



Amazon VPC-1



Table of Contents

- ▶ Introduction to VPC
- ▶ VPC Basic Components



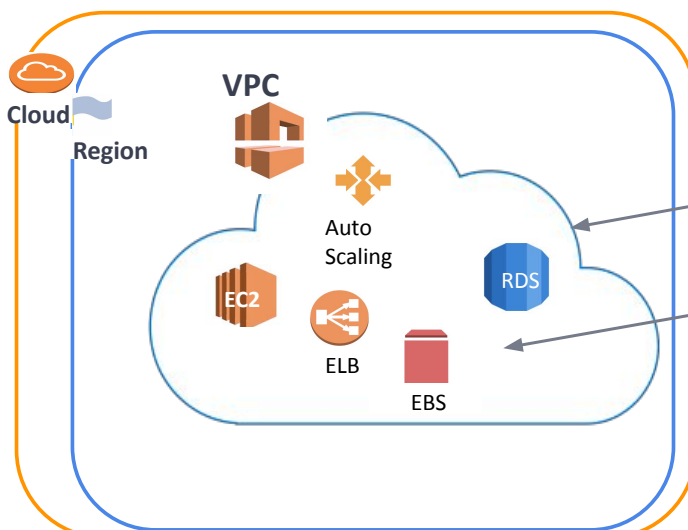
1

Introduction to VPC



Introduction to VPC

What is VPC?



Amazon Virtual Private Cloud (Amazon VPC) is a **logically isolated area** of the AWS cloud where you can **launch AWS resources in a virtual network** that you define.

2

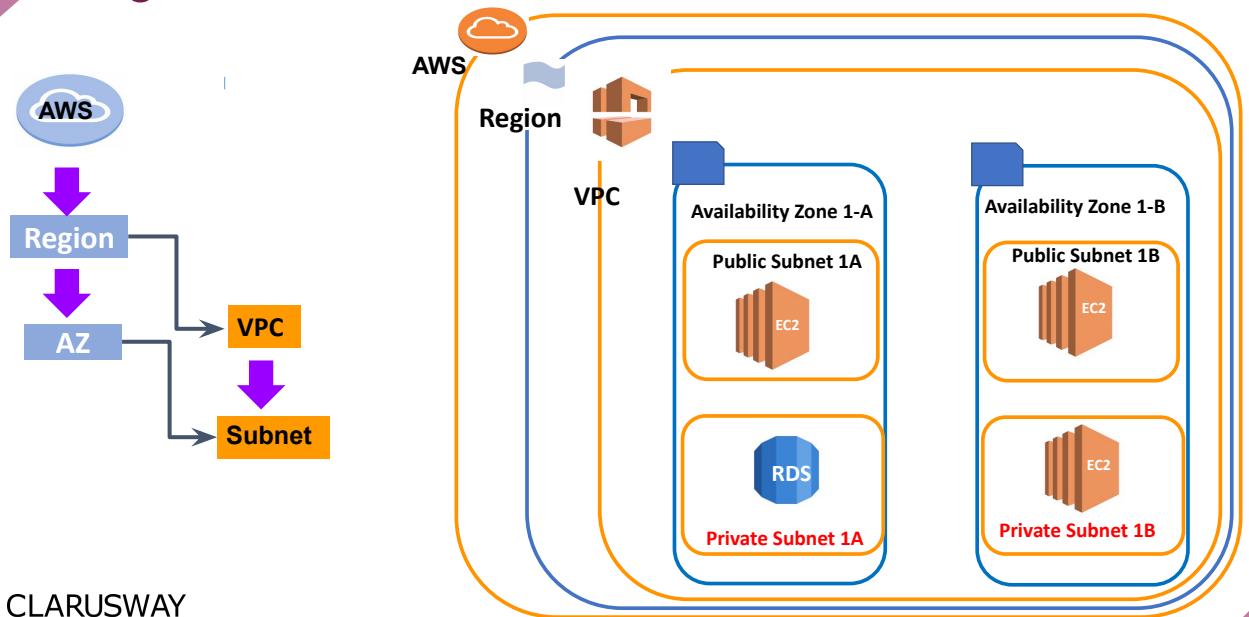
VPC Basic Components

VPC Basic Components

- VPC Region (AZ)
- VPC Subnets
- VPC CIDR
- Internet Gateway
- Route Table
- Security Group and Network ACL



Region, VPC, AZ and Subnets



VPC CIDR

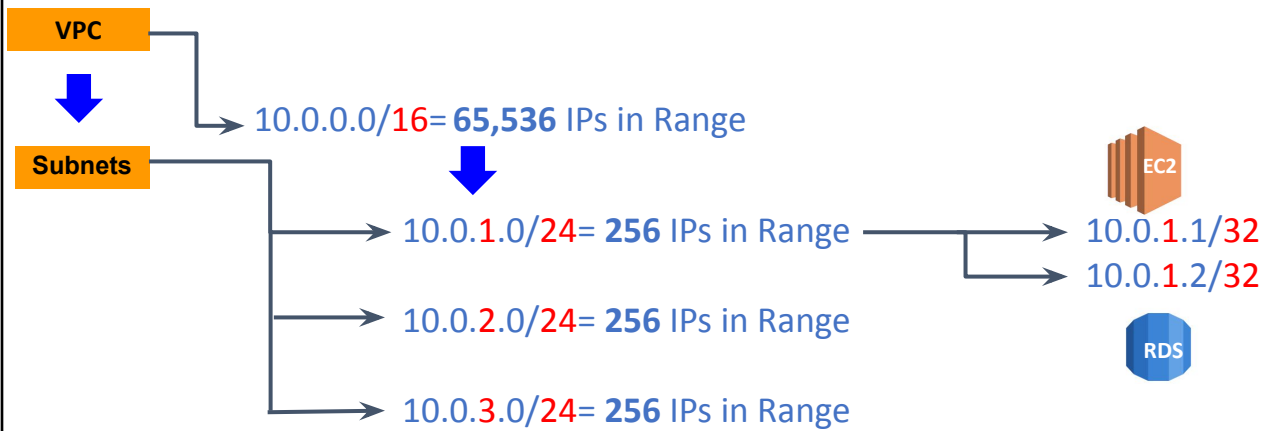


10.0.0.0/16 Block Size

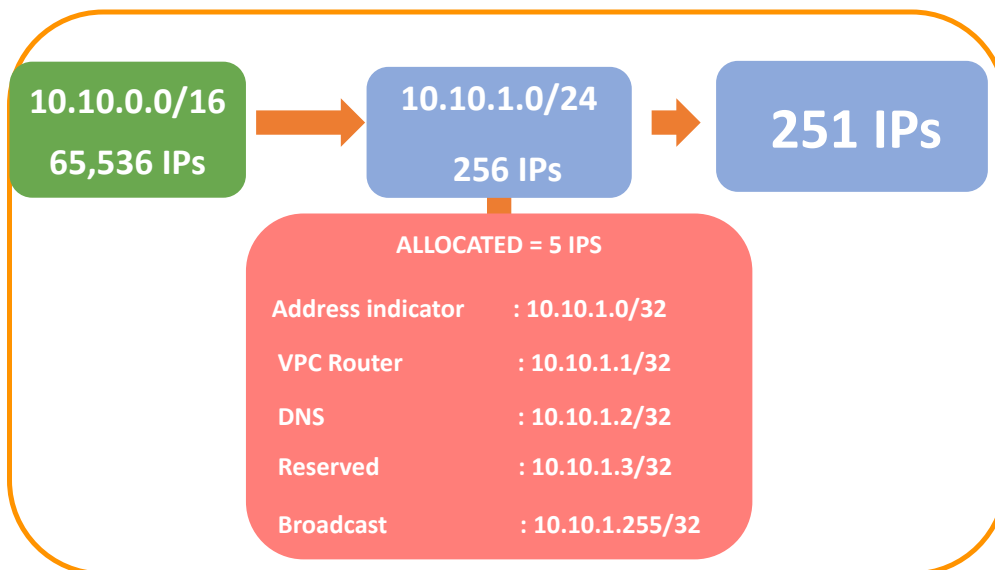
10.0.0.0/16 = 65,536 IPs in Range
10.0.1.0/24 = 256 IPs in Range
10.0.1.0/32 = 1 IP in Range

- CIDR refers to Classless Inter-Domain Routing.
- It is a set of Internet protocol (IP) standards that is used to create unique identifiers for networks.
- As the Size Block/Netmask (/16,24,32) increases, the number of IP located in CIDR Block decreases.

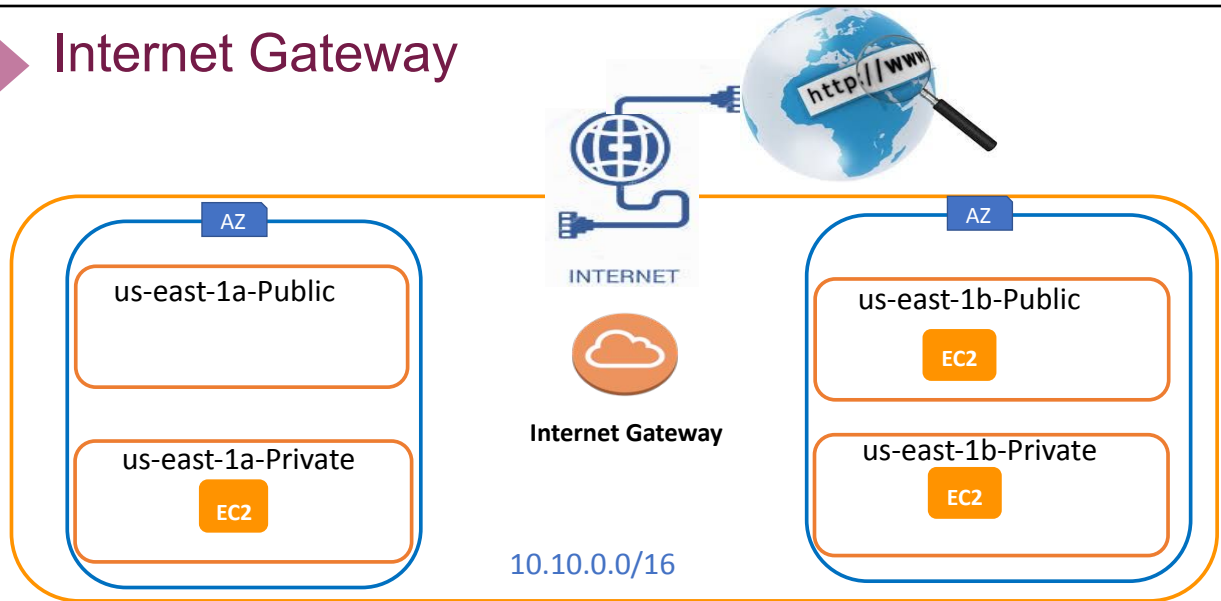
VPC CIDR



VPC CIDR



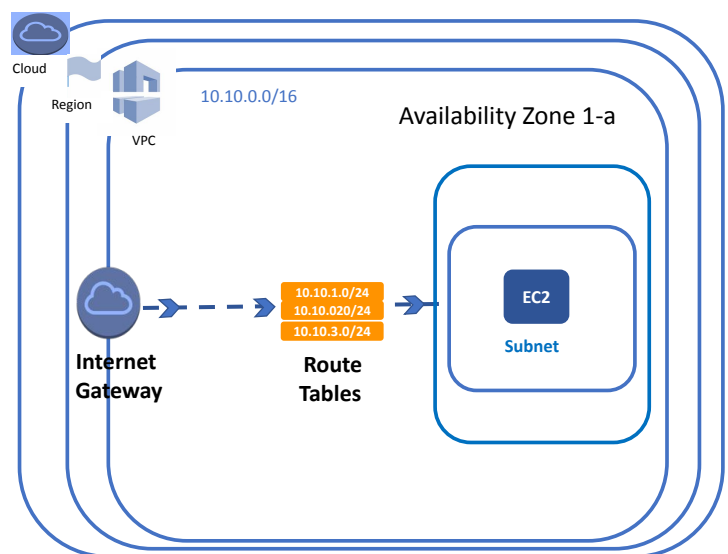
Internet Gateway



- **Internet Gateway** is a VPC component that provides communication between resources in your VPC and the internet.

Route Table

- **Route Table** is a set of rules, that is used to determine where VPC traffic is directed.



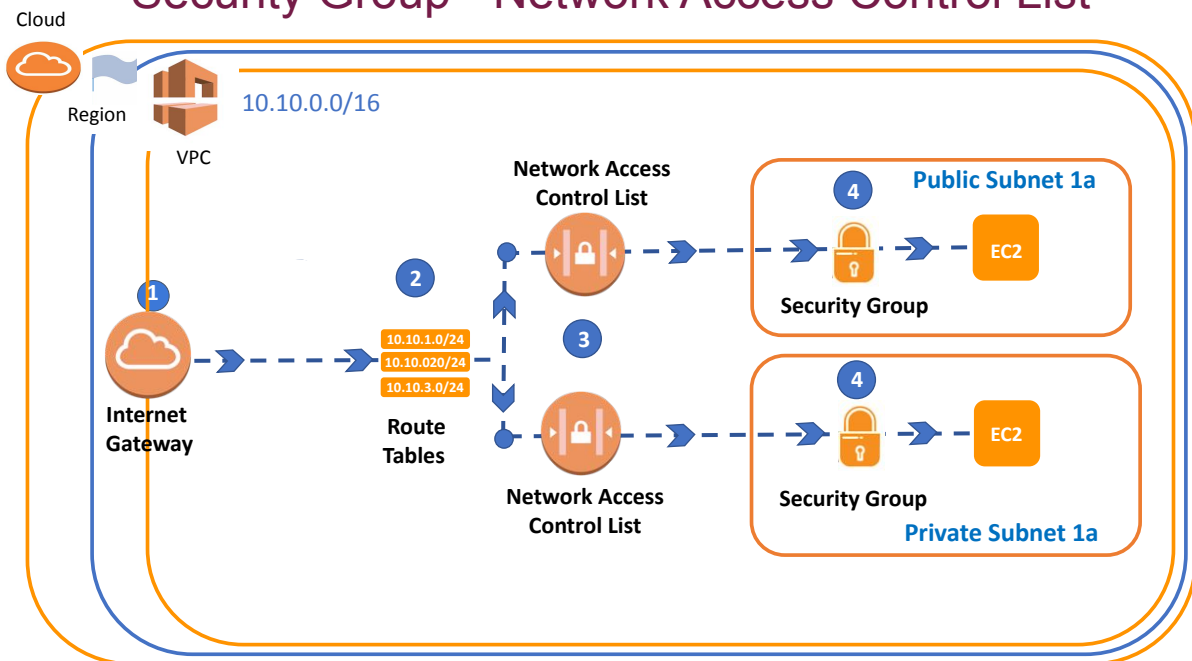
Network ACLs & Security Groups





- Network ACLs are **subnet-based security components**.
- It controls the traffic in and out of subnets.
- Security Groups are instance-based **security** components,
- They are used for determining which traffic will access the instance.
- Instance in subnet is affected by rules of both Security Groups and Network ACLs

CLARUSWAY
WAY TO REINVENT YOURSELF

Security Group - Network Access Control List

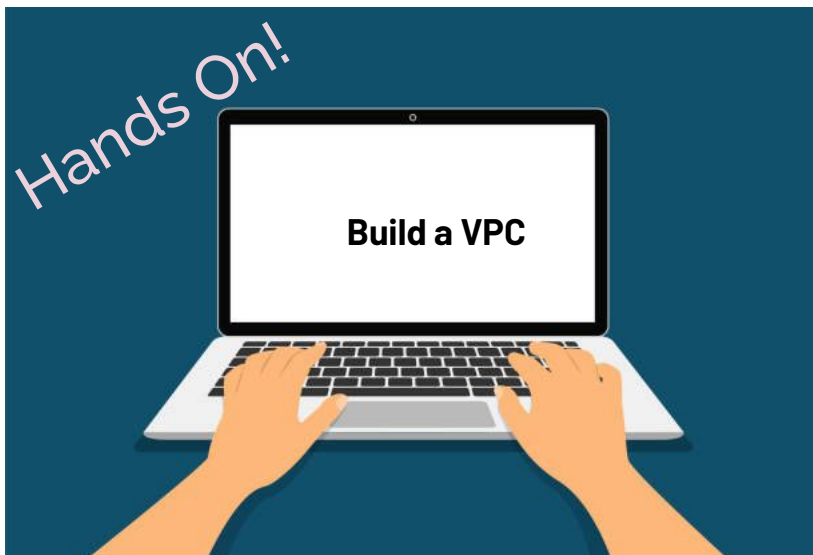


Security Group 		Network Access Control List 
Rules	It supports only Allow Rules	It supports both Allow and Deny rules
Default by AWS	By default, inbound rules are Denied , outbound rules are Allow	By default, all the rules are Allowed
* Newly Created by User	By default, inbound rules are Denied , outbound rules are Allow	By default, all the rules are Denied* until you add rules.
Add Rule	You need to add the rule which you'll Allow	You need to add the rule which you can either Allow or Deny it.
Stateful/Stateless	It is a Stateful means that any changes made in the inbound rule will be automatically reflected in the outbound rule	It is a Stateless means that any changes made in the inbound rule will not reflect the outbound rule
Association	<ol style="list-style-type: none"> 1. It is instance-based 2. Instances can associate with more than one Security Groups 	<ol style="list-style-type: none"> 1. It is subnet-based 2. Subnets can associate with only one Network ACL



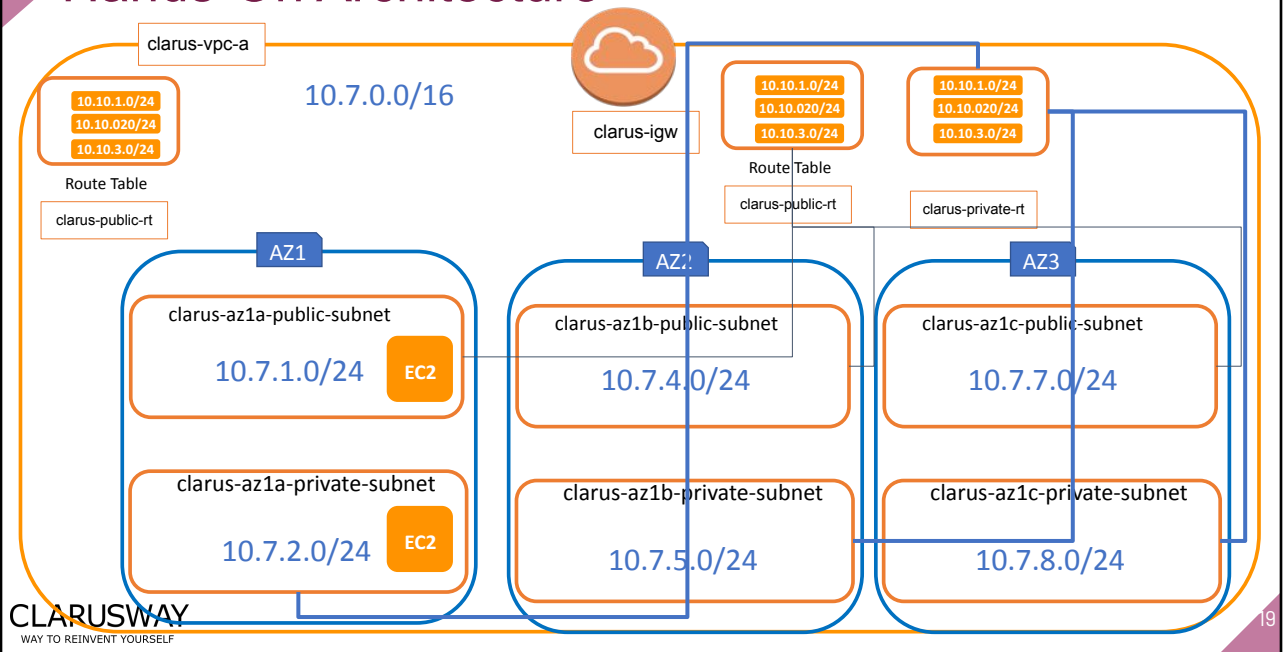
Kahoot!

CLARUSWAY
WAY TO REINVENT YOURSELF



CLARUSWAY
WAY TO REINVENT YOURSELF

Hands-On Architecture



Break
return @ 12pm



THANKS!

Any questions?

