

VPC peering with different region

Created First VPC in Mumbai

The image shows two screenshots from the AWS Management Console. The top screenshot is the 'Create VPC' wizard, and the bottom screenshot is the 'Your VPCs' dashboard.

Create VPC settings:

- Resources to create:** ☒ VPC only
- Name tag - optional:** vpcMumbai
- IPv4 CIDR block:** ☒ IPv4 CIDR manual input
59.85.0.0/16
- IPv6 CIDR block:** ☒ No IPv6 CIDR block

Your VPCs (2):

Name	VPC ID	State	Block Public...	IPv4 CIDR	IPv6 CIDR	DHCP option se
-	vpc-074321e9b52b24a31	Available	Off	172.31.0.0/16	-	dopt-0509027c
vpcMumbai	vpc-0158059f3a5413fa0	Available	Off	59.85.0.0/16	-	dopt-0509027c

Created second VPC in osaka

The image shows two screenshots from the AWS Management Console. The top screenshot is the 'Create VPC' wizard, and the bottom screenshot is the 'Your VPCs' dashboard.

Create VPC Wizard:

- VPC settings**
- Resources to create:** ☒ VPC only, ☐ VPC and more
- Name tag - optional:** vpcOsaka
- IPv4 CIDR block:** ☒ IPv4 CIDR manual input, ☐ IPAM-allocated IPv4 CIDR block
- IPv4 CIDR:** 172.32.0.0/16
- IPv6 CIDR block:** ☒ No IPv6 CIDR block, ☐ IPAM-allocated IPv6 CIDR block, ☐ Amazon-provided IPv6 CIDR block

Your VPCs Dashboard:

Notification: You successfully created vpc-0448b6e722aca49e2 / vpcOsaka

Name	VPC ID	State	Block Public...	IPv4 CIDR	IPv6 CIDR	DHCP op...
-	vpc-023c13e84f5d51972	Available	Off	172.31.0.0/16	-	dopt-06a
vpcOsaka	vpc-0448b6e722aca49e2	Available	Off	172.32.0.0/16	-	dopt-06a

Left sidebar: 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, NAT gateways, Peering connections, Security, Network ACLs, Security groups, PrivateLink and Lattice.

aws

Search

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Mumbai

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VPC > Subnets > Create subnet

Create subnet Info

VPC
VPC ID
Create subnets in this VPC.
vpc-0158059f3a5413fa0 (vpcMumbai) ▼

Associated VPC CIDRs
IPv4 CIDRs
59.85.0.0/16

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.
Subnet 1 of 1
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
subnetA
The name can be up to 256 characters long.
Availability Zone Info

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Mumbai

Rohan Borate

VPC > Subnets > Create subnet

Subnet settings
Specify the CIDR blocks and Availability Zone for the subnet.
Subnet 1 of 1
Subnet name
Create a tag with a key of 'Name' and a value that you specify.
subnetA
The name can be up to 256 characters long.
Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.
Asia Pacific (Mumbai) / ap-south-1a ▼
IPv4 VPC CIDR block Info
Choose the VPC's IPv4 CIDR block for the subnet. The subnet's IPv4 CIDR must lie within this block.
59.85.0.0/16 ▼
IPv4 subnet CIDR block
59.85.0.0/17 32,768 IPs
Tags - optional
Key Value - optional

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Mumbai

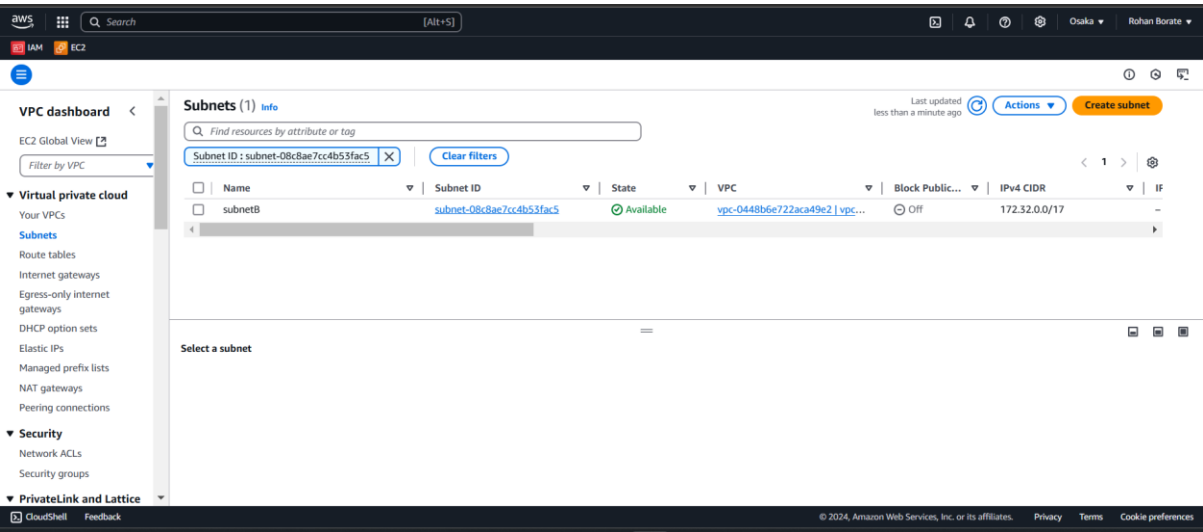
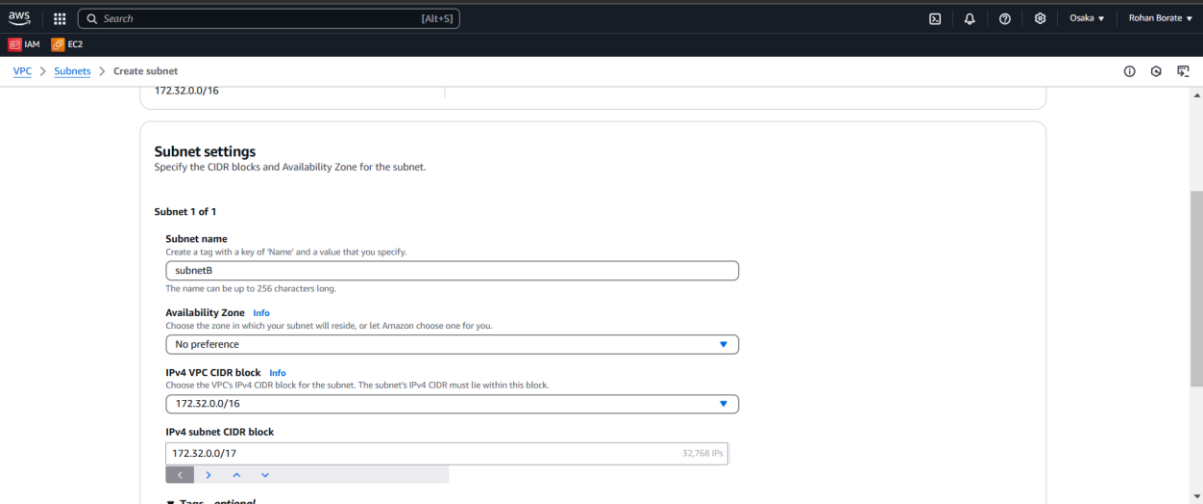
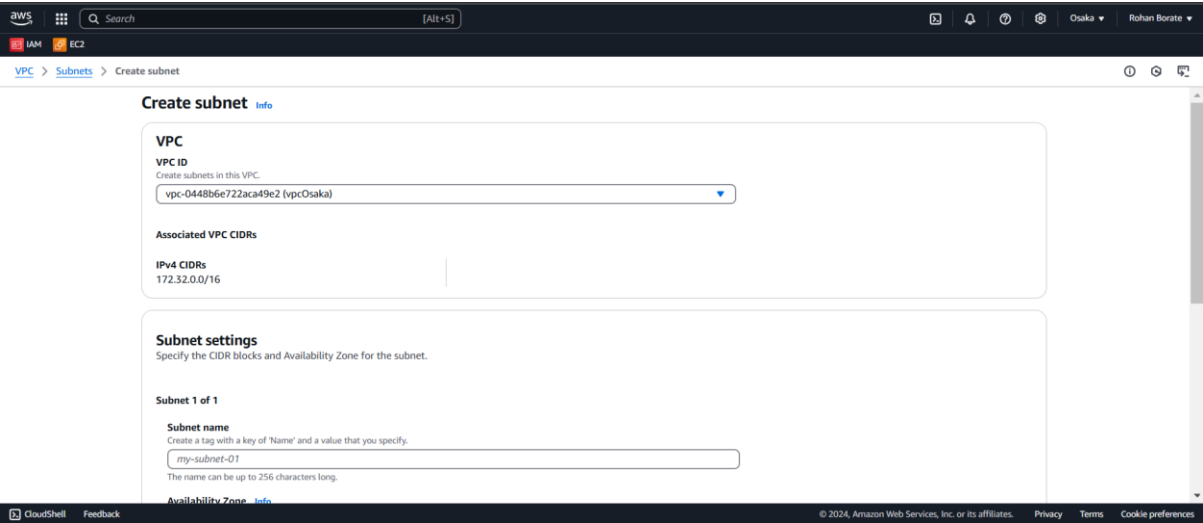
Rohan Borate

VPC dashboard > Subnets

You have successfully created 1 subnet: subnet-077803d3e5dd0da06✕

Subnets (1) Info
Find resources by attribute or tag
Subnet ID : subnet-077803d3e5dd0da06 ✕ Clear filters
1
Subnet ID Name Subnet ID State VPC Block Public... IPv4 CIDR IPv6 CIDR
subnetA subnet-077803d3e5dd0da06 Available vpc-0158059f3a5413fa0 | vpc... Off 59.85.0.0/17 --

Create subnet in Osaka region



create internet Gateway for the VPC in mumbai region

Create internet gateway [Info](#)

An internet gateway is a virtual router that connects a VPC to the internet. To create a new internet gateway specify the name for the gateway below.

Internet gateway settings

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

internetgateway

Tags - optional
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
Q, Name

Value - optional
Q, internetgateway

[Remove](#)

[Add new tag](#)
You can add 49 more tags.

[Cancel](#) [Create internet gateway](#)

Internet gateways (2) [Info](#)

[Actions](#) [Create internet gateway](#)

<input type="checkbox"/>	Name	Internet gateway ID	State	VPC ID	Owner
<input type="checkbox"/>	-	igw-01c2530a6b71388e4	Attached	vpc-074321c9b52b24a31	555786028785
<input type="checkbox"/>	internetgateway	igw-0c497ce17ad351e20	Detached	-	555786028785

Select an internet gateway above

Attach internet gateway to VPC

Attach to VPC (igw-0c497ce17ad351e20) [Info](#)

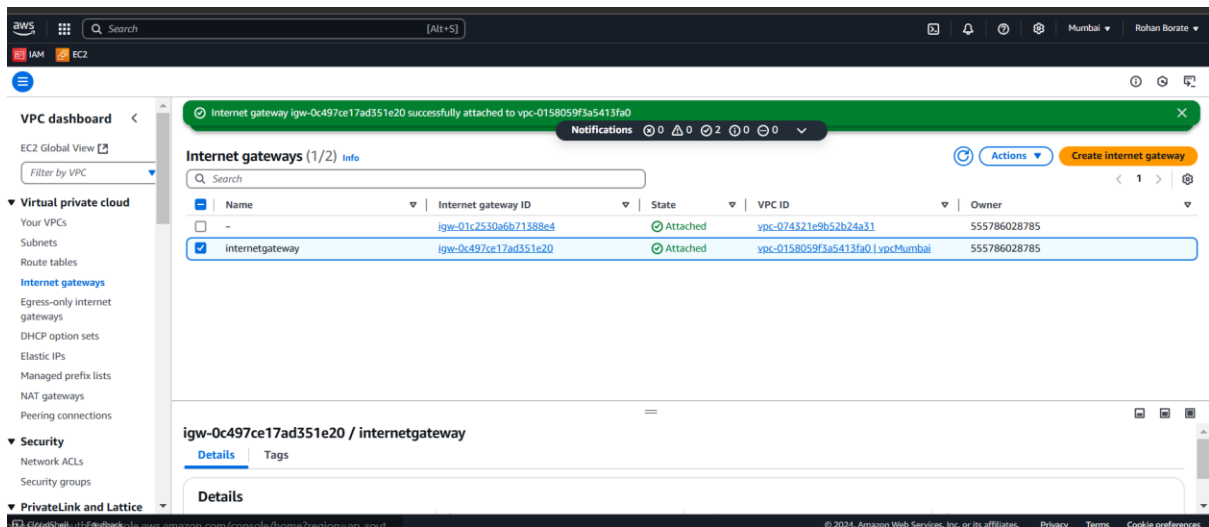
VPC
Attach an internet gateway to a VPC to enable the VPC to communicate with the internet. Specify the VPC to attach below.

Available VPCs
Attach the internet gateway to this VPC.

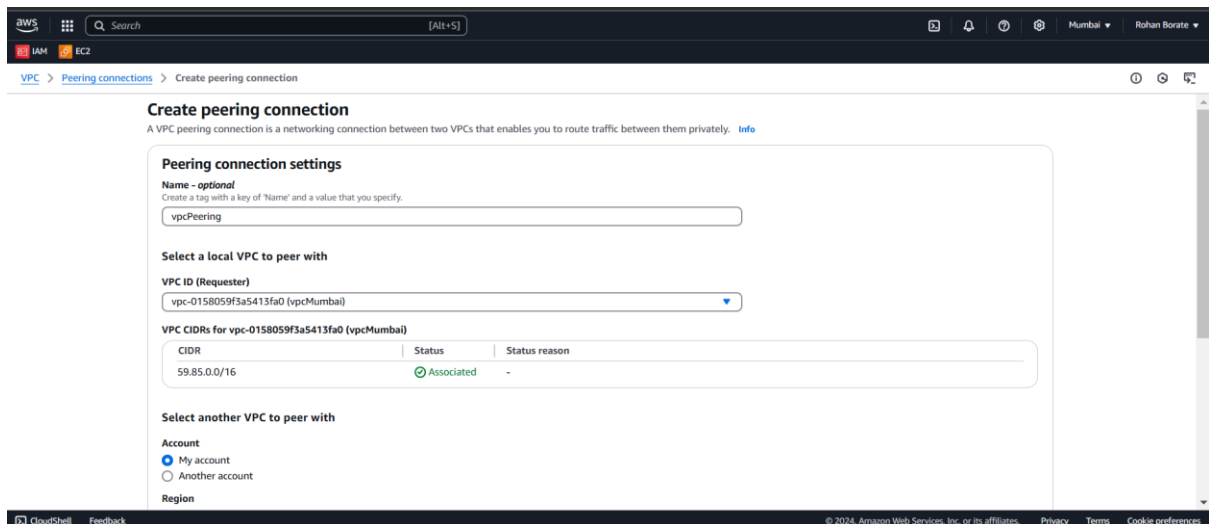
vpc-0158059f3a5413fa0

[AWS Command Line Interface command](#)

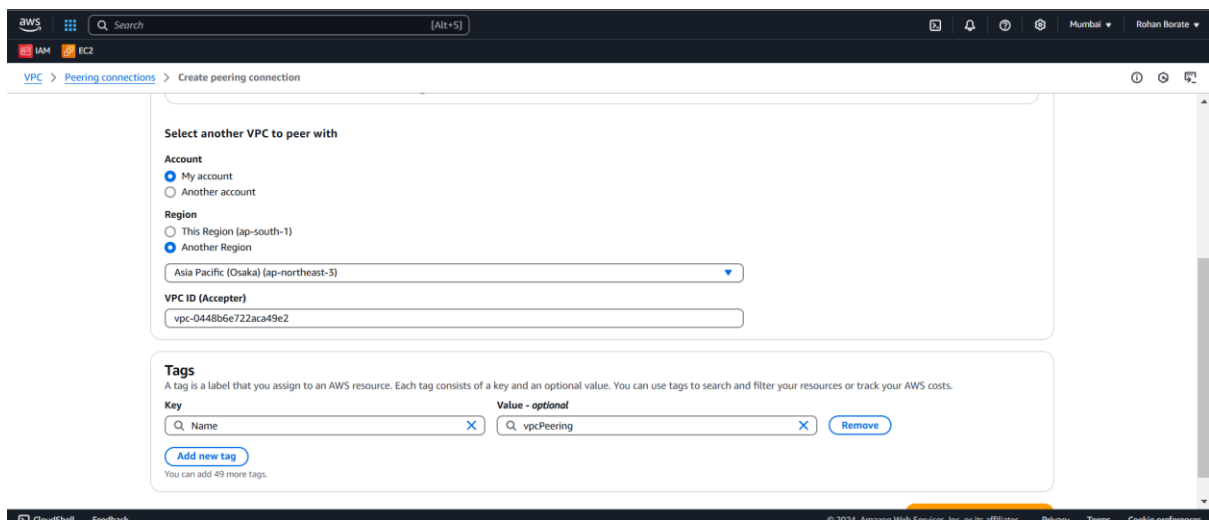
[Cancel](#) [Attach internet gateway](#)



Create a peering request from vpcMumbai to vpcOska .



Get the VPC ID from the VPC in Oska , for peering



VPC Peering request is created

The screenshot shows the AWS VPC dashboard in the Mumbai region. A green notification banner at the top states: "A VPC peering connection pcx-05c3d11593f641395 / vpcPeering has been requested. Remember to change your region to ap-northeast-3 to accept the peering connection." Below this, the "Peering connections (1)" section shows a table with one entry:

Name	Peering connection ID	Status	Requester VPC	Accepter VPC	Requester CIDRs
vpcPeering	pcx-05c3d11593f641395	Pending acceptance	vpc-0158059f3a5413fa0 / vpc...	vpc-0448b6e722aca49e2	59.85.0.0/16

The left sidebar shows the VPC dashboard navigation menu, including options like "Virtual private cloud", "Security", and "PrivateLink and Lattice".

Checking request is available in in Osaka region VPC

The screenshot shows the AWS VPC dashboard in the Osaka region. The "Peering connections (1)" section shows the same table as the previous screenshot:

Name	Peering connection ID	Status	Requester VPC	Accepter VPC	Requester CIDRs
-	pcx-05c3d11593f641395	Pending acceptance	vpc-0158059f3a5413fa0	vpc-0448b6e722aca49e2 / vpc...	59.85.0.0/16

The left sidebar shows the VPC dashboard navigation menu, including options like "Virtual private cloud", "Security", and "PrivateLink and Lattice".

Accepting the Peering request

The screenshot shows the AWS VPC dashboard in the Osaka region. A modal dialog titled "Accept VPC peering connection request" is displayed, asking for confirmation to accept the request. The dialog contains the following information:

Requester VPC	Accepter VPC	Requester CIDRs
vpc-0158059f3a5413fa0	vpc-0448b6e722aca49e2 / vpcOsaka	59.85.0.0/16

Requester Region	Accepter Region
Mumbai (ap-south-1)	Osaka (ap-northeast-3)

Requester owner ID	Accepter owner ID
555786028785 (This account)	555786028785 (This account)

The dialog also includes a "Cancel" button and an "Accept request" button. The background shows the same peering connection table as the previous screenshots.

Check in Mumbai vpc , request status is now active

The screenshot shows the AWS VPC dashboard for the Mumbai region. The left sidebar contains navigation links for VPC dashboard, EC2 Global View, Virtual private cloud, Security, and PrivateLink and Lattice. The main content area displays 'Peering connections (1)' with a table showing one active connection. The table has columns for Name, Peering connection ID, Status, Requester VPC, Acceptor VPC, and Requester CIDRs. The connection 'vpcPeering' is active and links two VPCs.

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDRs
vpcPeering	pcx-05c3d11593f641395	Active	vpc-0158059f3a5413fa0 / vpc...	vpc-0448b6e722aca49e2	59.85.0.0/16

Create VPC routing for the both region VPC

The screenshot shows the 'Create route table' form in the AWS VPC dashboard. The form includes fields for 'Name - optional' (routeVPCMumbai) and 'VPC' (vpc-0158059f3a5413fa0). It also has a 'Tags' section with a key 'Name' and value 'routeVPCMumbai'. The 'Create route table' button is highlighted.

Add VPC Peering in route table, make sure we have assigned another VPC CIDR range in destination

The screenshot shows the 'Edit routes' form in the AWS VPC dashboard. The form includes a 'Destination' field (59.85.0.0/16) and a 'Target' dropdown menu (local). The 'Status' is 'Active'. The 'Propagated' checkbox is unchecked. The 'Add route' button is highlighted.

Add route for the Internet Gateway

Search

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EC2

VPC

Route tables

rtb-0d63b32484ee7701a

Edit routes

Edit routes

Destination	Target	Status	Propagated
59.85.0.0/16	local	Active	No
172.32.0.0/16	Peering Connection	Active	No
0.0.0.0/0	Internet Gateway	-	No

Add route

Cancel

Preview

Save changes

CloudShell

Feedback

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VPC

Route tables

rtb-0d63b32484ee7701a

Updated routes for rtb-0d63b32484ee7701a / routeVPCMumbai successfully

Details

rtb-0d63b32484ee7701a / routeVPCMumbai

Actions

Details

Route table ID

rtb-0d63b32484ee7701a

Main

No

Explicit subnet associations

-

Edge associations

-

VPC

vpc-0158059f3a5413fa0 | vpcMumbai

Owner ID

555786028785

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (3)

Filter routes

Both

Edit routes

< 1 >

Destination

Target

Status

Propagated

0.0.0.0/0

igw-0c497ce17ad351e20

Active

No

59.85.0.0/16

local

Active

No

172.32.0.0/16

pcx-05c3d11593f641395

Active

No

Associate the subnetA

The screenshot shows the 'Edit subnet associations' page in the AWS console. The breadcrumb trail is 'VPC > Route tables > rtb-0d63b32484ee7701a > Edit subnet associations'. The page title is 'Edit subnet associations' with a subtitle 'Change which subnets are associated with this route table.' Below this, there are two sections: 'Available subnets (1/1)' and 'Selected subnets'. The 'Available subnets' section contains a table with columns: Name, Subnet ID, IPv4 CIDR, IPv6 CIDR, and Route table ID. One row is visible: 'subnetA' with Subnet ID 'subnet-077803d3e5dd0da06', IPv4 CIDR '59.85.0.0/17', and Route table ID 'Main (rtb-0eeef8a79190714d8)'. The 'Selected subnets' section shows 'subnet-077803d3e5dd0da06 / subnetA' with a close button. At the bottom right, there are 'Cancel' and 'Save associations' buttons.

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
subnetA	subnet-077803d3e5dd0da06	59.85.0.0/17	-	Main (rtb-0eeef8a79190714d8)

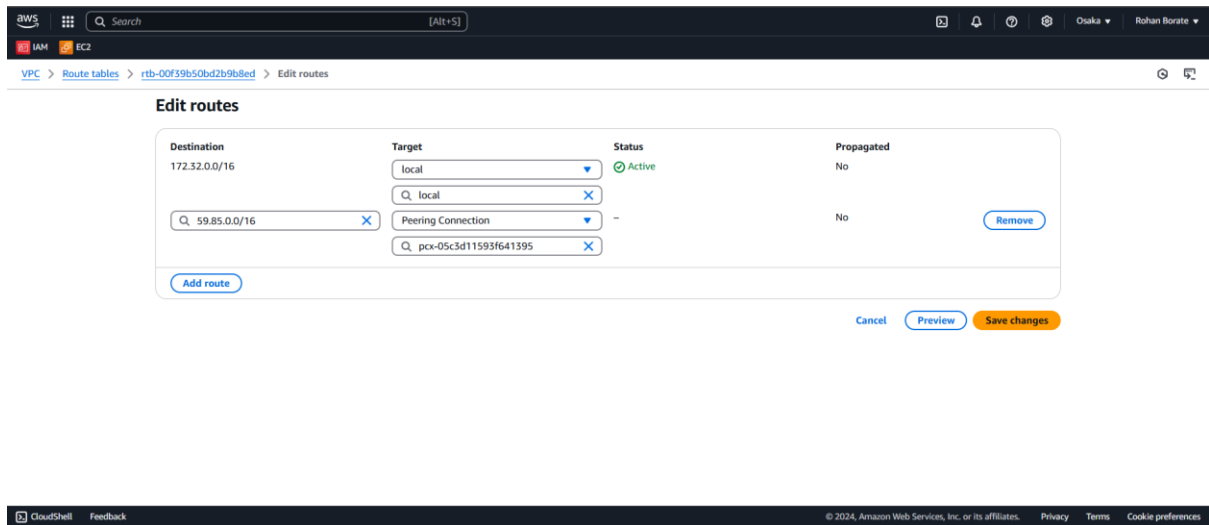
The screenshot shows the 'rtb-0d63b32484ee7701a / routeVPCMumbai' page in the AWS console. A green notification banner at the top states: 'You have successfully updated subnet associations for rtb-0d63b32484ee7701a / routeVPCMumbai.' The page has a left sidebar with navigation links for VPC dashboard, EC2 Global View, and various VPC resources. The main content area has tabs for 'Routes', 'Subnet associations', 'Edge associations', 'Route propagation', and 'Tags'. The 'Subnet associations' tab is active, showing 'Explicit subnet associations (1)' and 'Subnets without explicit associations (0)'. The 'Explicit subnet associations' section contains a table with columns: Name, Subnet ID, IPv4 CIDR, and IPv6 CIDR. One row is visible: 'subnetA' with Subnet ID 'subnet-077803d3e5dd0da06' and IPv4 CIDR '59.85.0.0/17'. The 'Subnets without explicit associations' section states: 'The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:'. At the bottom right, there are 'Cancel' and 'Create route table' buttons.

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
subnetA	subnet-077803d3e5dd0da06	59.85.0.0/17	-

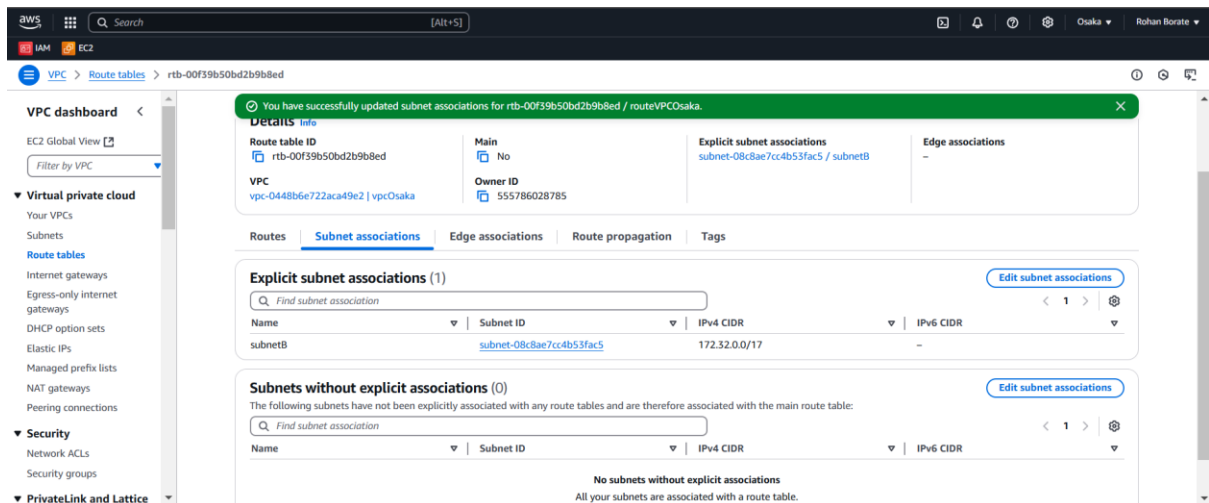
Create route table in OSAKA region and add routes for VPC Peering

The screenshot shows the 'Create route table' page in the AWS console. The breadcrumb trail is 'VPC > Route tables > Create route table'. The page title is 'Create route table' with an 'Info' link. Below the title, there is a description: 'A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.' The page has two main sections: 'Route table settings' and 'Tags'. The 'Route table settings' section has a 'Name - optional' field with the value 'routeVPCOsaka' and a 'VPC' dropdown menu with the value 'vpc-0448b6e722aca49e2 (vpcOsaka)'. The 'Tags' section has a 'Key' field with the value 'Name' and a 'Value - optional' field with the value 'routeVPCOsaka'. There is an 'Add new tag' button and a 'Remove' button. At the bottom right, there are 'Cancel' and 'Create route table' buttons.

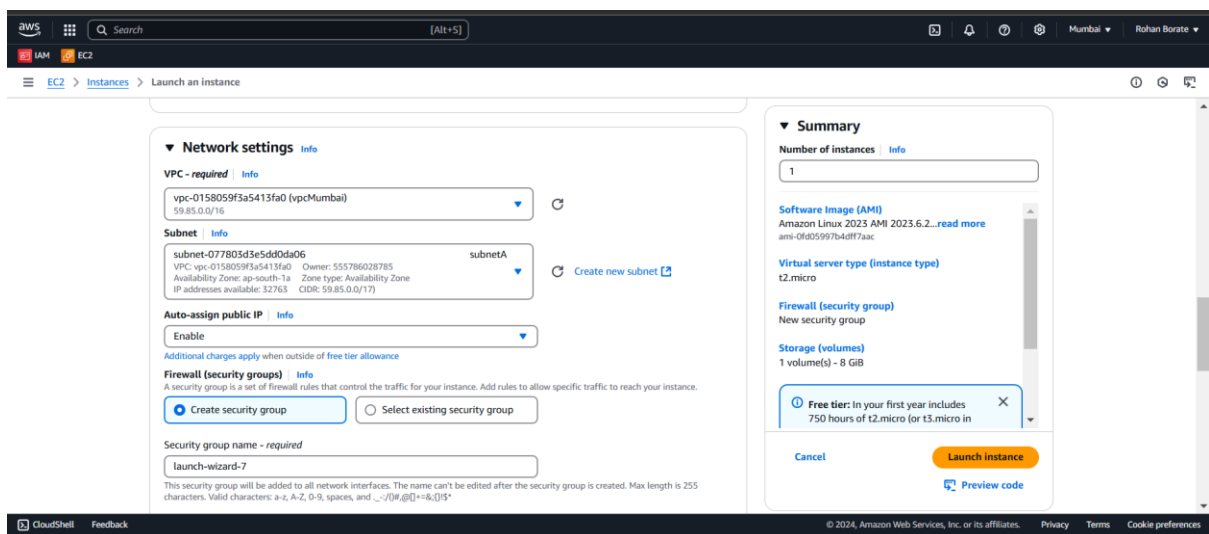
Add VPC Peering in routes , make sure we have assigned another VPC CIDR range in destination

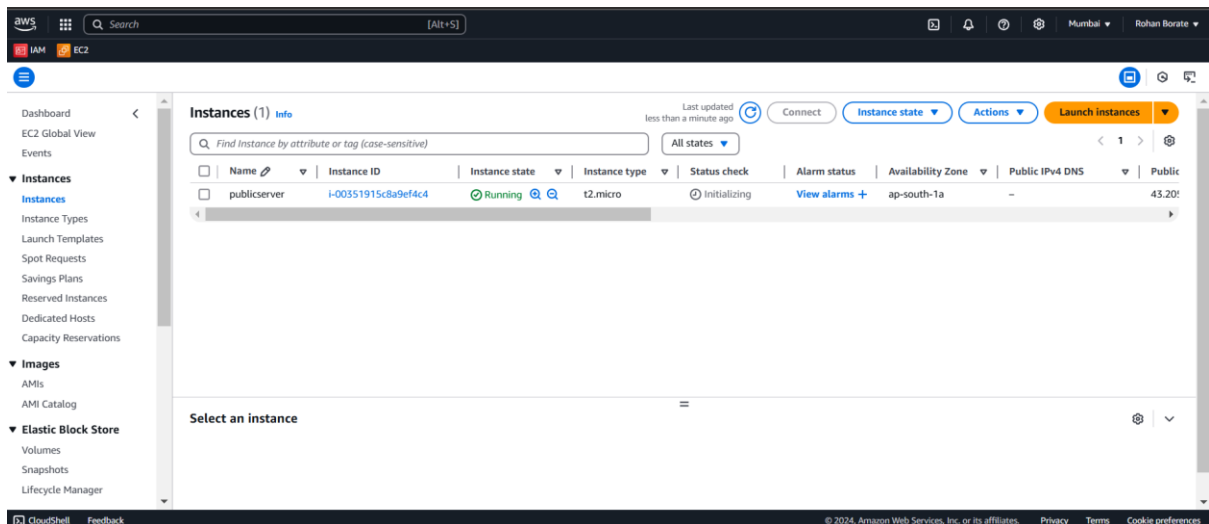


Associate the subnetB

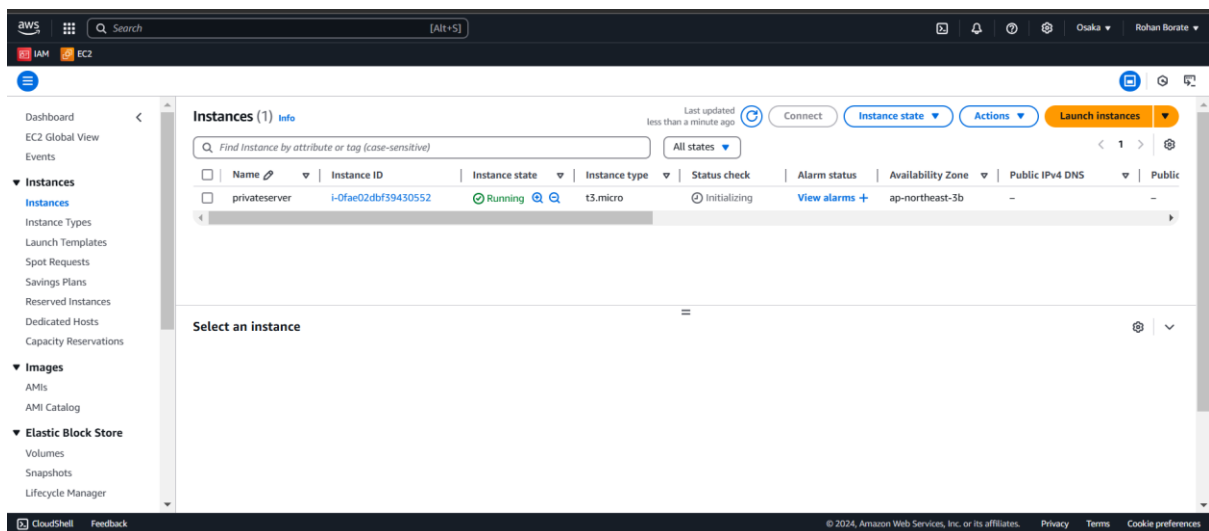
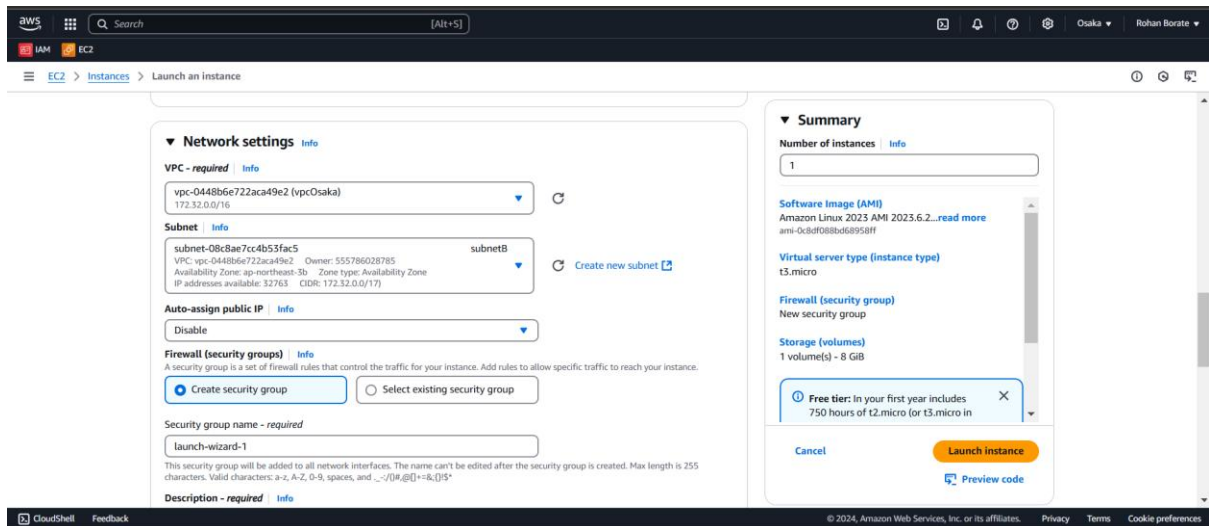


Creating public instance in Mumbai region vpc because it is a public VPC , we have attached internet Gateway for this VPC





Creating the private instance in Osaka region



Taking the access of the public server

```
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-59-85-13-108 ~]$ ping 172.32.107.144
PING 172.32.107.144 (172.32.107.144) 56(84) bytes of data.
^C
--- 172.32.107.144 ping statistics ---
53 packets transmitted, 0 received, 100% packet loss, time 54086ms

[ec2-user@ip-59-85-13-108 ~]$
```

setting the inbound and outbound rules for the both the instances

EC2 > Security Groups > sg-0e2b52f48c5a07cd0 - launch-wizard-7 > Edit inbound rules

Edit inbound rules

Inbound rules control the incoming traffic that's allowed to reach the instance.

Security group rule ID	Type	Protocol	Port range	Source	Description - optional		
sgr-087e25797d3c92827	All ICMP - IPv4	ICMP	All	Custom	Q	0.0.0.0/0	Delete
sg-0f71be497c6ce6810	SSH	TCP	22	Custom	Q	0.0.0.0/0	Delete
sg-0c9f19abb8cfe6d01	All TCP	TCP	0 - 65535	Custom	Q	0.0.0.0/0	Delete
sg-0c8e6feb286a02e00	All traffic	All	All	Custom	Q	0.0.0.0/0	Delete
sg-0ab7eaac3f5375f0b	IMAP	TCP	143	Custom	Q	0.0.0.0/0	Delete

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Now check we are able to Ping the private IP of private instance because they are now in the same network

```
[ec2-user@ip-59-85-13-108 ~]$ ping 172.32.107.144
PING 172.32.107.144 (172.32.107.144) 56(84) bytes of data.
64 bytes from 172.32.107.144: icmp_seq=1 ttl=127 time=137 ms
64 bytes from 172.32.107.144: icmp_seq=2 ttl=127 time=136 ms
64 bytes from 172.32.107.144: icmp_seq=3 ttl=127 time=136 ms
64 bytes from 172.32.107.144: icmp_seq=4 ttl=127 time=136 ms
64 bytes from 172.32.107.144: icmp_seq=5 ttl=127 time=137 ms
64 bytes from 172.32.107.144: icmp_seq=6 ttl=127 time=136 ms
64 bytes from 172.32.107.144: icmp_seq=7 ttl=127 time=137 ms
```