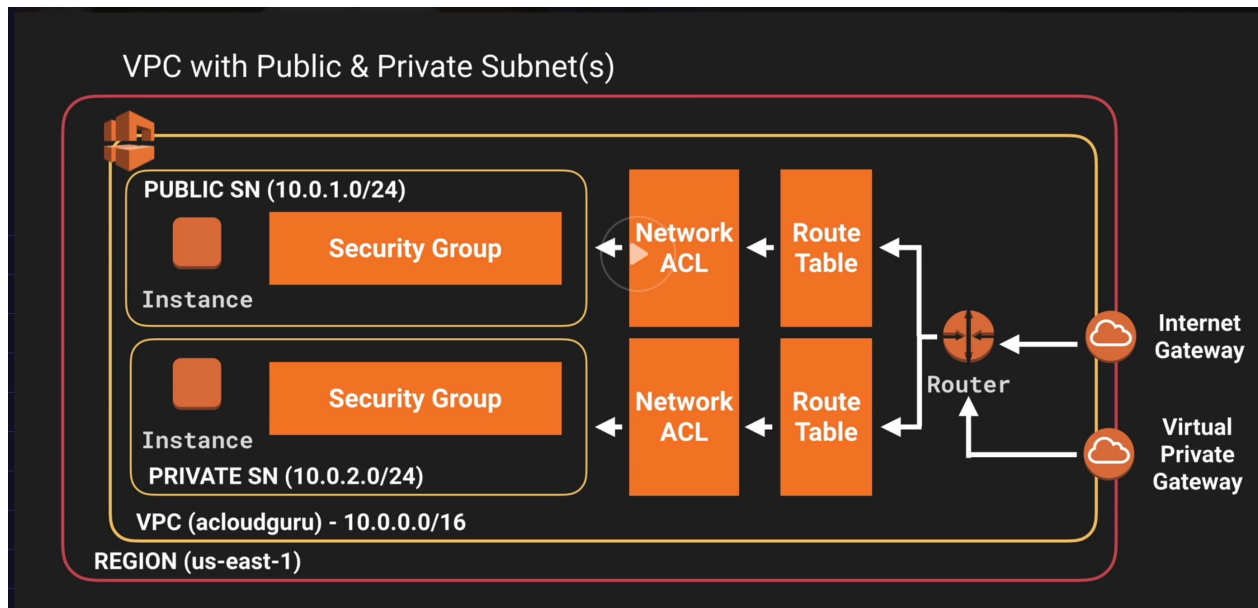


Figure 1: VPC Diagram

1 What is VPC?

Think of VPC as a virtual data center in the cloud. Amazon Virtual Private Cloud (Amazon VPC) lets you provision a logically isolated section of the Amazon Web Service (AWS) cloud where you can launch AWS resources in a virtual network that you define. You have complete control over your virtual networking environment, including selection of your own IP address range, creation of subnets, and configuration of route tables and network gateways. Additionally, you can create a hardware Virtual Private Network (VPN) connection between your corporate datacenter and your VPC and leverage the AWS cloud as an extension of your corporate datacenter.

1.1 What can you do with a VPC?

- Launch instances into a subnet of your choosing
- Assign custom IP address ranges in each subnet
- Configure route tables between subnets
- Create internet gateway and attach it to our VPC
- Much better security control over your AWS resources
- Instance security groups
- Subnet network access control lists (ACLs)

1.2 Default VPC

- Default VPC is user friendly, allowing you to immediately deploy instances
- All subnets in default VPC have a route out to the internet
- Each EC2 instance has both a public and private IP address

1.3 VPC Peering

- Allows you to connect one VPC with another via a direct network route using private IP addresses
- Instances behave as if they were on the same private network
- You can peer VPCs with other AWS accounts as well as with other VPCs in the same account
- Peering is in a star configuration. i.e. 1 central VPC peers with 4 others. No transitive peering

1.4 Exam Tips

- Think of a VPC as a logical datacenter in AWS
- Consists of IGWs (or Virtual Private Gateways), Route Tables , Network Access Control Lists, Subnets, and Security Groups
- 1 subnet = 1 availability zone
- Security groups are stateful, network access control lists are stateless
- No transitive peering