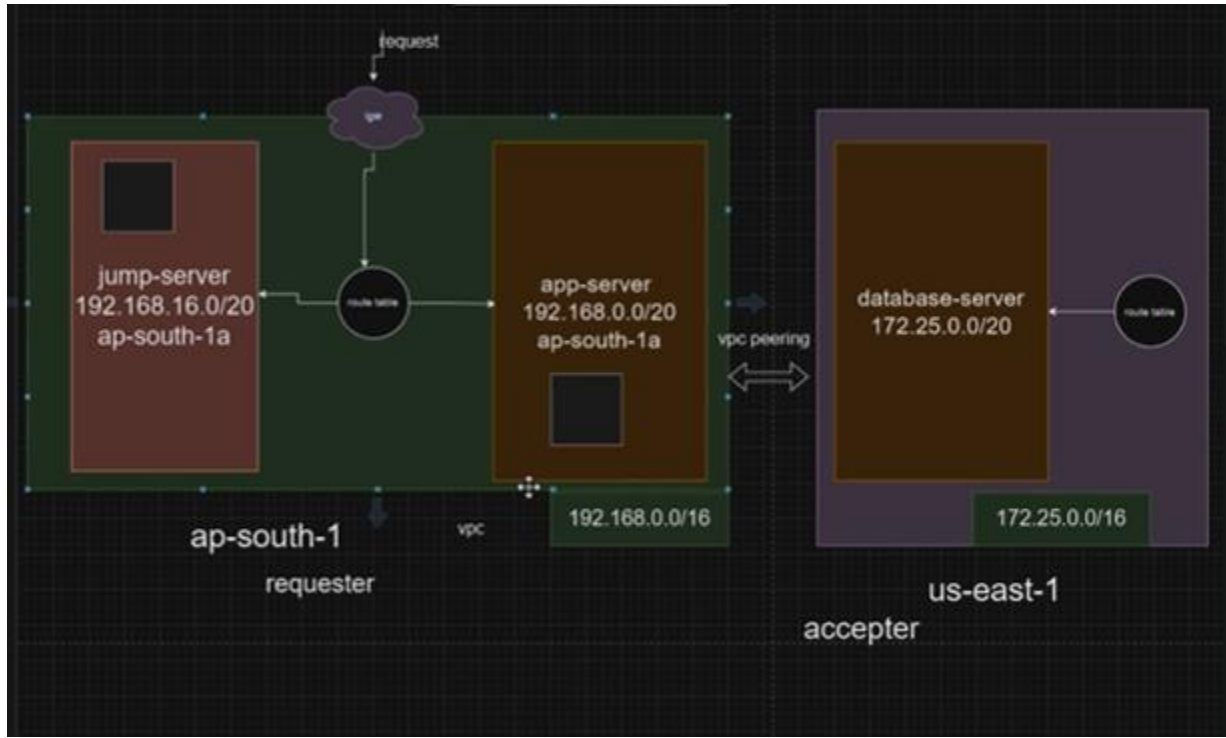


VPC DOCUMENTATION

Dig.1



Step1:- According to diagram we have to create two VPC in two different regions such as in **mumbai ap-south-1(192.168.0.0/16)** and in **N.Vergenia us-east-1(172.25.0.0/16).**

Step2:- Now in Mumbai region create two subnets:-

1. Jump server i.e public server(ap-south-1a)
Ip address:- 192.168.16.0/20
2. App server i.e private server(ap-south-1a)

Ip address:- 192.168.0.0/20

Step 3:- And one subnet in n.vergenia us-east-1

Data-server is private server

Ip address:- (172.25.0.0/20)

Step 4:- Create internate gateways in Mumbai region connect to the vpc_a

Step 5:- Now create two instance in mumbai region i.e a jump server and app server

Step 6:- and create one instance in n.vergenia region i.e a database sever

Step 7:- create a peering connetionin Mumbai region

Create peering connection

A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them privately. [Info](#)

Peering connection settings

Name - optional

Create a tag with a key of 'Name' and a value that you specify.

my-first-vpc-peering

Select a local VPC to peer with

VPC ID (Requester)

vpc-0d59260651000dedc (vpc_a)

VPC CIDRs for vpc-0d59260651000dedc (vpc_a)

CIDR	Status	Status reason
192.168.0.0/16	Associated	-

Select another VPC to peer with

Account

IAM

VPC

Select a local VPC to peer with

VPC ID (Requester)

vpc-0d59260651000dedc (vpc_a) ▼

VPC CIDRs for vpc-0d59260651000dedc (vpc_a)

CIDR	Status	Status reason
192.168.0.0/16	✔ Associated	-

Select another VPC to peer with

Account

☒ My account

☐ Another account

Region

☐ This Region (ap-south-1)

☒ Another Region

US East (N. Virginia) (us-east-1) ▼

VPC ID (Accepter)

vpc-00b502add9f19ebd

aws

Services

Search

[Alt+S]

IAM

VPC

Region

☐ This Region (ap-south-1)

☒ Another Region

US East (N. Virginia) (us-east-1) ▼

VPC ID (Accepter)

vpc-00b502add9f19ebd

Tags

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

Key

Value - optional

🔍 Name X

🔍 my-first-vpc-peering X

Remove

Add new tag

You can add 49 more tags.

Cancel

Create peering connection

Step 8:- now edit a rout table of vpc_a:-

0.0.0.0/0

IGW

172.25.0.0/16

peering connection

The screenshot shows the AWS VPC console interface. On the left, there is a navigation pane with options like 'VPC dashboard', 'EC2 Global View', 'Filter by VPC', 'Virtual private cloud', 'Your VPCs', 'Subnets', 'Route tables', 'Internet gateways', 'Egress-only internet gateways', 'DHCP option sets', 'Elastic IPs', 'Managed prefix lists', 'Endpoints', and 'Endpoint services'. The main content area displays details for a specific route table (rtb-0e53a1b9aec002df5) associated with VPC vpc-0d59260651000dedc. It shows the main flag as 'Yes' and the owner ID as 194271304419. Below this, there are tabs for 'Routes', 'Subnet associations', 'Edge associations', 'Route propagation', and 'Tags'. The 'Routes' tab is active, showing a list of three routes. The first route has destination 0.0.0.0/0 and target igw-0393f334d7743f39b. The second route has destination 172.25.0.0/16 and target pcx-08d7acc1bc12bcd68. The third route has destination 192.168.0.0/16 and target local. All routes are active and propagated.

Destination	Target	Status	Propagated
0.0.0.0/0	igw-0393f334d7743f39b	Active	No
172.25.0.0/16	pcx-08d7acc1bc12bcd68	Active	No
192.168.0.0/16	local	Active	No

Select subnet associate private and public both

Step 9:- Edit a rout table of . verginia:-

192.168.0.0/16

peering connection

The screenshot shows the AWS VPC console interface for a different VPC (vpc-00b502add9f19ebd). The navigation pane on the left is similar to the previous screenshot. The main content area displays details for a specific route table (rtb-0f1b77569bb93c704) associated with VPC vpc-00b502add9f19ebd. It shows the main flag as 'Yes' and the owner ID as 194271304419. Below this, there are tabs for 'Routes', 'Subnet associations', 'Edge associations', 'Route propagation', and 'Tags'. The 'Routes' tab is active, showing a list of three routes. The first route has destination pl-63a5400a and target vpce-07c715fa5eeb39473. The second route has destination 172.25.0.0/16 and target local. The third route has destination 192.168.0.0/16 and target pcx-08d7acc1bc12bcd68. All routes are active and propagated.

Destination	Target	Status	Propagated
pl-63a5400a	vpce-07c715fa5eeb39473	Active	No
172.25.0.0/16	local	Active	No
192.168.0.0/16	pcx-08d7acc1bc12bcd68	Active	No

And private subnet associate it with

Step 10:-now ssh jump server.

- from that sever ssh app server (with the help of copying key).

-and from app server try to ssh database server which is in n. vergaenia

It get ssh but internet connectivity is not yet.

Step 11:- now use a endpoint. Before that create and attach a IAM role for database server i.e s3readonly so that user can only read the file.

Step 12:- create endpoint in n. vergenia:-

Name:- endpoint-1

Aws services

Service name=s3-gateway

Vpc=vpc_B

Select rout table B

Policy=full access

Done.

Step 13:- now check the database server from jump server:-

Aws configure

Enter access key id or secret access key id of Mumbai region

Region name is ap-south-1

Then hit the command:-aws s3 ls

Bucket will be shown

```
[ec2-user@ip-192-168-25-59 ~]$ aws configure
AWS Access Key ID [*****LZEP]: AKIAS2O3Y3LRW2IWFQ4Y
AWS Secret Access Key [None]: 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
Default region name [ap-south-1]:
Default output format [None]:
[ec2-user@ip-192-168-25-59 ~]$ aws s3 ls
2023-07-16 16:39:06 my010bucket
2023-07-16 16:26:00 my020bucket
[ec2-user@ip-192-168-25-59 ~]$
```

i-0d073eba2e87d536e (jump)

PublicIPs: 13.235.246.175 PrivateIPs: 192.168.5.222

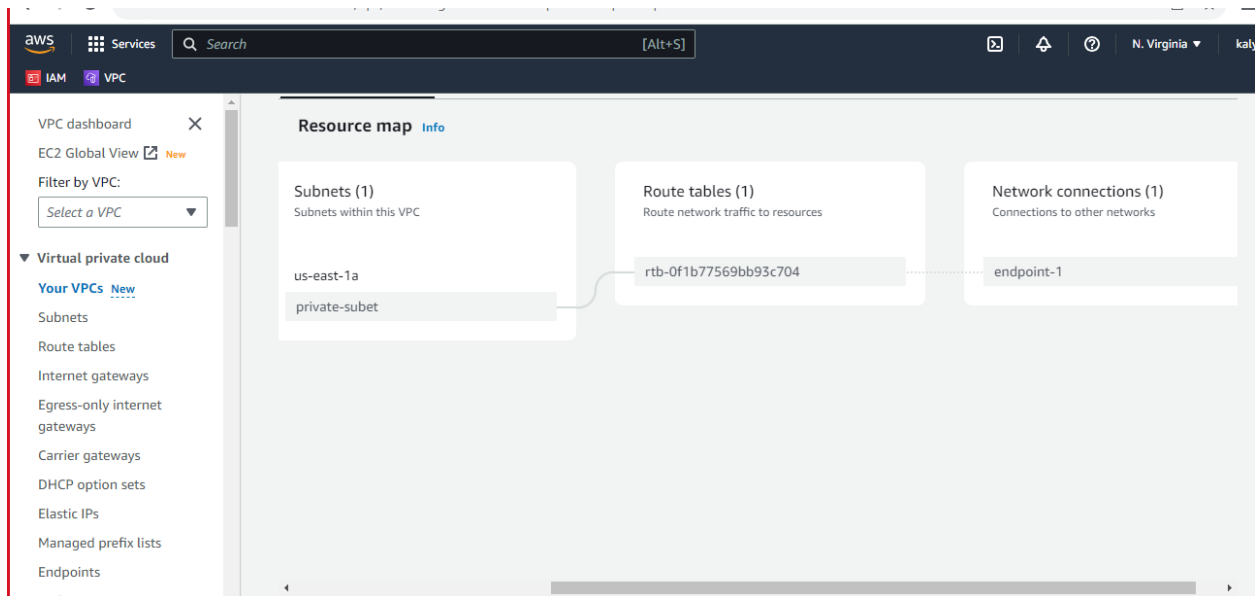
Now ping www.google.com internate connectivity is also visible

```
aws
Services
Q ec2
IAM VPC

Partial credentials found in shared-credentials-file, missing: aws_secret_access_key
[ec2-user@ip-192-168-25-59 ~]$ aws configure
AWS Access Key ID [*****LZEP]:
AWS Secret Access Key [None]: ^C
[ec2-user@ip-192-168-25-59 ~]$ aws configure
AWS Access Key ID [*****LZEP]: AKIAS2O3Y3LRW2IWFQ4Y
AWS Secret Access Key [None]: 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
Default region name [ap-south-1]:
Default output format [None]:
[ec2-user@ip-192-168-25-59 ~]$ aws s3 ls
2023-07-16 16:39:06 my010bucket
2023-07-16 16:26:00 my020bucket
[ec2-user@ip-192-168-25-59 ~]$ ping www.google.com
PING www.google.com (142.250.192.68) 56(84) bytes of data.
64 bytes from bom12s16-in-f4.1e100.net (142.250.192.68): icmp_seq=1 ttl=109 time=1.80 ms
64 bytes from bom12s16-in-f4.1e100.net (142.250.192.68): icmp_seq=2 ttl=109 time=1.46 ms
64 bytes from bom12s16-in-f4.1e100.net (142.250.192.68): icmp_seq=3 ttl=109 time=1.44 ms
64 bytes from bom12s16-in-f4.1e100.net (142.250.192.68): icmp_seq=4 ttl=109 time=1.47 ms
64 bytes from bom12s16-in-f4.1e100.net (142.250.192.68): icmp_seq=5 ttl=109 time=1.48 ms
^C
--- www.google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4006ms
rtt min/avg/max/mdev = 1.443/1.529/1.795/0.133 ms
[ec2-user@ip-192-168-25-59 ~]$
```

i-0d073eba2e87d536e (jump)

Route table of vpc_B



Route table of vpc_A

