

VPC PEERING

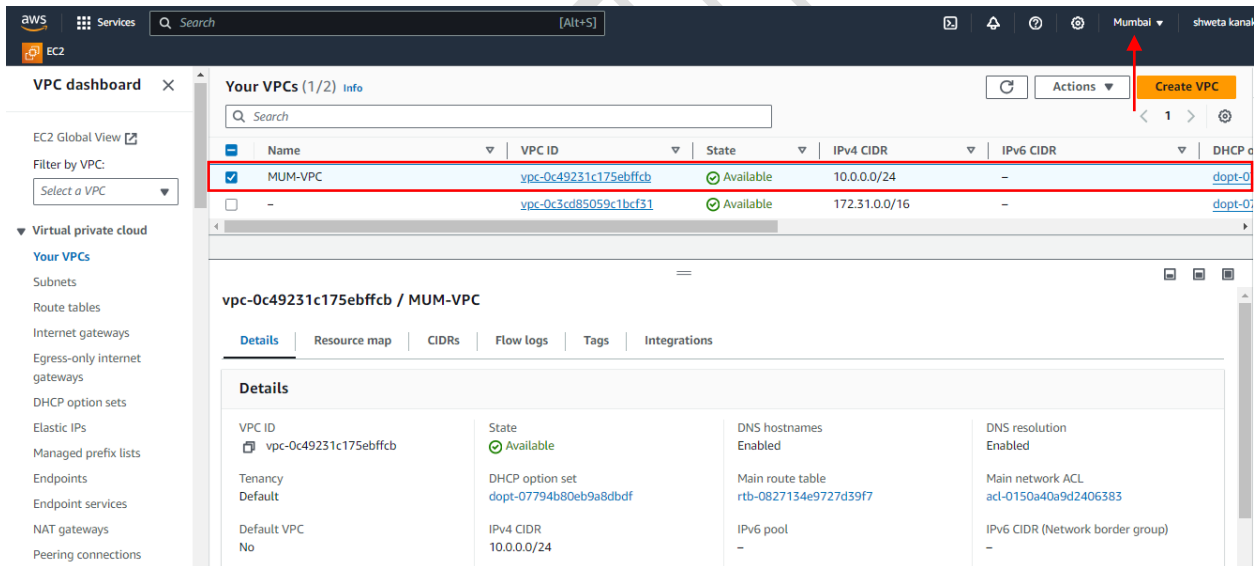
Peering works on same region/different region/different account.

Step 1 : Select the region you want

Here, I have selected the Mumbai and Ohio Region

In the Mumbai Region

- Create VPC
- Create an Internet Gateway
- Attach Internet Gateway to the VPC
- Create a subnet
- Create Route Table, edit subnet associations and add route



The screenshot shows the AWS Management Console interface for the Mumbai region. The 'Your VPCs (1/2)' table lists two VPCs. The first VPC, 'MUM-VPC' with ID 'vpc-0c49231c175ebffcb', is highlighted with a red box. Below the table, the details for this VPC are displayed, showing it is in an 'Available' state with a main route table 'rtb-0827134e9727d39f7' and DNS resolution enabled.

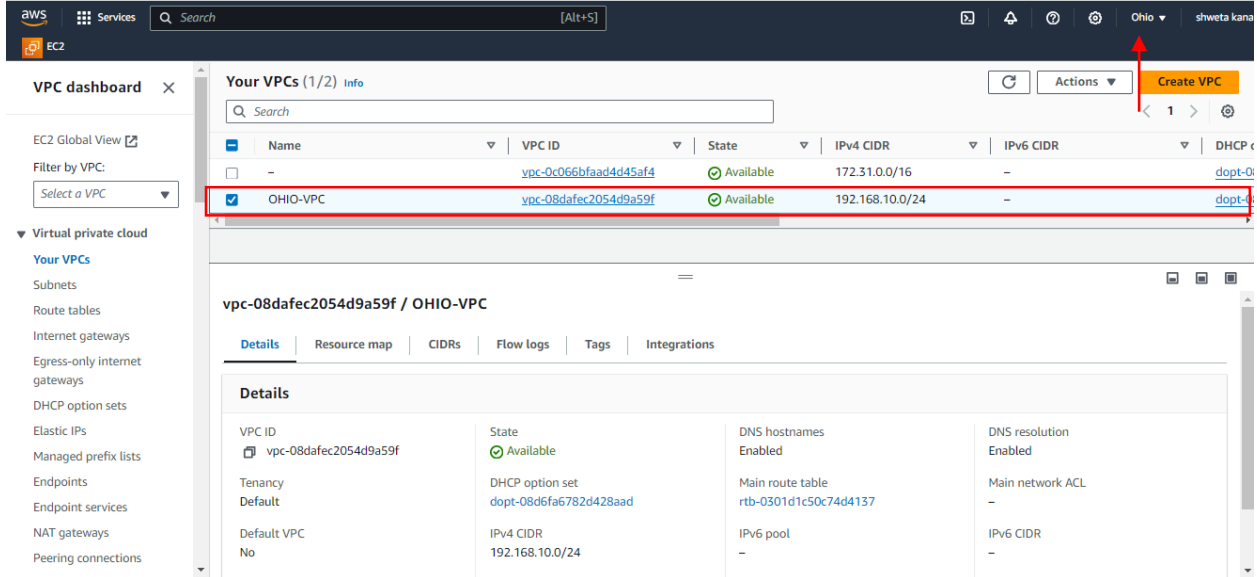
Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP
MUM-VPC	vpc-0c49231c175ebffcb	Available	10.0.0.0/24	-	dopt-0...
-	vpc-0c3cd85059c1bcf31	Available	172.31.0.0/16	-	dopt-0...

Details for vpc-0c49231c175ebffcb / MUM-VPC

Property	Value
VPC ID	vpc-0c49231c175ebffcb
State	Available
DNS hostnames	Enabled
DNS resolution	Enabled
Tenancy	Default
DHCP option set	dopt-07794b80eb9a8dbdf
Main route table	rtb-0827134e9727d39f7
Main network ACL	acl-0150a40a9d2406383
Default VPC	No
IPv4 CIDR	10.0.0.0/24
IPv6 pool	-
IPv6 CIDR (Network border group)	-

Step 2 : In Ohio Region

- Create VPC
- Create an Internet Gateway
- Attach Internet Gateway to the VPC
- Create a subnet
- Create Route Table, edit subnet associations and add route



VPC dashboard

EC2 Global View

Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

Your VPCs (1/2)

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR	DHCP
-	vpc-0c066bfaad4d45af4	Available	172.31.0.0/16	-	dopt-0...
OHIO-VPC	vpc-08dafec2054d9a59f	Available	192.168.10.0/24	-	dopt-0...

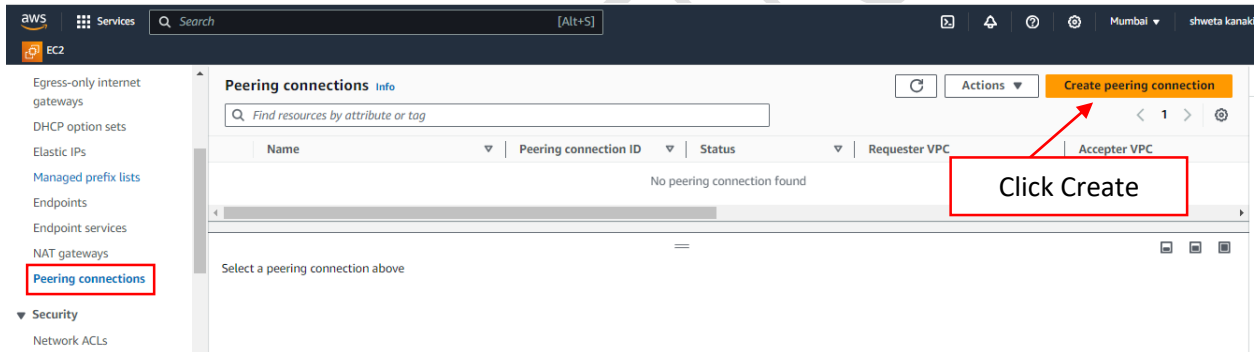
vpc-08dafec2054d9a59f / OHIO-VPC

Details | Resource map | CIDRs | Flow logs | Tags | Integrations

Details

VPC ID vpc-08dafec2054d9a59f	State Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-08d6fa6782d428aad	Main route table rtb-0301d1c50c74d4137	Main network ACL -
Default VPC No	IPv4 CIDR 192.168.10.0/24	IPv6 pool -	IPv6 CIDR -

Step 3 : In Mumbai Region – Create Peering connection



Peering connections

Find resources by attribute or tag

Name	Peering connection ID	Status	Requester VPC	Accepter VPC
No peering connection found				

Select a peering connection above

Create peering connection

Click Create

[VPC](#) > [Peering connections](#) > Create peering connection

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.

mum-ohio-peering

Give a name

Select a local VPC to peer with

VPC ID (Requester)

vpc-0c49231c175ebffcb (MUM-VPC)

Select the Created VPC ID

VPC CIDRs for vpc-0c49231c175ebffcb (MUM-VPC)

CIDR	Status	Status reason
10.0.0.0/24	✓ Associated	-

Select another VPC to peer with

Account

☒ My account Select My Account

☐ Another account

Region

☐ This Region (ap-south-1)

☒ Another Region Select Another Region

US East (Ohio) (us-east-2) Choose the Region where you need to peer

VPC ID (Acceptor)

vpc-08dafec2054d9a59f Paste the accepters' VPC ID

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

Q Name X Q mum-ohio-peering X Remove

Add new tag

You can add 49 more tags.

Click Create

Cancel Create peering connection

Peering Connection has been requested from Mumbai region

A VPC peering connection pcx-0c902087b1e22047d / mum-ohio-peering has been requested.
Remember to change your region to us-east-2 to accept the peering connection.

VPC > Peering connections > pcx-0c902087b1e22047d

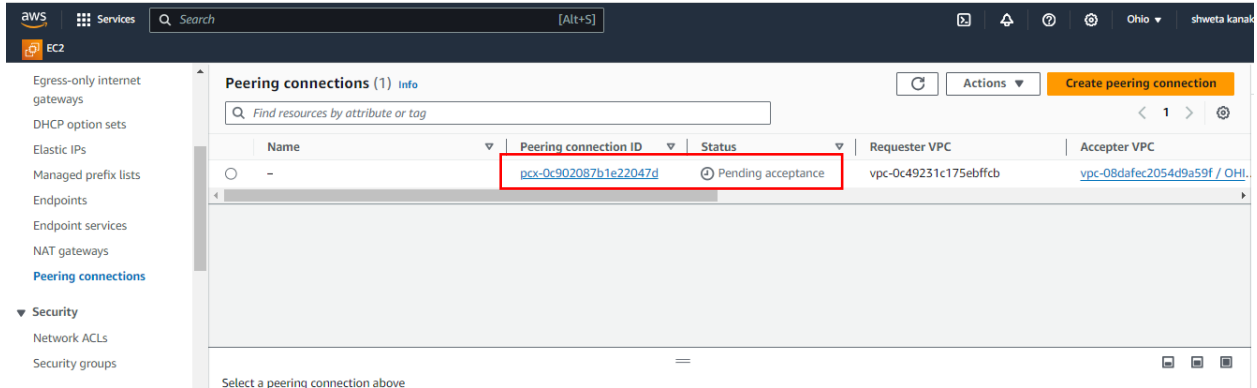
pcx-0c902087b1e22047d / mum-ohio-peering

Details info

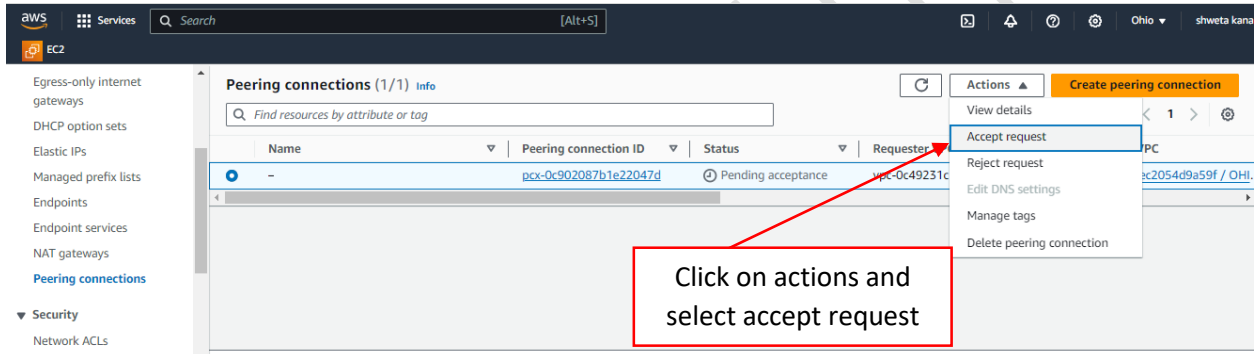
Requester owner ID 473869189128	Acceptor owner ID 473869189128	VPC Peering connection ARN arn:aws:ec2:ap-south-1:473869189128:vpc-peering-connection/pcx-0c902087b1e22047d
Peering connection ID pcx-0c902087b1e22047d	Requester VPC vpc-0c49231c175ebffcb / MUM-VPC	Acceptor VPC vpc-08dafec2054d9a59f
Status Initiating Request to 473869189128	Requester CIDRs 10.0.0.0/24	Acceptor CIDRs -
Expiration time Tuesday, June 4, 2024 at 15:16:02 GMT+5:30	Requester Region Mumbai (ap-south-1)	Acceptor Region Ohio (us-east-2)

DNS Route tables Tags

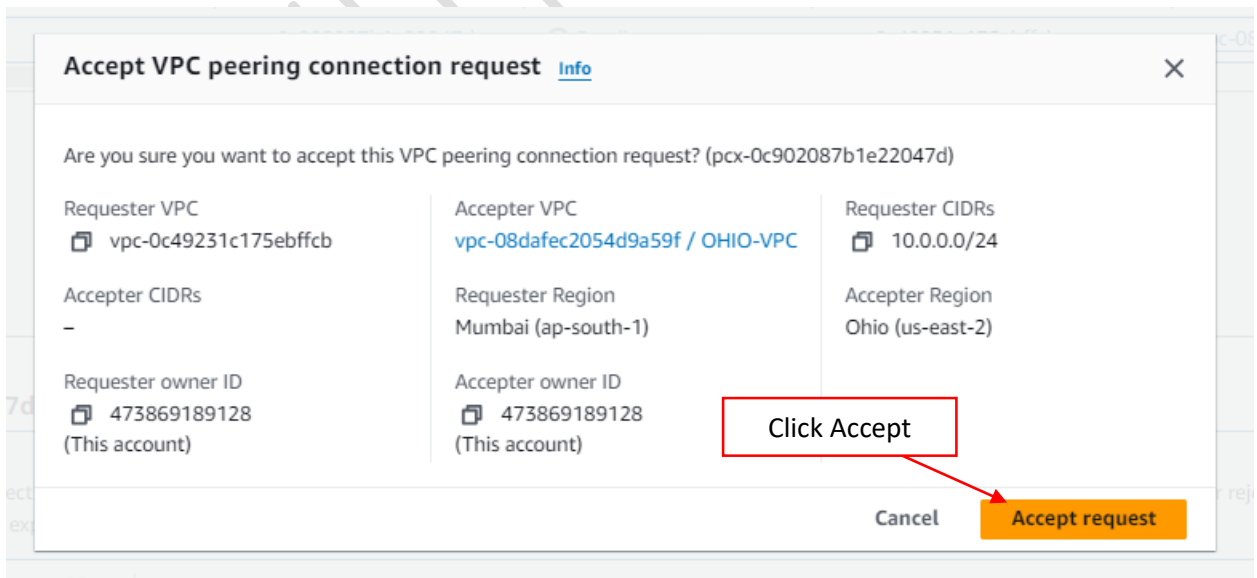
Step 4 : Now go to Ohio region and accept the peering request



The screenshot shows the AWS Management Console interface for the Ohio region. The left sidebar lists various services, with 'Peering connections' selected under the 'Network' category. The main panel displays a table of peering connections. One connection is listed with the ID 'pcx-0c902087b1e22047d' and a status of 'Pending acceptance'. A red box highlights the ID and status columns.



This screenshot shows the 'Actions' menu for the selected peering connection. The 'Accept request' option is highlighted. A red box and arrow point to the 'Accept request' option with the text 'Click on actions and select accept request'.

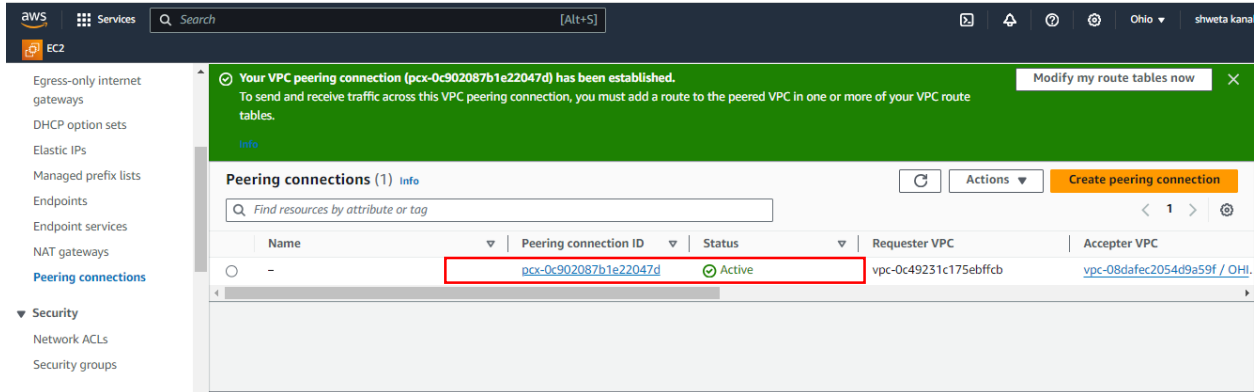


The screenshot shows the 'Accept VPC peering connection request' dialog box. The dialog contains the following information:

Requester VPC	Acceptor VPC	Requester CIDRs
vpc-0c49231c175ebffcb	vpc-08dafec2054d9a59f / OHIO-VPC	10.0.0.0/24
Acceptor CIDRs	Requester Region	Acceptor Region
-	Mumbai (ap-south-1)	Ohio (us-east-2)
Requester owner ID	Acceptor owner ID	
473869189128 (This account)	473869189128 (This account)	

At the bottom of the dialog, there are two buttons: 'Cancel' and 'Accept request'. A red box and arrow point to the 'Accept request' button with the text 'Click Accept'.

VPC peering has been established between Mumbai and ohio region

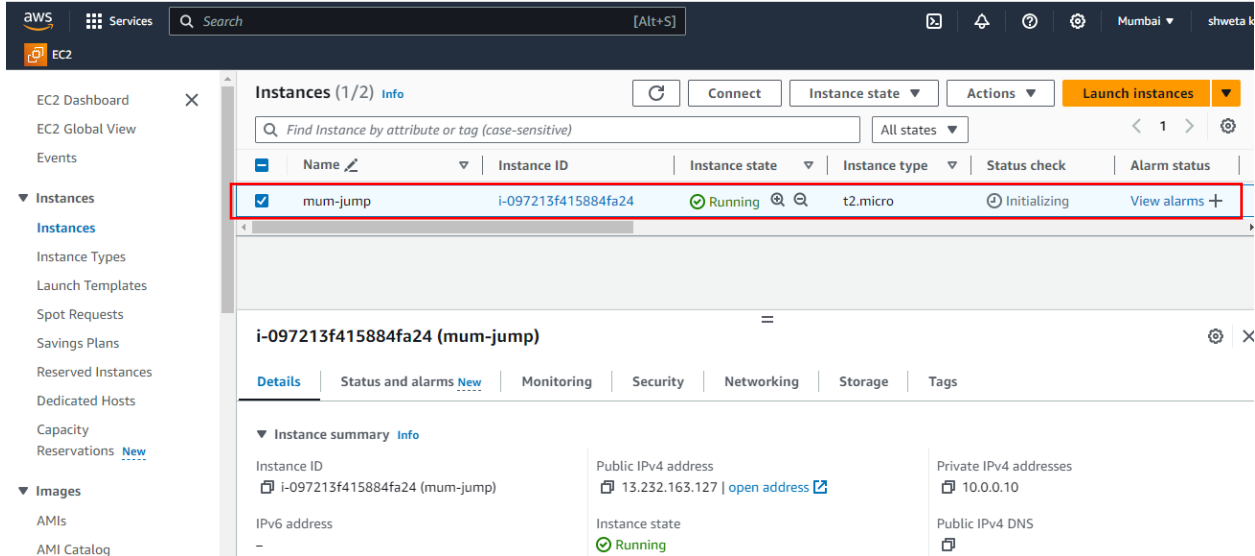


The screenshot shows the AWS Management Console interface for the Ohio region. A green banner at the top states: "Your VPC peering connection (pcx-0c902087b1e22047d) has been established. To send and receive traffic across this VPC peering connection, you must add a route to the peered VPC in one or more of your VPC route tables." Below this, the "Peering connections (1)" section is displayed. A table lists the peering connection:

Name	Peering connection ID	Status	Requester VPC	Accepter VPC
-	pcx-0c902087b1e22047d	Active	vpc-0c49231c175ebffcb	vpc-08dafec2054d9a59f / OHIO

Step 5 : Create a EC2 instance where you have created the VPC.

I have created a ec2 instance Mumbai region



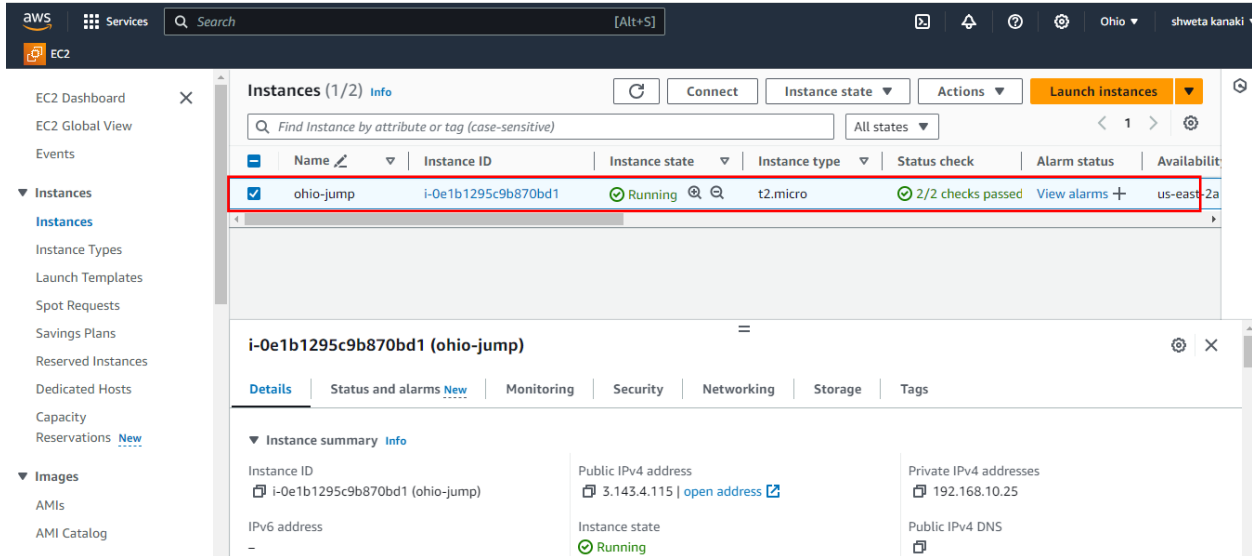
The screenshot shows the AWS Management Console interface for the Mumbai region. The "Instances (1/2)" section is displayed, showing a table of EC2 instances:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
mum-jump	i-097213f415884fa24	Running	t2.micro	Initializing	View alarms

Below the table, the details for the instance "i-097213f415884fa24 (mum-jump)" are shown:

- Instance ID: i-097213f415884fa24 (mum-jump)
- Public IPv4 address: 13.232.163.127 | [open address](#)
- Private IPv4 addresses: 10.0.0.10
- Instance state: Running
- Public IPv4 DNS: [View DNS](#)

And also in Ohio region



The screenshot shows the AWS Management Console interface for the Ohio region. The left sidebar contains navigation links for EC2 Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity, Reservations, Images, AMIs, and AMI Catalog. The main content area displays a table of EC2 instances. The instance 'ohio-jump' with ID 'i-0e1b1295c9b870bd1' is highlighted. Below the table, the details for this instance are shown, including its state as 'Running'.

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
ohio-jump	i-0e1b1295c9b870bd1	Running	t2.micro	2/2 checks passed	View alarms	us-east-2a

i-0e1b1295c9b870bd1 (ohio-jump)

Instance summary

Instance ID: i-0e1b1295c9b870bd1 (ohio-jump)

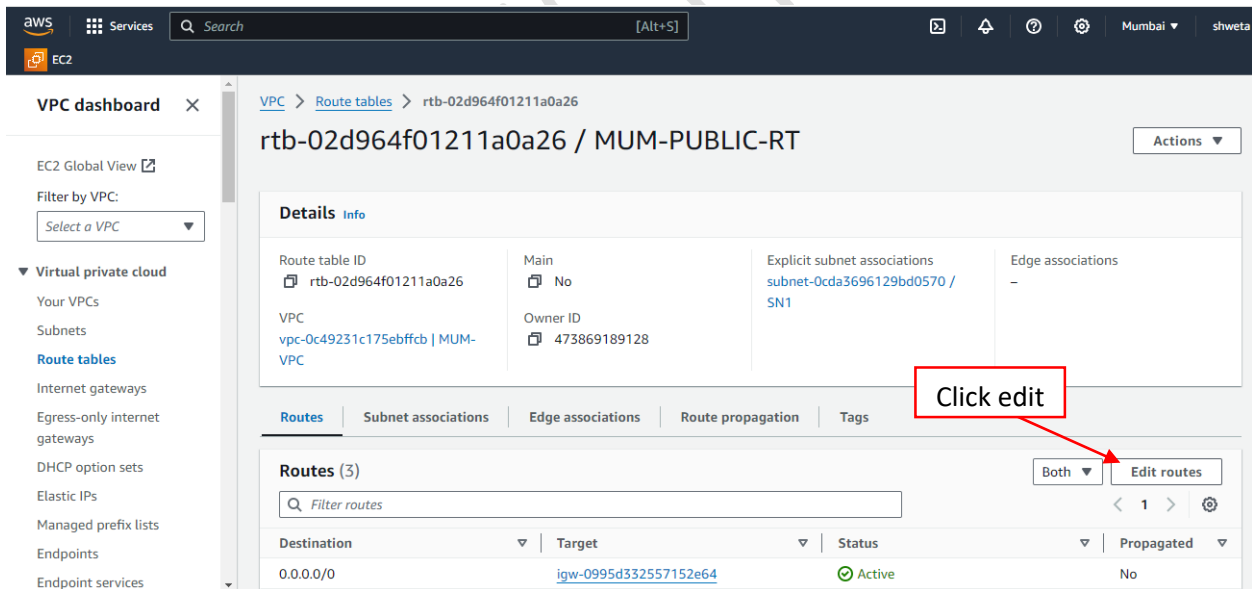
Public IPv4 address: 3.143.4.115 | [open address](#)

Private IPv4 addresses: 192.168.10.25

Instance state: Running

Public IPv4 DNS:

Step 6 : In Mumbai Region, Go to Route Table and edit the routes



The screenshot shows the AWS Management Console interface for the Mumbai region. The left sidebar contains navigation links for 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 the details for the Route Table 'rtb-02d964f01211a0a26'. The 'Routes' tab is selected, and the 'Edit routes' button is highlighted with a red box and the text 'Click edit'.

rtb-02d964f01211a0a26 / MUM-PUBLIC-RT

Details

Route table ID: rtb-02d964f01211a0a26

Main: No

Owner ID: 473869189128

Explicit subnet associations: subnet-0cda3696129bd0570 / SN1

Edge associations: -

Routes (3)

Both | [Edit routes](#)

Destination	Target	Status	Propagated
0.0.0.0/0	igw-0995d332557152e64	Active	No

aws Services Search [Alt+S] Mumbai shweta kanak

EC2

VPC > Route tables > rtb-02d964f01211a0a26 > Edit routes

Edit routes

Destination	Target	Status	Propagated	
10.0.0.0/24	local	Active	No	
0.0.0.0/0	Internet Gateway	Active	No	Remove
192.168.10.25/28	igw-0995d332557152e64		No	Remove

Add route

Paste the private ip address of the instance created in another region

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EC2

VPC > Route tables > rtb-02d964f01211a0a26 > Edit routes

Edit routes

Destination	Target	Status	Propagated	
10.0.0.0/24	local	Active	No	
0.0.0.0/0	Internet Gateway	Active	No	Remove
192.168.10.25/28	Peering Connection		No	Remove

Add route

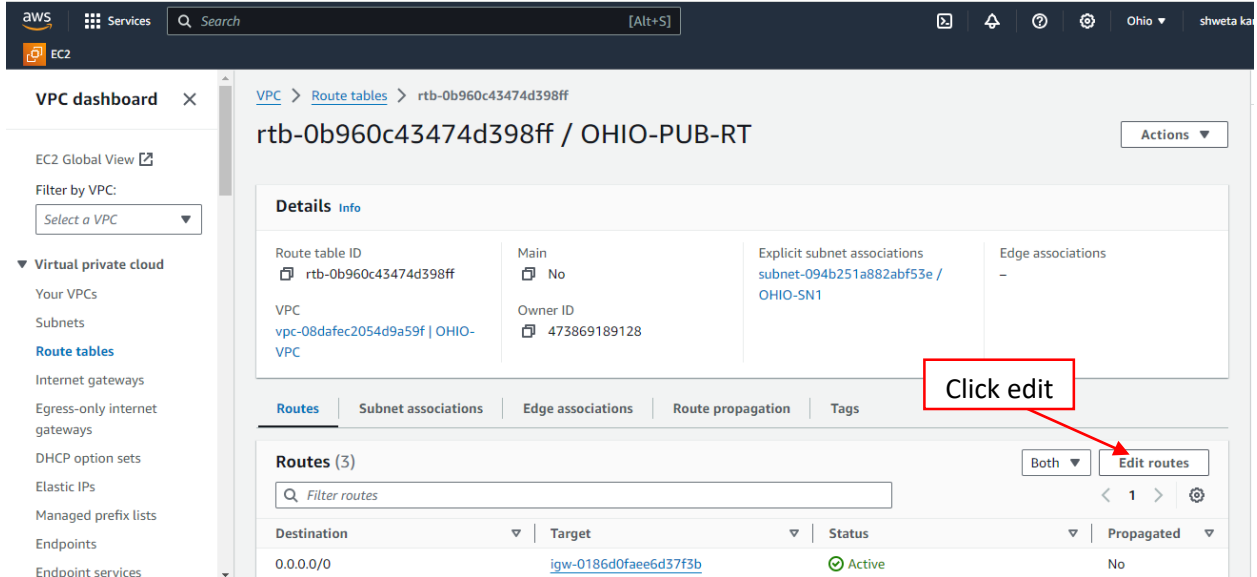
Select Peering connection

Select the required peering and click save

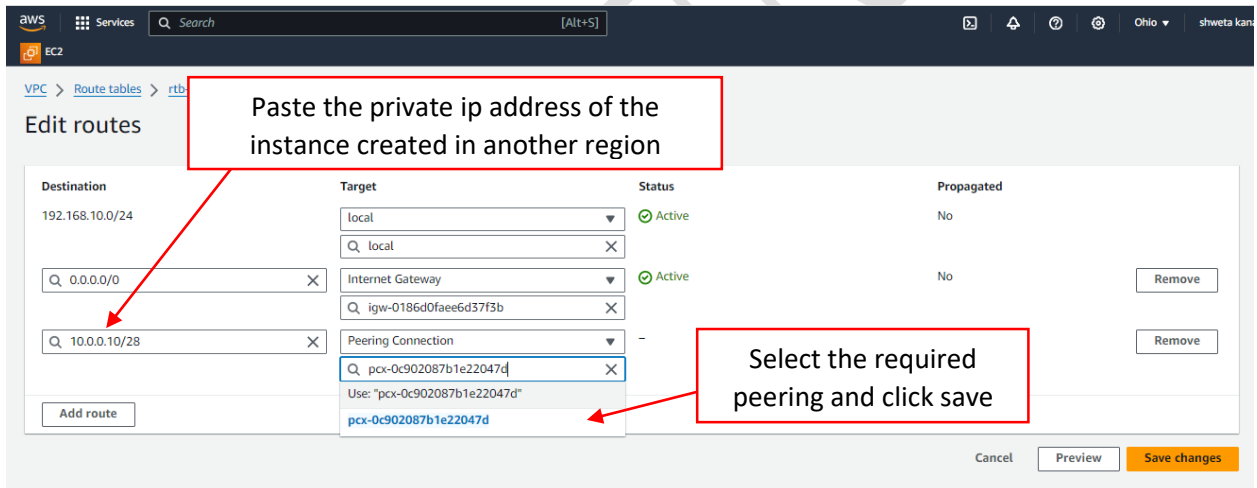
pcx-0c902087b1e22047d (mum-ohio-peering)

Cancel Preview Save changes

Similarly go to ohio region,



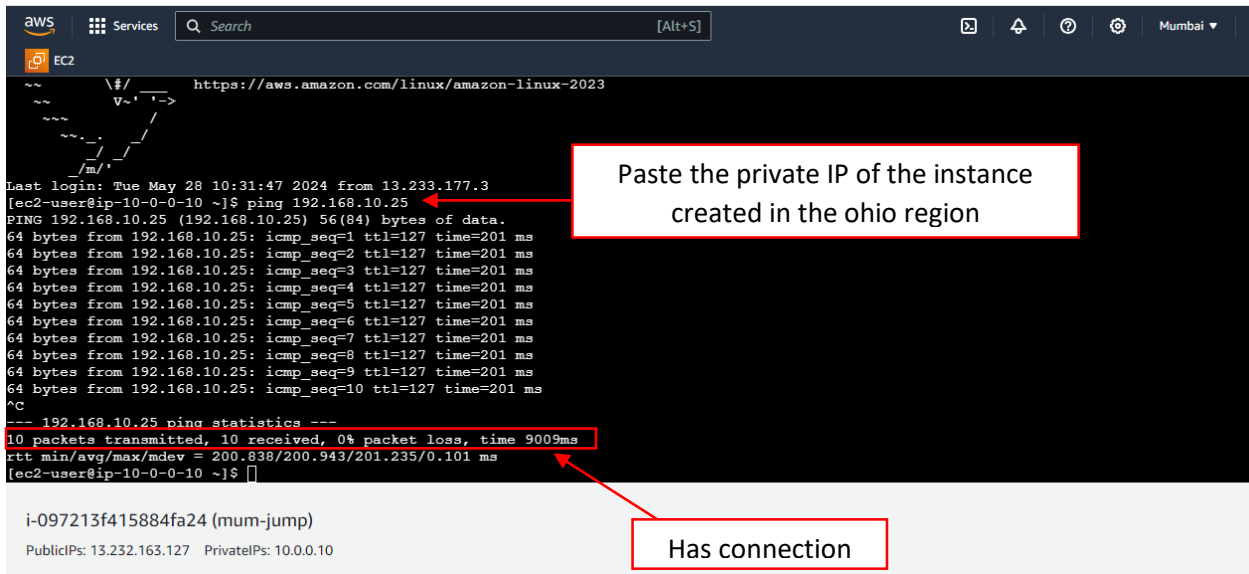
The screenshot shows the AWS Management Console interface for the Ohio region. The left sidebar contains the 'VPC dashboard' and a list of services. The main content area displays the details for the route table 'rtb-0b960c43474d398ff / OHIO-PUB-RT'. The 'Details' tab is active, showing information such as the Route table ID, VPC, Main flag, and Owner ID. A red box with the text 'Click edit' points to the 'Edit routes' button in the 'Routes' section.



The screenshot shows the 'Edit routes' page in the AWS Management Console. The 'Destination' field is highlighted with a red box, and a red arrow points to it with the text 'Paste the private ip address of the instance created in another region'. The 'Target' dropdown menu is also highlighted with a red box, and a red arrow points to it with the text 'Select the required peering and click save'. The 'Status' column shows 'Active' for the selected peering connection.

Step 7 : Connect the Mumbai region instance

Use the ping command to check there is a connection between two instances



aws Services Search [Alt+S] Mumbai

EC2

https://aws.amazon.com/linux/amazon-linux-2023

Last login: Tue May 28 10:31:47 2024 from 13.233.177.3

[ec2-user@ip-10-0-0-10 ~]\$ ping 192.168.10.25

PING 192.168.10.25 (192.168.10.25) 56(84) bytes of data:

64 bytes from 192.168.10.25: icmp_seq=1 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=2 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=3 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=4 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=5 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=6 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=7 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=8 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=9 ttl=127 time=201 ms

64 bytes from 192.168.10.25: icmp_seq=10 ttl=127 time=201 ms

^C

--- 192.168.10.25 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9009ms

rtt min/avg/max/mdev = 200.838/200.943/201.235/0.101 ms

[ec2-user@ip-10-0-0-10 ~]\$

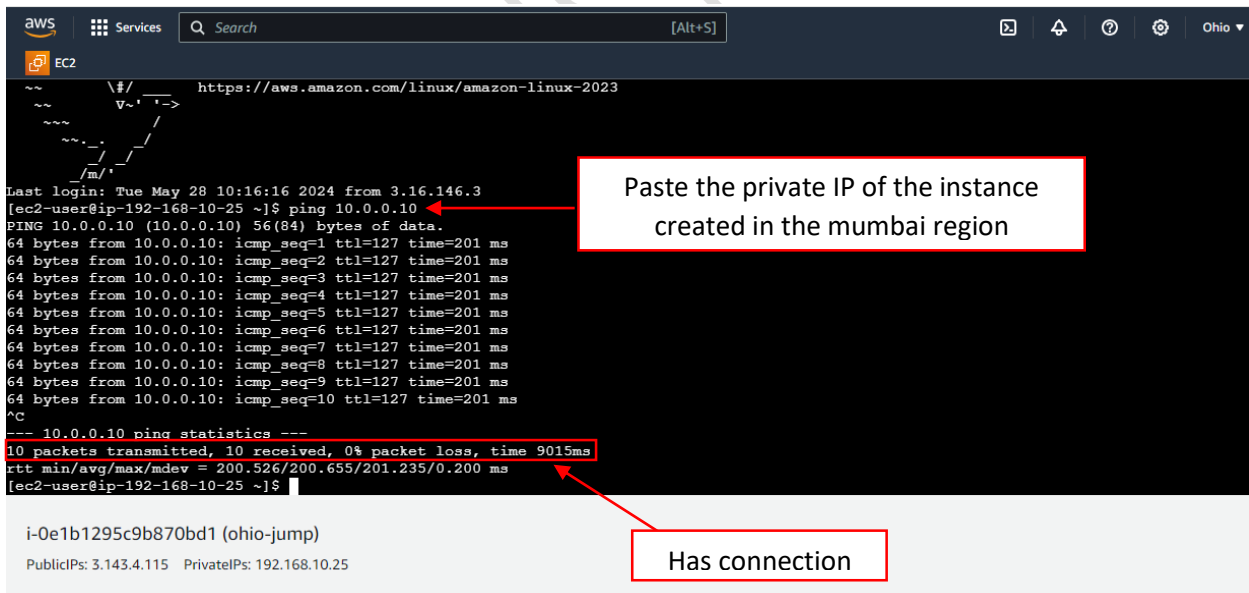
i-097213f415884fa24 (mum-jump)

PublicIPs: 13.232.163.127 PrivateIPs: 10.0.0.10

Paste the private IP of the instance created in the ohio region

Has connection

Now connect the Ohio region instance



aws Services Search [Alt+S] Ohio

EC2

https://aws.amazon.com/linux/amazon-linux-2023

Last login: Tue May 28 10:16:16 2024 from 3.16.146.3

[ec2-user@ip-192-168-10-25 ~]\$ ping 10.0.0.10

PING 10.0.0.10 (10.0.0.10) 56(84) bytes of data:

64 bytes from 10.0.0.10: icmp_seq=1 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=2 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=3 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=4 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=5 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=6 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=7 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=8 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=9 ttl=127 time=201 ms

64 bytes from 10.0.0.10: icmp_seq=10 ttl=127 time=201 ms

^C

--- 10.0.0.10 ping statistics ---

10 packets transmitted, 10 received, 0% packet loss, time 9015ms

rtt min/avg/max/mdev = 200.526/200.655/201.235/0.200 ms

[ec2-user@ip-192-168-10-25 ~]\$

i-0e1b1295c9b870bd1 (ohio-jump)

PublicIPs: 3.143.4.115 PrivateIPs: 192.168.10.25

Paste the private IP of the instance created in the mumbai region

Has connection