

Connectivity



Virtual Private Cloud (VPC) [Info](#)

VPC that defines the virtual networking environment for this DB instance.

Default VPC (vpc-d8715da2) ▼

Only VPCs with a corresponding DB subnet group are listed.

i After a database is created, you can't change the VPC selection.

▼ Additional connectivity configuration

Subnet group [Info](#)

DB subnet group that defines which subnets and IP ranges the DB instance can use in the VPC you selected.

default ▼

Publicly accessible [Info](#)

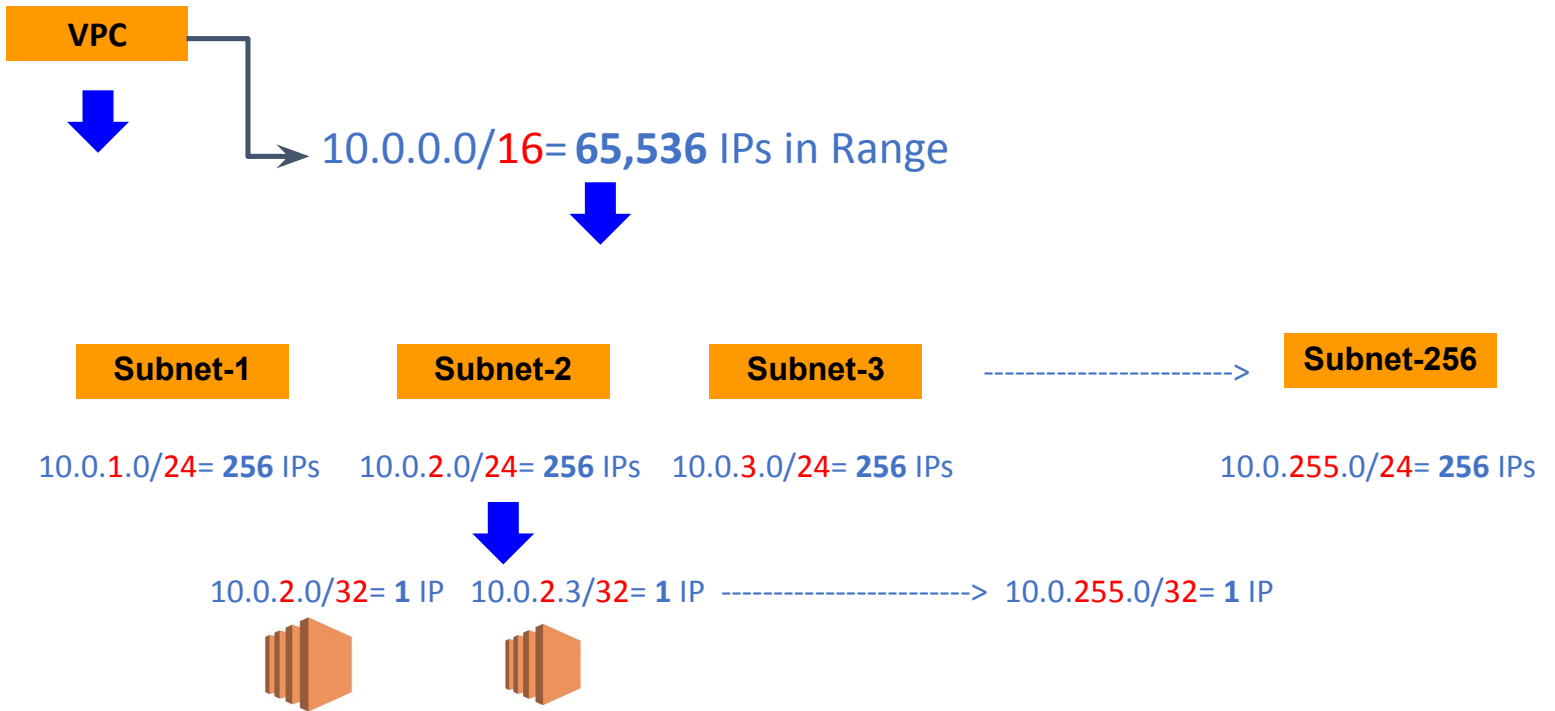
☒ Yes

Amazon EC2 instances and devices outside the VPC can connect to your database. Choose one or more VPC security groups that specify which EC2 instances and devices inside the VPC can connect to the database.

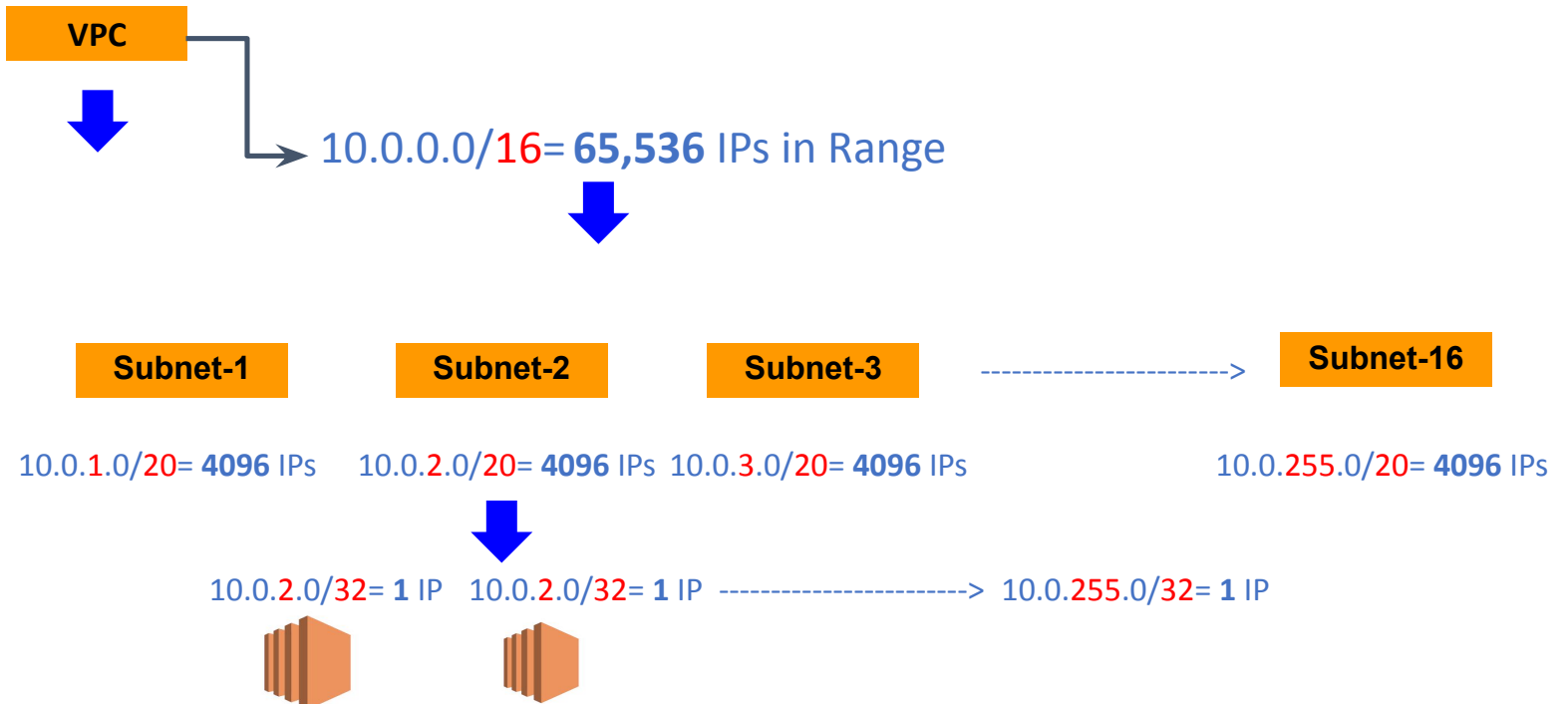
☐ No

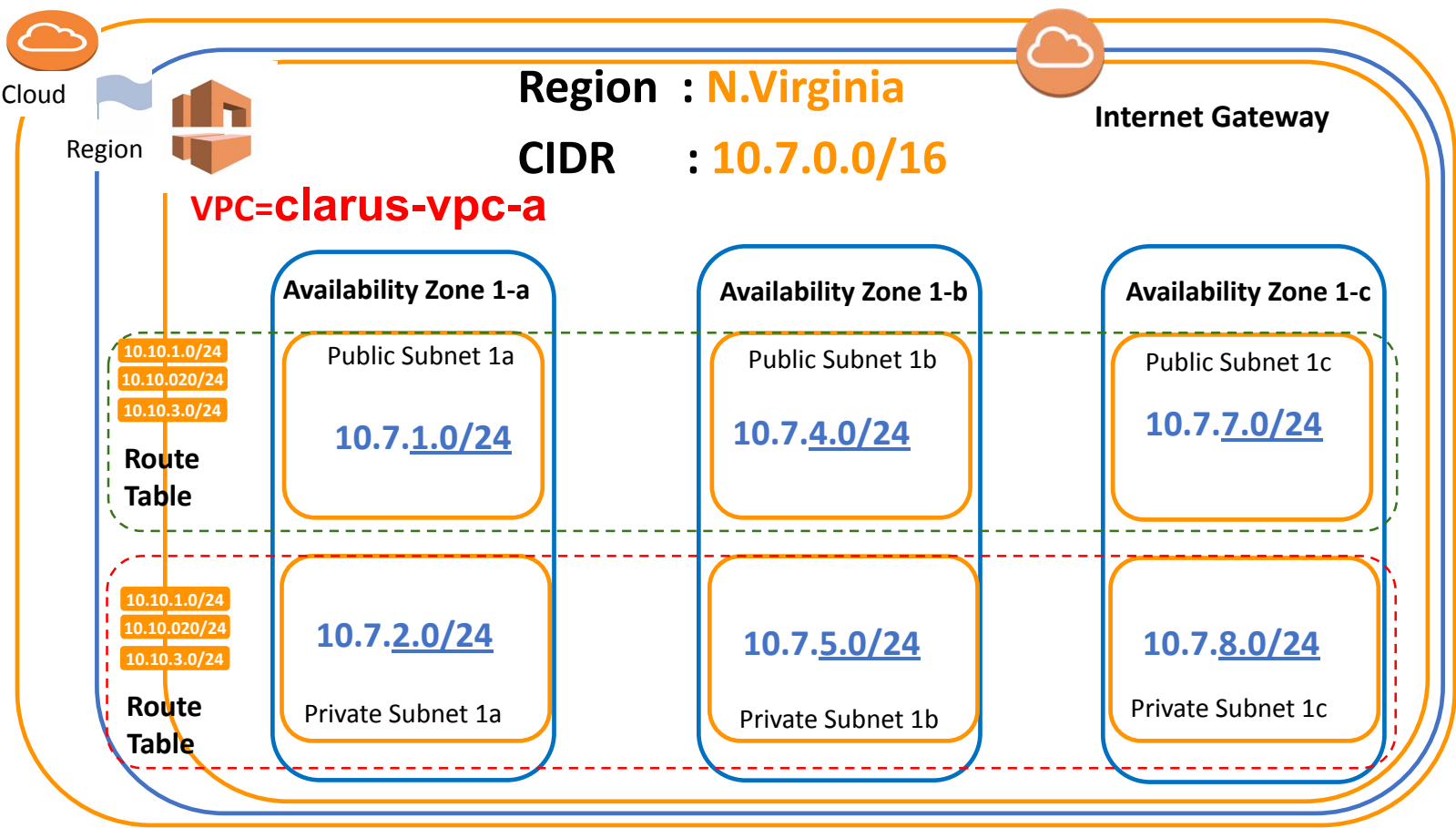
RDS will not assign a public IP address to the database. Only Amazon EC2 instances and devices inside the VPC can connect to your database.

$65,536/256 = 256$ SUBNETS

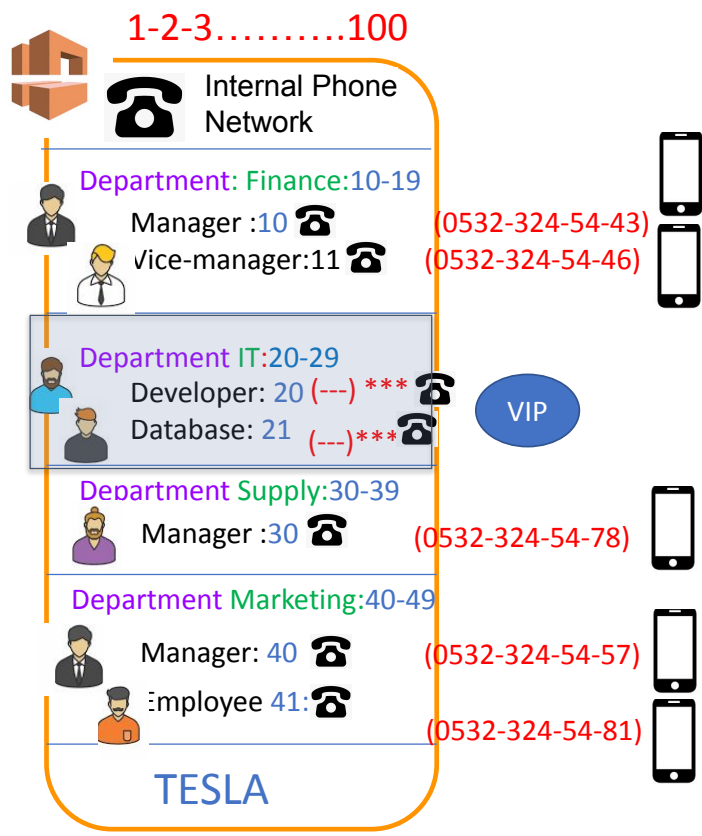


$65,536/4096 = 16$ SUBNETS

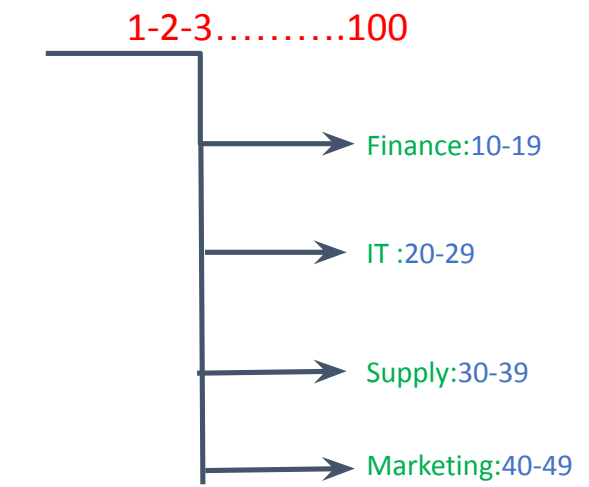


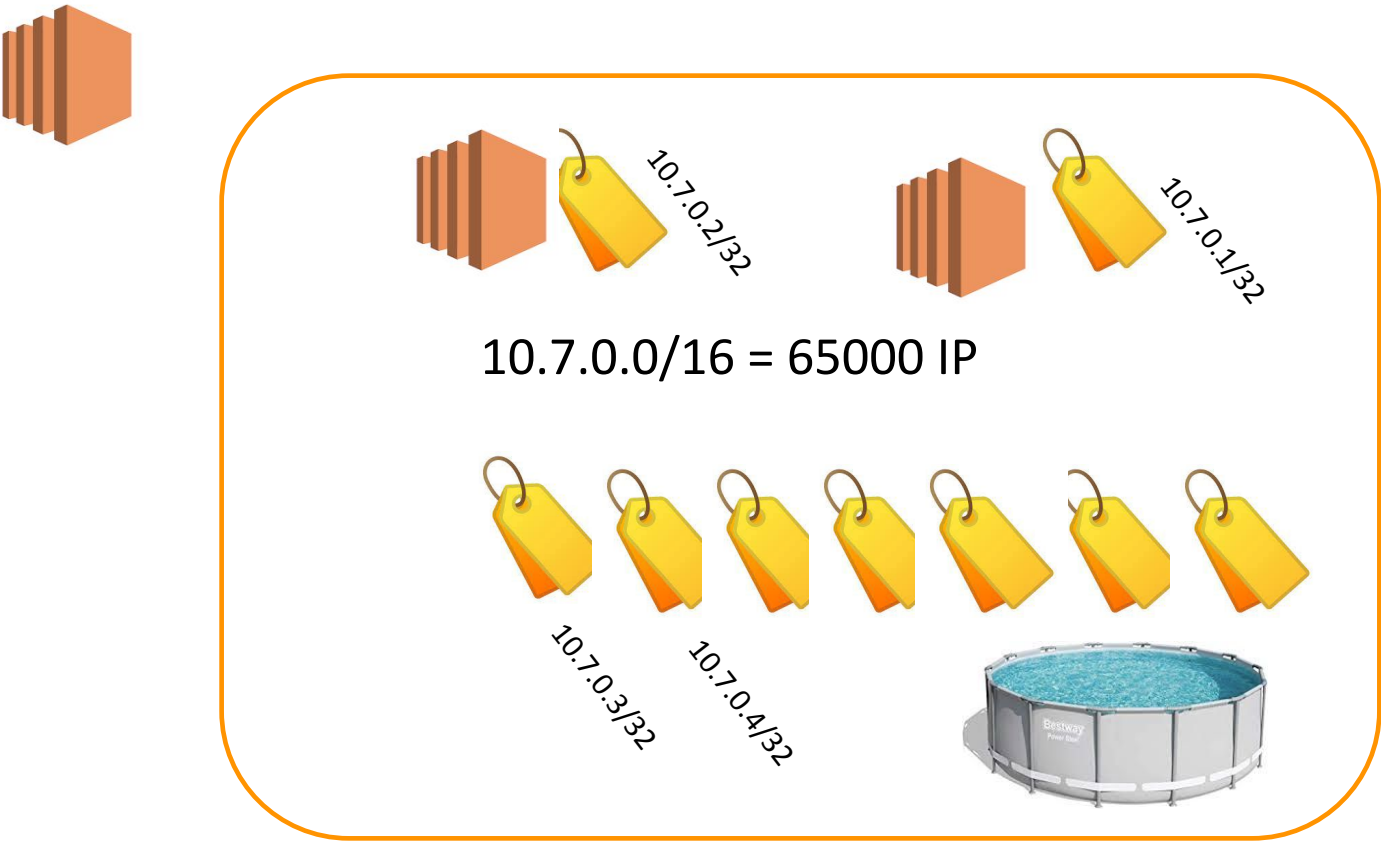
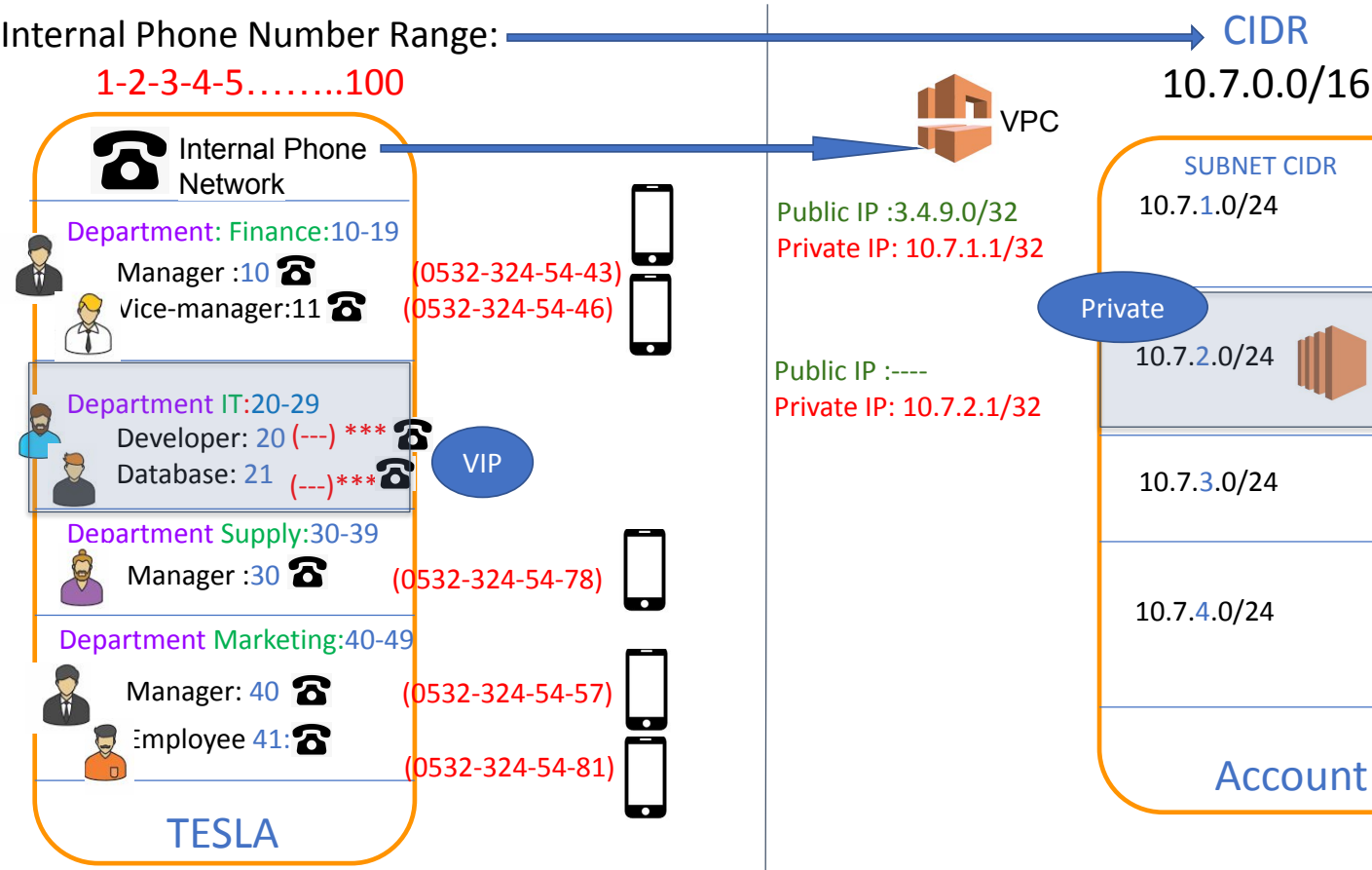


Internal Phone Number Range:



Internal Phone Number Range:





How is it possible to use the same CIDR block for all of us?

SSN:01-A-2345-4563



SSN:02-C-98756H64

VPC 1=House 1



VPC 2=House 2



VPC CIDR IP POOL

10.7.0.0/16 = 65000 IP



AWS PUBLIC IP POOL



VPC



10.7.1.0/32

10.7.2.0/32

175.0.0.1/32



Private Subnet



Public Subnet

Create **VPC**

· Name tag: **clarus-vpc-a**

Create **IGW**

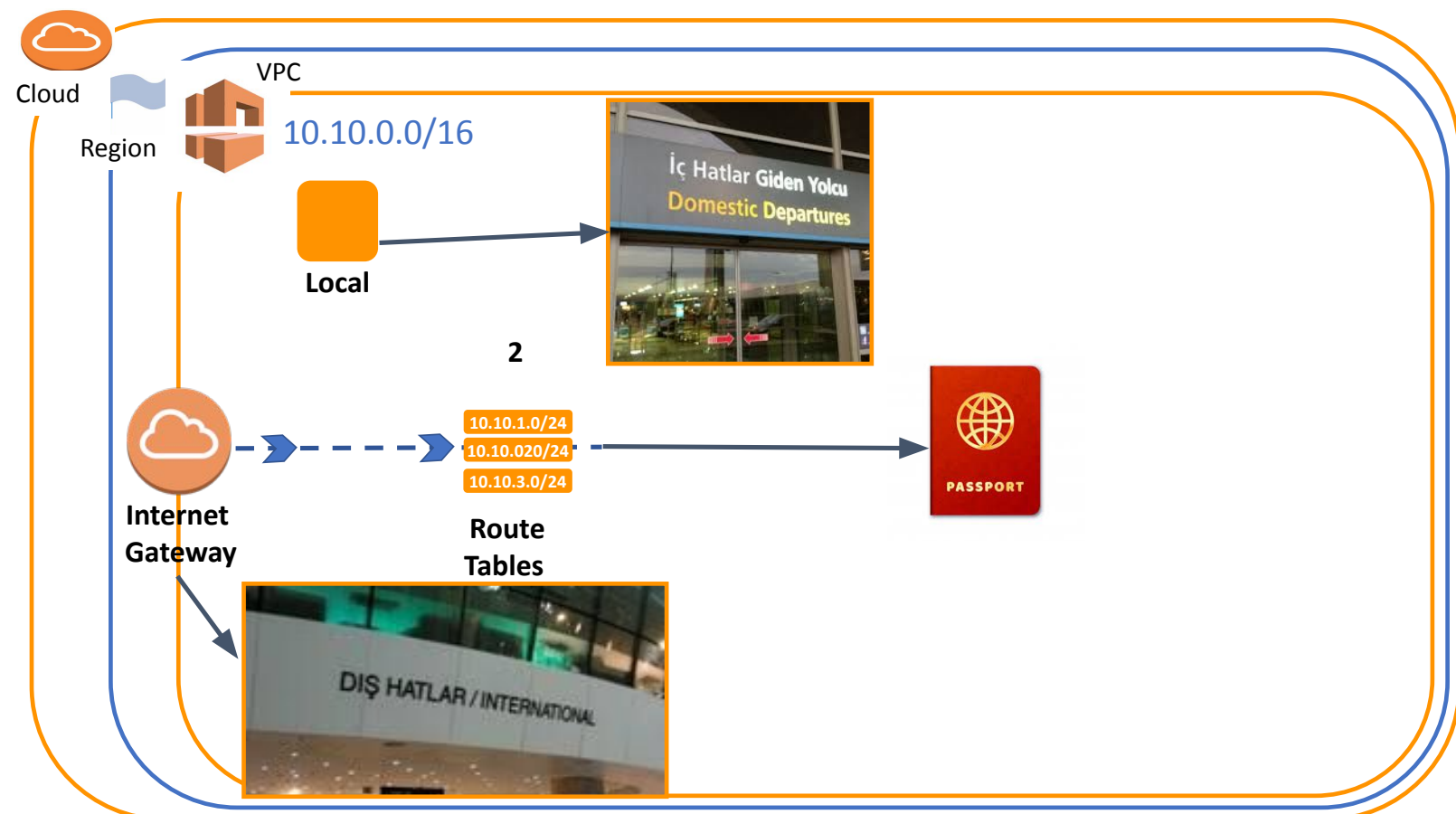
· IPv4 CIDR block: **10.7.0.0/16**

IGW Action Menu:
Attach IGW to VPC

Set the VPC Route Table:
00000:/0 > IGW

VPC Action Menu:
Edit DNS Hostname

Name Default Route Table: **default-labvpc**



- Name tag: **clarus-vpc-a**
- IPv4 CIDR block: **10.7.0.0/16**

us-east-1a

- **public**
- clarus-az1a-public-subnet
- us-east-1a

10.7.1.36

10.7.1.0/24

- **private**
- clarus-az1a-private-subnet
- us-east-1a

10.7.2.76

10.7.2.0/24

Spare...

us-east-1a
10.7.3.0/24

us-east-1b

- **public**
- clarus-az1b-public-subnet
- us-east-1b

10.7.4.0

- **private**
- clarus-az1b-private-subnet
- us-east-1b

10.7.5.0/24

Spare...

us-east-1b
10.7.6.0/24

us-east-1c

- **public**
- clarus-az1c-public-subnet
- us-east-1c

10.7.7.0/24

- **private**
- clarus-az1c-private-subnet
- us-east-1c

10.7.8.0/24

Spare...

us-east-1c
10.7.9.0/24

1- All Subnets are associated with Default Route Table Implicitly

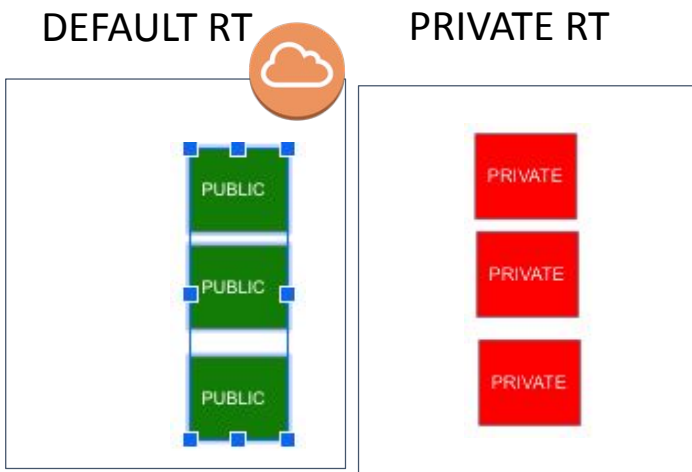
2- By default all subnets are PUBLIC !!!!!

Conclusion

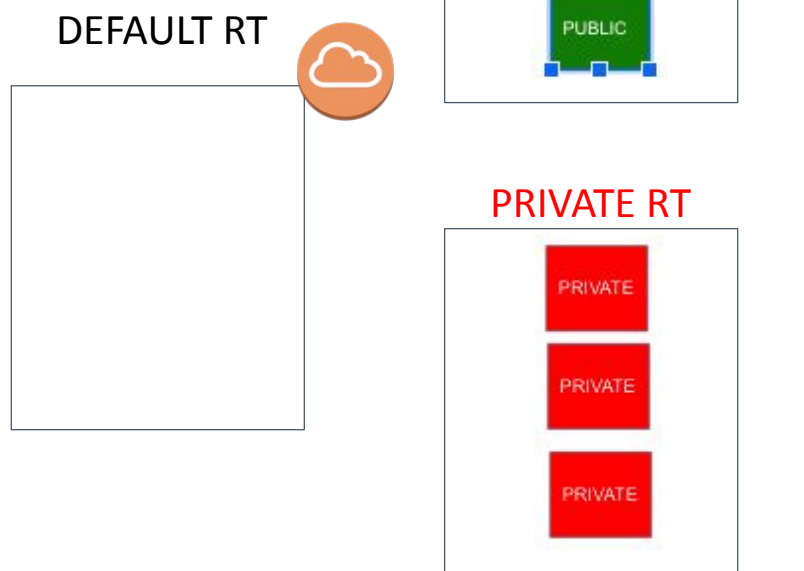
**a.Local
b.0000/0 >>>>IGW**

Current= 6 Public
Desired= 3 Public 3 Private

Option-1



Option-2



Create 3 Public and 3 Private Subnets

Public Route Table Steps

Create a new Route Table for Public Subnets

Associate 3 Public Subnets with Public Route Table

Set Routes: a.Local
b.0.0.0/0 >>>>IGW

Modify Auto-Assign IP Settings-Subnet Action
Menu-Edit subnet settings

Default Route Table of VPC
3 Public Subnets
Internet Connectivity



Private Route Table Steps

Create a new Route Table for Private Subnets

Associate 3 Private Subnets with Private Route Table

Route Table of Private
3 Private Subnets
Internet Connectivity

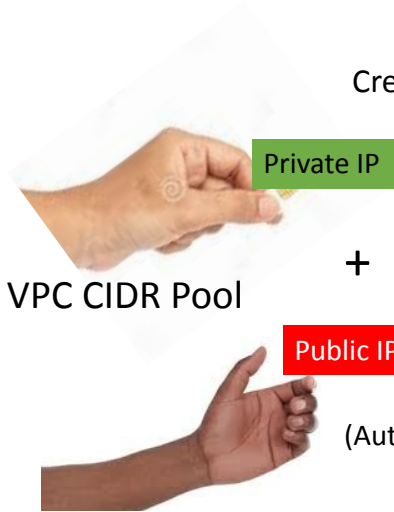


Launching an Instance



Create in Public Subnet

Create in Private Subnet



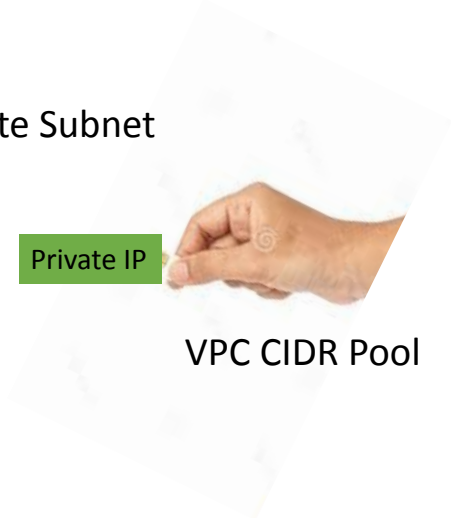
VPC CIDR Pool

+

Public IP

(Auto Assign IP)

AWS IP POOL



Private IP

VPC CIDR Pool



Route Tables



Private Subnets
Internet Connectivity

Public Subnets
Internet Connectivity

