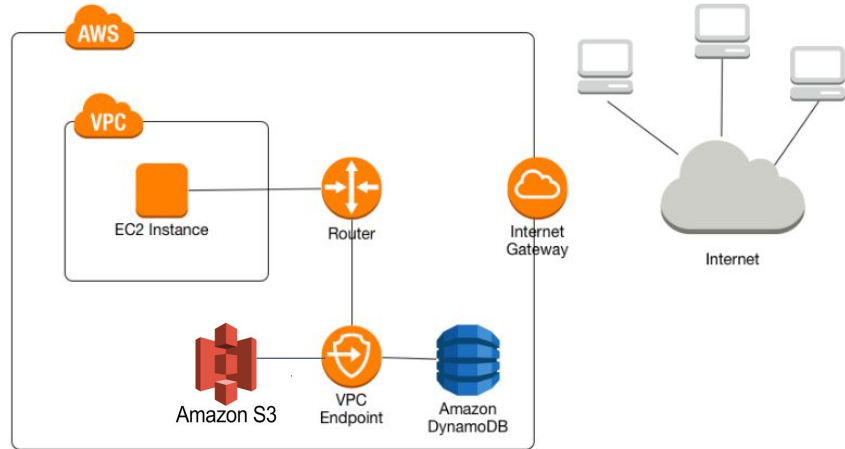**services using HTTP protocol**

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.

ⓘ 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.
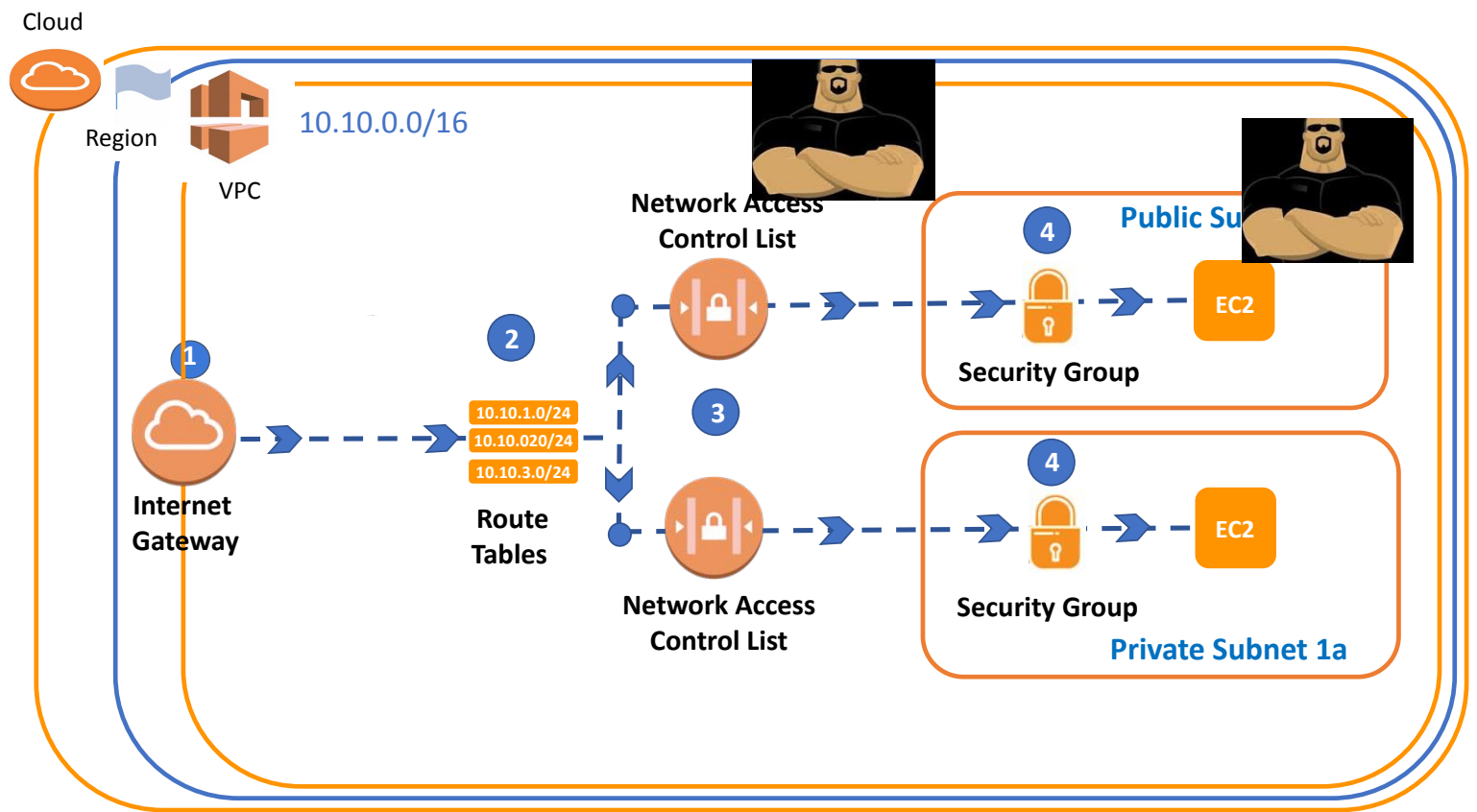
default ▼

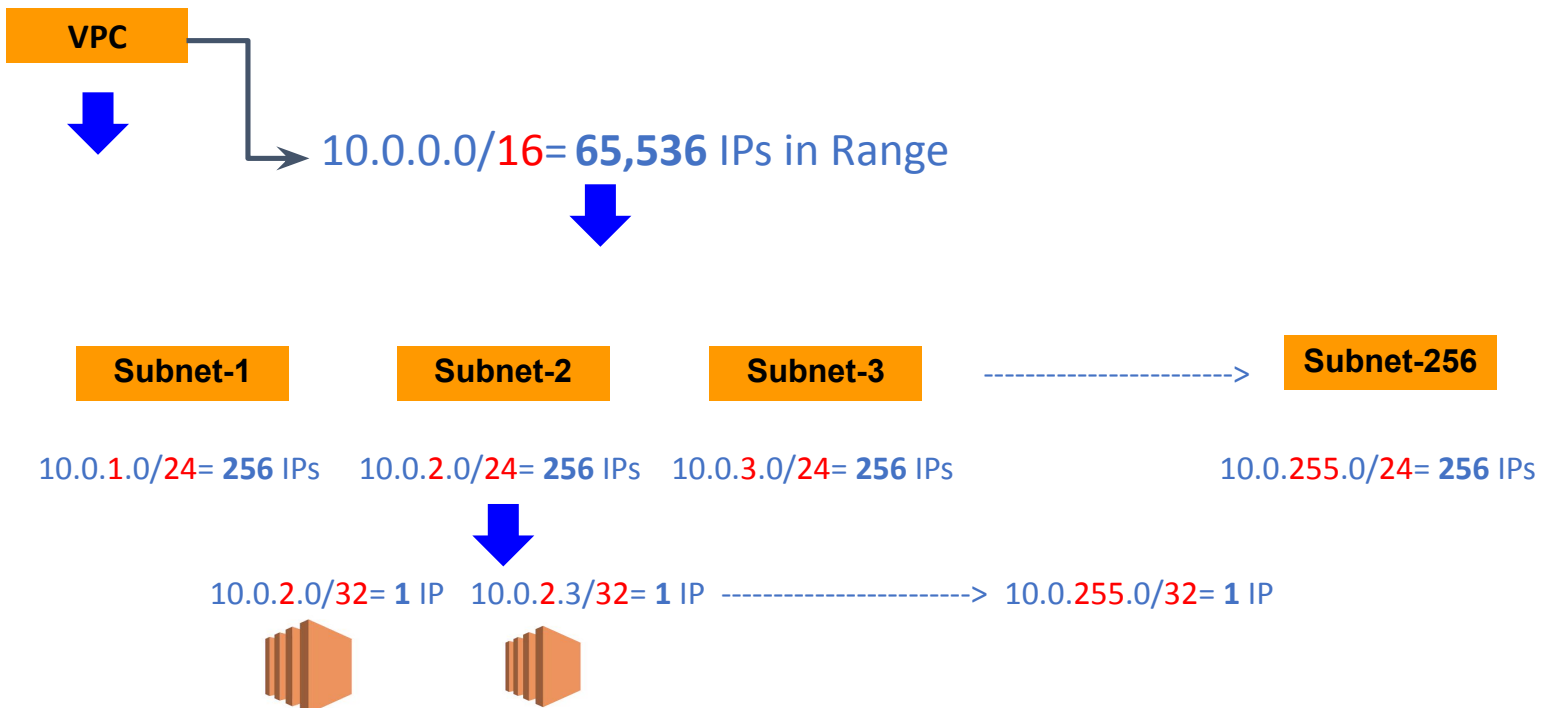### Publicly accessible Info

● **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.

Cloud

Region

VPC

10.10.0.0/16

**Network Access
Control List**

Public Su

4

Security Group

EC2

1

2

10.10.1.0/24
10.10.020/24
10.10.3.0/24

3

**Internet
Gateway**

**Route
Tables**

**Network Access
Control List**

4

Security Group

EC2

Private Subnet 1a

65,536/256= 256 SUBNETS

VPC

10.0.0.0/16= **65,536** IPs in Range

Subnet-1	Subnet-2	Subnet-3	---------------------->	Subnet-256

10.0.1.0/24= **256** IPs   10.0.2.0/24= **256** IPs   10.0.3.0/24= **256** IPs   10.0.255.0/24= **256** IPs

10.0.2.0/32= **1** IP   10.0.2.3/32= **1** IP   ----------------------> 10.0.255.0/32= **1** IP

65,536/4096= 16 SUBNETS

VPC

10.0.0.0/16= **65,536** IPs in Range

| Subnet-1 | Subnet-2 | Subnet-3 | --------------------------> | Subnet-16 |

10.0.1.0/20= **4096** IPs 10.0.2.0/20= **4096** IPs 10.0.3.0/20= **4096** IPs 10.0.255.0/20= **4096** IPs

10.0.2.0/32= **1** IP 10.0.2.0/32= **1** IP ------------------------> 10.0.255.0/32= **1** IP

Cloud

Region

Region : N.Virginia

CIDR   : 10.7.0.0/16

Internet Gateway

VPC=clarus-vpc

Availability Zone 1-a

Availability Zone 1-b

Availability Zone 1-c

10.10.1.0/24
10.10.020/24
10.10.3.0/24

Route Table

Public Subnet 1a

10.7.1.0/24

Public Subnet 1b

10.7.4.0/24

Public Subnet 1c

10.7.7.0/24

10.10.1.0/24
10.10.020/24
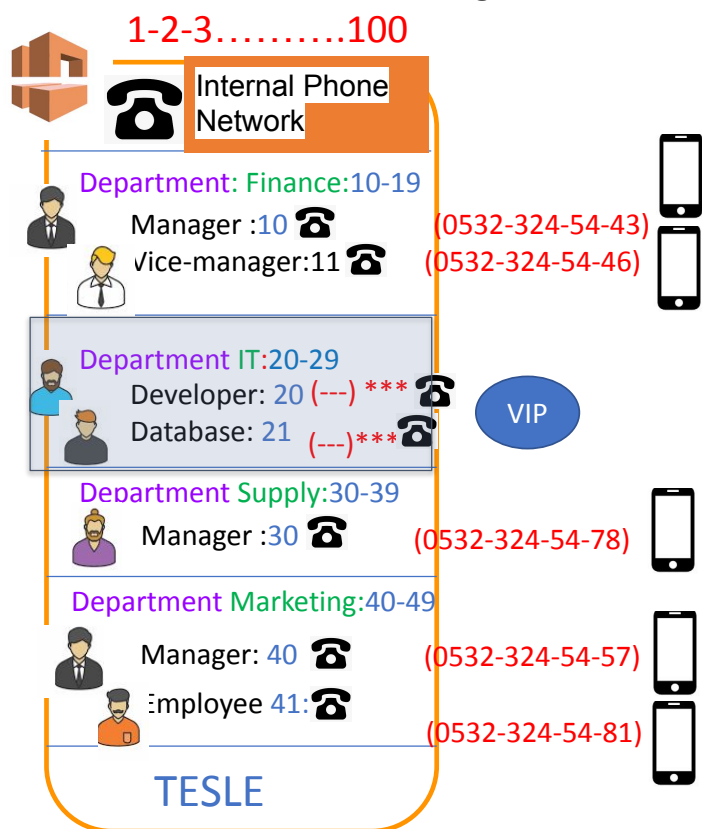10.10.3.0/24

Route Table

10.7.2.0/24

Private Subnet 1a
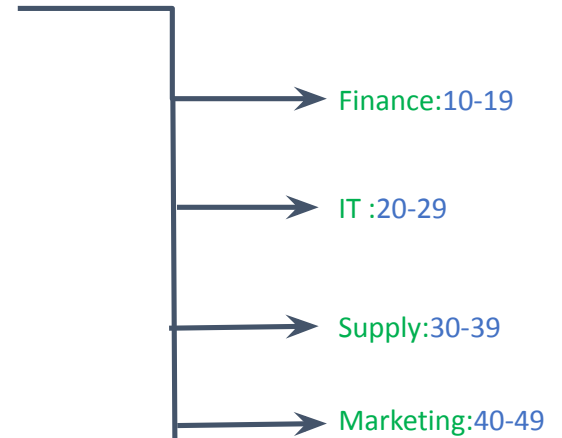
10.7.5.0/24

Private Subnet 1b
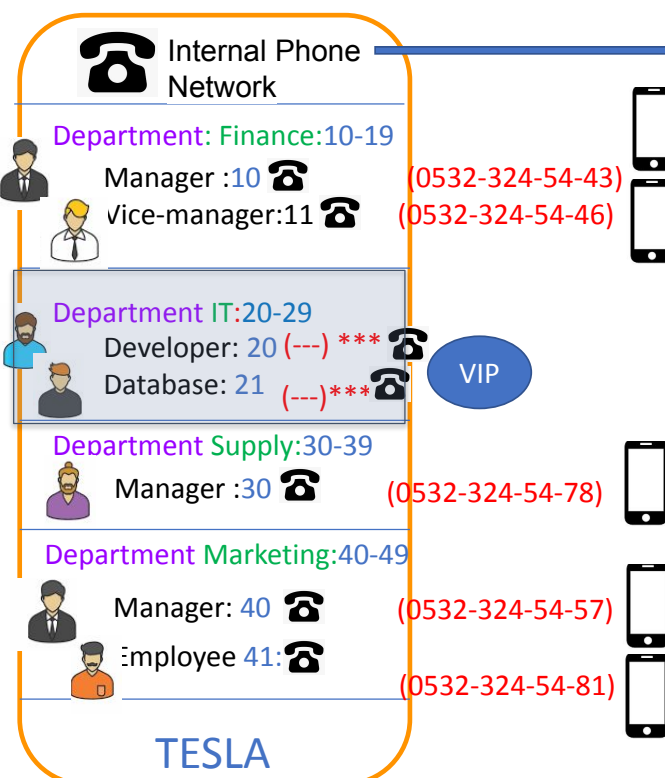
10.7.8.0/24

Private Subnet 1c

Internal Phone Number Range:

1-2-3..........100

Internal Phone Network

Department: Finance:10-19
Manager :10 ☎
Vice-manager:11 ☎
(0532-324-54-43)
(0532-324-54-46)

Department IT:20-29
Developer: 20 (---) ***☎
Database: 21 (---)***☎
VIP

Department Supply:30-39
Manager :30 ☎
(0532-324-54-78)

Department Marketing:40-49
Manager: 40 ☎
(0532-324-54-57)
Employee 41:☎
(0532-324-54-81)

TESLE

Internal Phone Number Range:

1-2-3..........100

Finance:10-19

IT :20-29

Supply:30-39

Marketing:40-49

Internal Phone Number Range:

1-2-3-4-5........100

CIDR

10.7.0.0/16

Internal Phone Network

Department: Finance:10-19
Manager :10 ☎
Vice-manager:11 ☎
(0532-324-54-43)
(0532-324-54-46)

Department IT:20-29
Developer: 20 (---) ***☎
Database: 21 (---)***☎
VIP

Department Supply:30-39
Manager :30 ☎
(0532-324-54-78)

Department Marketing:40-49
Manager: 40 ☎
(0532-324-54-57)
Employee 41:☎
(0532-324-54-81)

TESLA

VPC

Public IP :3.4.9.0/32
Private IP: 10.7.1.1/32

Public IP :----
Private IP: 10.7.2.1/32

SUBNET CIDR
10.7.1.0/24

Private
10.7.2.0/24

10.7.3.0/24

10.7.4.0/24

Account
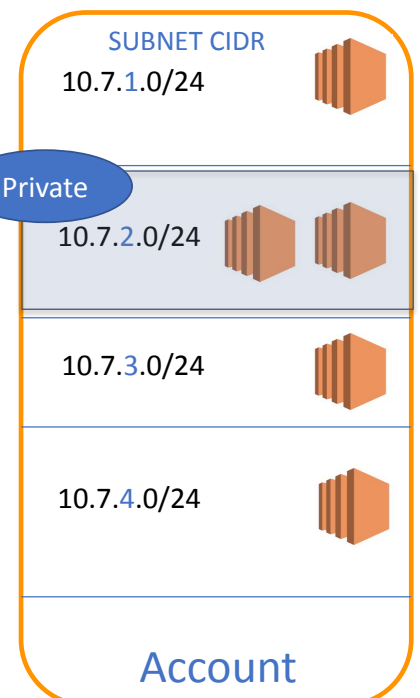
VPC CIDR Bock

Labeling

Internal Communication

10.7.0.0/16 = 65000 IP = 65000

10.7.0.3/32

10.7.0.4/32
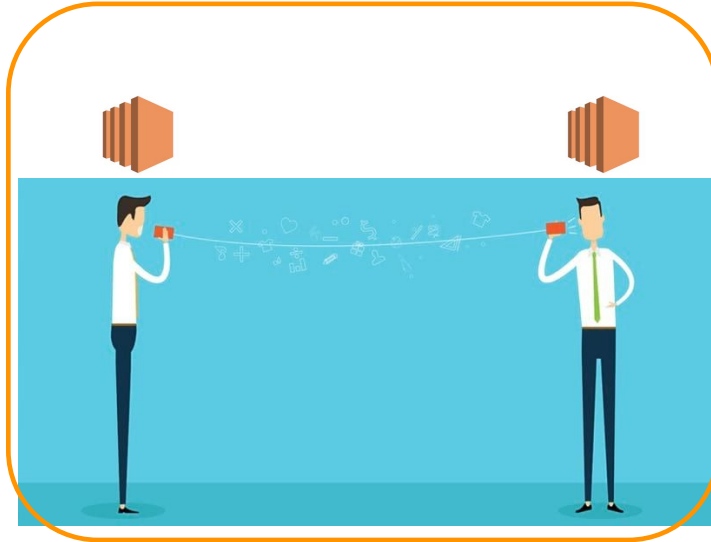
How is it possible to use the same CIDR block for all of us?

SSN:01-A-2345-4563

HOSPITAL

SSN:02-C-98756H64

VPC 1=House 1

DAD

VPC 2=House 2

DAD

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**
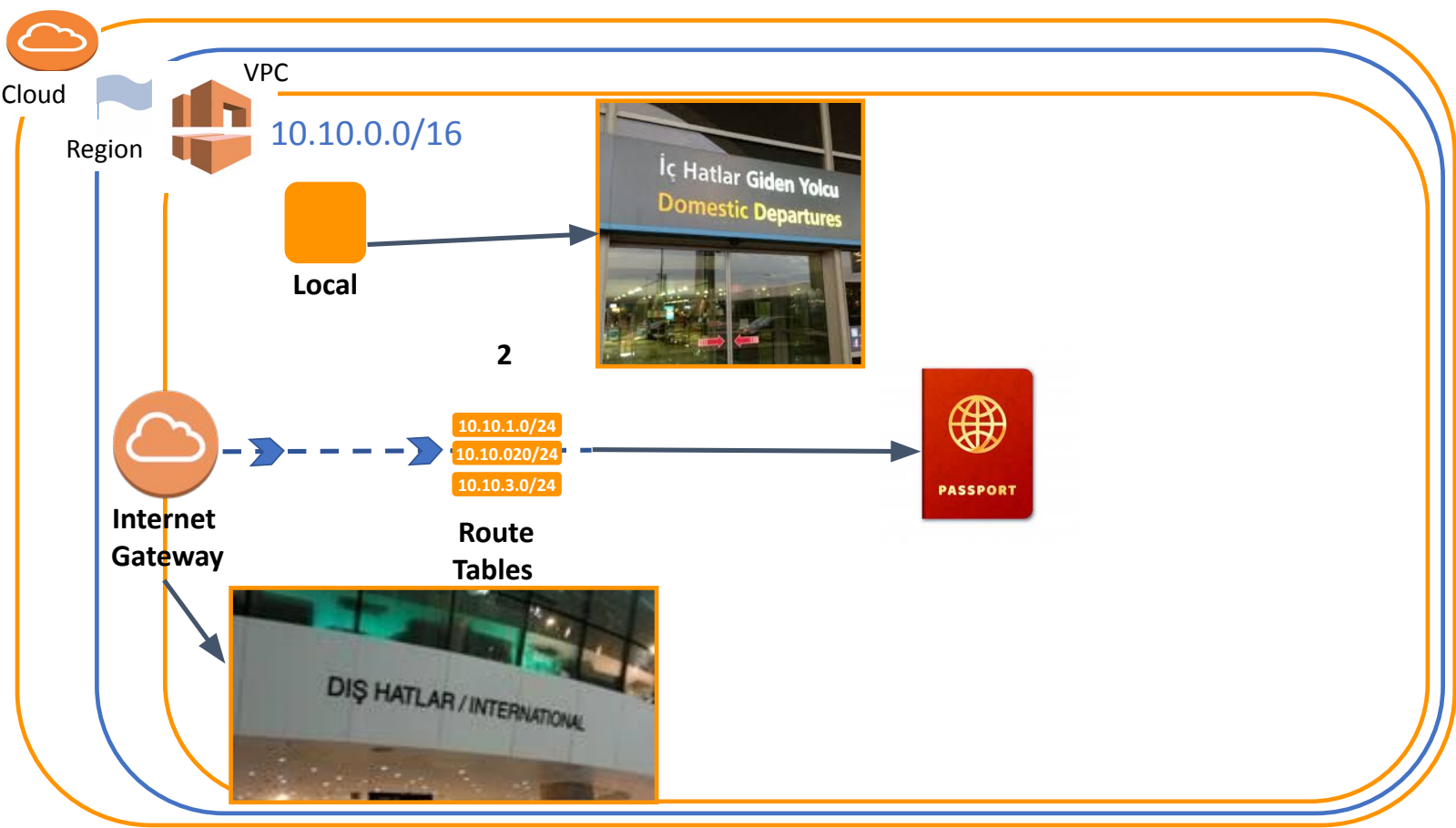

Create VPC

- *Name tag*: **clarus-vpc**

- *IPv4 CIDR block*: **10.7.0.0/16**

Create IGW

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

Cloud

VPC

Region

10.10.0.0/16

Local

İç Hatlar Giden Yolcu
Domestic Departures

2

**Internet
Gateway**

10.10.1.0/24
10.10.020/24
10.10.3.0/24

**Route
Tables**

PASSPORT

DIŞ HATLAR / INTERNATIONAL

· *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   10.7.1.85

- **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**

    10.7.4.0/24

- **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**

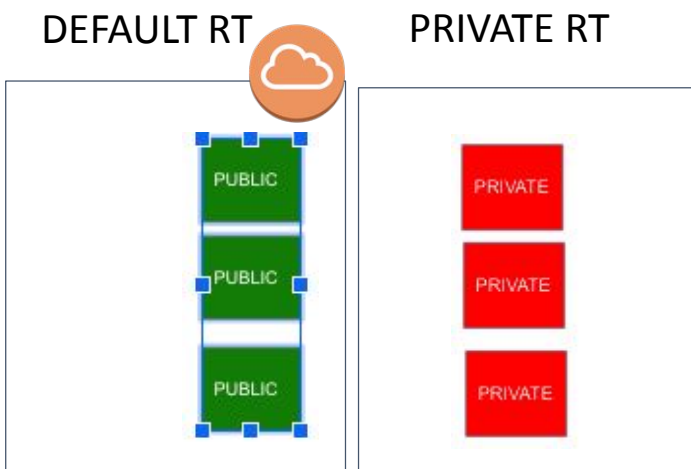   **10.7.8.0/24**

Spare…

us-east-1c
10.7.9.0/24

1- All Subnets are associated with Default Route Table Implicitly

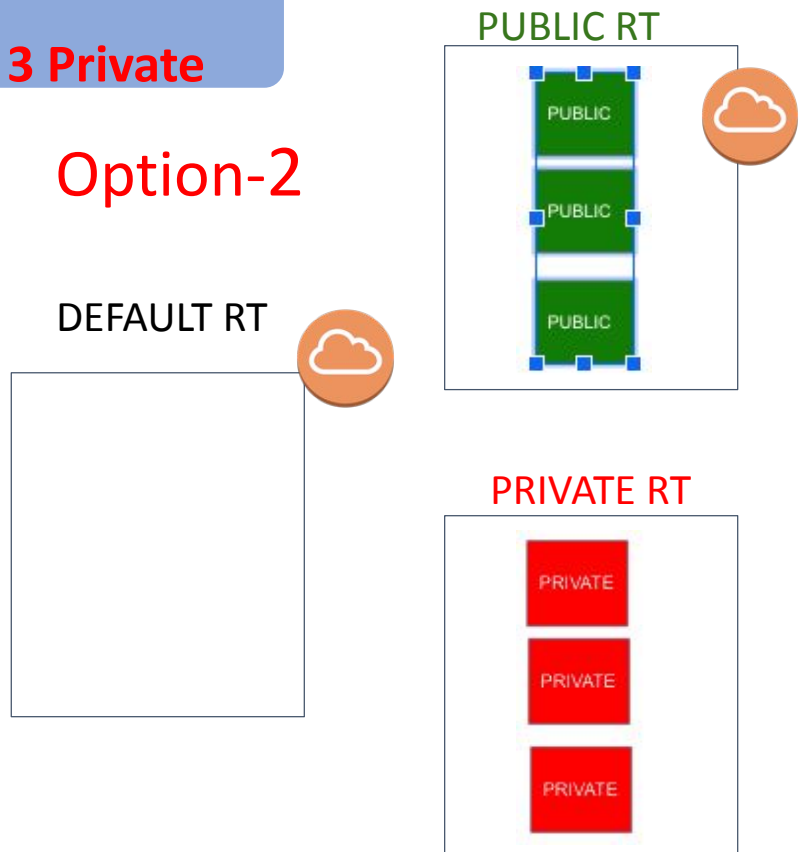**2- By default all subnets are PUBLIC !!!!!!** a.Local
b.0000/0 >>>>IGW

Conclusion

Current= **6 Public**
Desired= **3 Public 3 Private**

Option-1

Option-2

PUBLIC RT

DEFAULT RT

PRIVATE RT

DEFAULT RT

PRIVATE RT

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.0000/0 >>>>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

a.Local

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
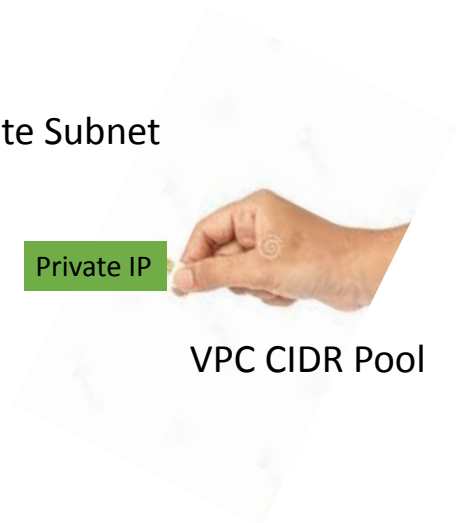
Create in Public Subnet

Create in Private Subnet

Private IP

VPC CIDR Pool

+

Public IP

(Auto Assign IP)

AWS IP POOL

Private IP

VPC CIDR Pool

Route Tables

SUBNET

Private Subnets
Internet Connectivity

Public Subnets
Internet Connectivity