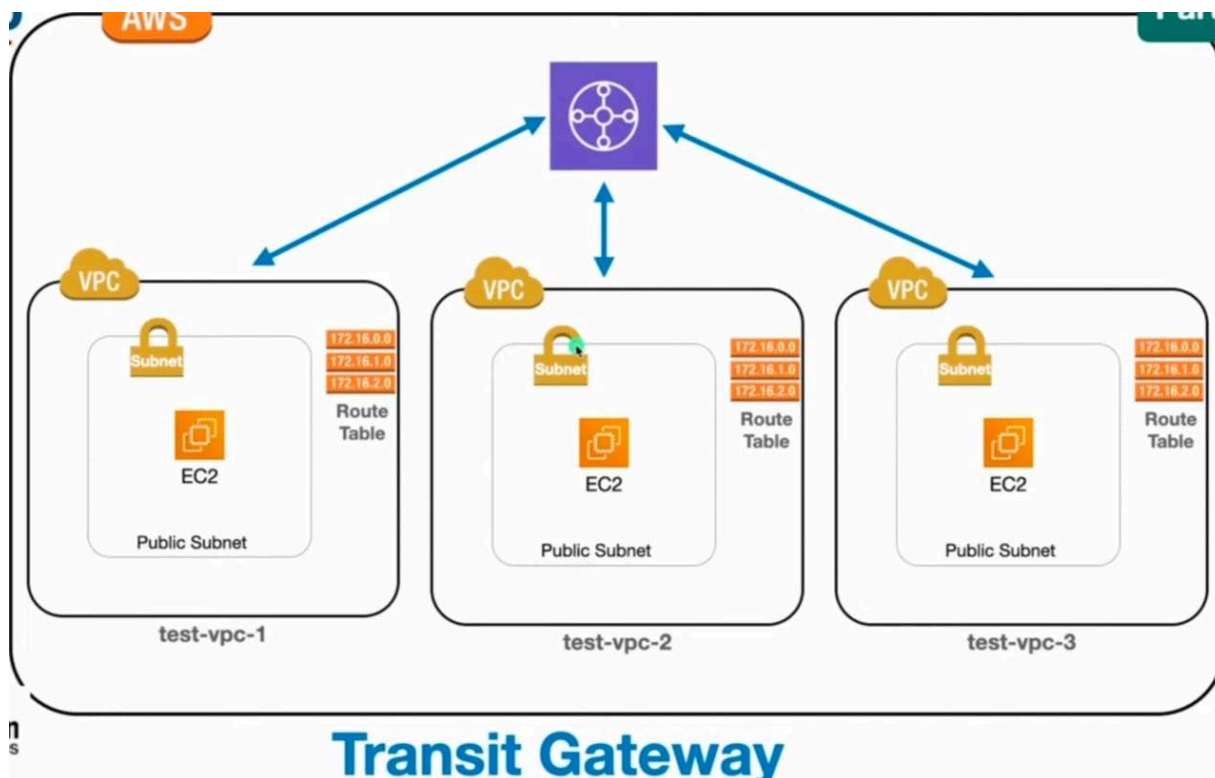


CREATING 3 VPC'S AND CONNECTING TO TRANSIT GATEWAY



Step 1 : First we have to create a vpc (my-vpc-1A) .

Virtual private cloud

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 (2) Info

Search

	Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	-	vpc-07aebdae1b1ba559b	Available	172.31.0.0/16	-
<input type="checkbox"/>	my-vpc-1A	vpc-0dedcba1b040b756b	Available	12.0.0.0/16	-

Select a VPC above

Step 2 : Now create an internet gateway and attach to vpc (my-vpc-1A) .

The screenshot shows the AWS VPC console's 'Internet gateways' page. The left sidebar lists navigation options: VPC dashboard, EC2 Global View, Filter by VPC (with a dropdown), Virtual private cloud, Your VPCs, Subnets, Route tables, Internet gateways (highlighted), Egress-only internet gateways, DHCP option sets, Elastic IPs, Managed prefix lists, Endpoints, Endpoint services, NAT gateways, and Peering connections. The main panel is titled 'Internet gateways (2)' and includes a search bar, a refresh button, an 'Actions' dropdown, and a 'Create internet gateway' button. A table lists the existing internet gateways:

	Name	Internet gateway ID	State	VPC ID
<input type="checkbox"/>	-	igw-0cd4543c796aceb94	Attached	vpc-07aebdae1b1ba559b
<input type="checkbox"/>	my-internet gateway-1	igw-095433a2242d92377	Attached	vpc-0dedcba1b040b756b my-vpc-1

Below the table, there is a prompt: 'Select an internet gateway above'.

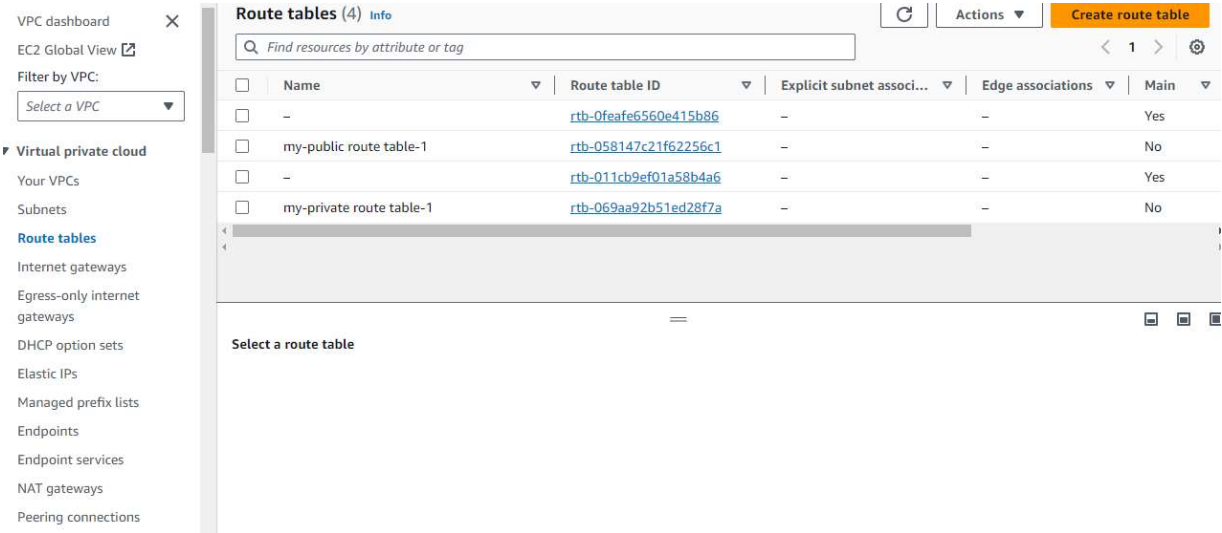
Step 3 : Now create two subnets (my-public subnet-1,my-private subnet-1) .

The screenshot shows the AWS VPC console's 'Subnets' page. The left sidebar is identical to the previous screenshot, with 'Subnets' highlighted under the 'Virtual private cloud' section. The main panel is titled 'Subnets (5)' and includes a search bar, a refresh button, an 'Actions' dropdown, and a 'Create subnet' button. A table lists the existing subnets:

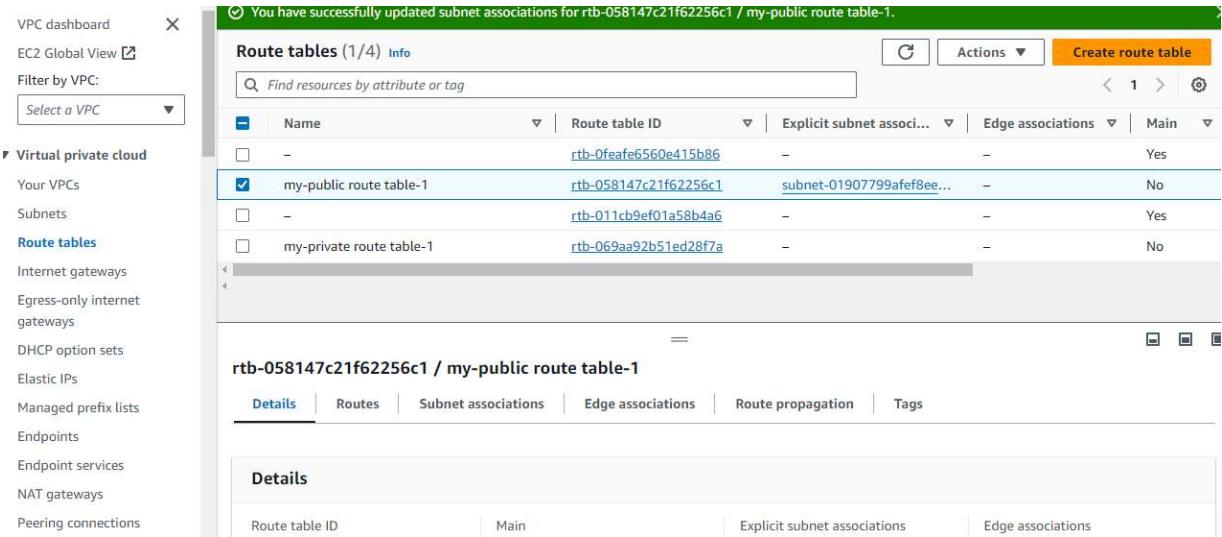
	Name	Subnet ID	State	VPC	IPv4
<input type="checkbox"/>	-	subnet-05dd01752b4d88bf9	Available	vpc-07aebdae1b1ba559b	172.3
<input type="checkbox"/>	-	subnet-00367671321d456fb	Available	vpc-07aebdae1b1ba559b	172.3
<input type="checkbox"/>	-	subnet-04e26e4999d679d98	Available	vpc-07aebdae1b1ba559b	172.3
<input type="checkbox"/>	my-public subnet-1	subnet-01907799afef8ee46	Available	vpc-0dedcba1b040b756b my-...	12.0.1
<input type="checkbox"/>	my-public subnet-1	subnet-0aba255252ca5ae71	Available	vpc-0dedcba1b040b756b my-...	12.0.2

Below the table, there is a prompt: 'Select a subnet'.

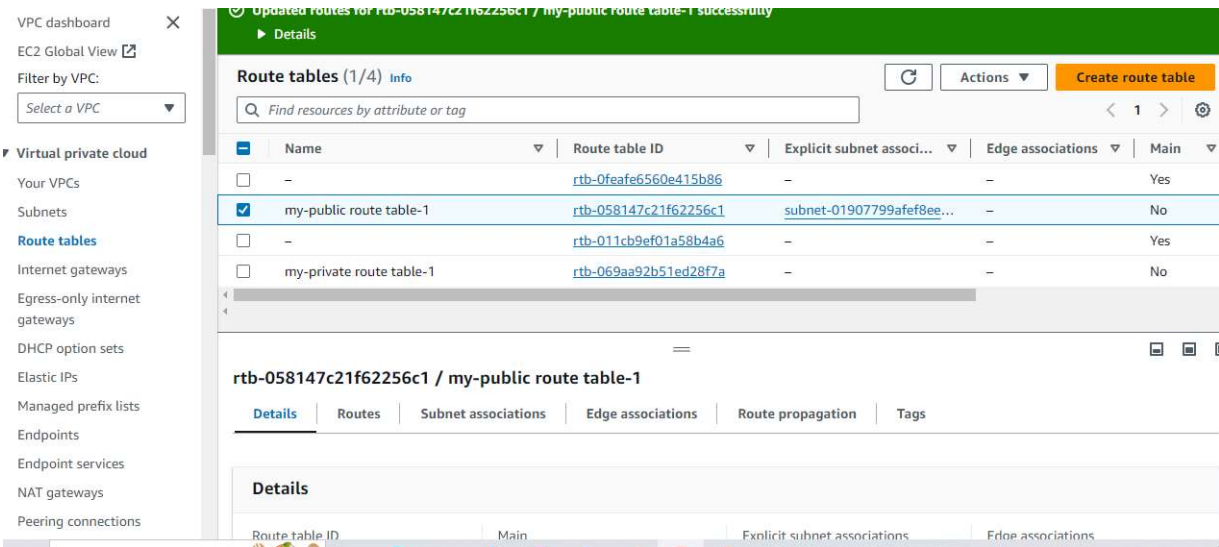
Step 4 : Now create two route tables (my-public route table-1,my-private route table-1) .



Step 5 : Now connect router tables to subnets for configure routing ,
– (my-public subnet-1 to my-public route table-1) and click on save association .

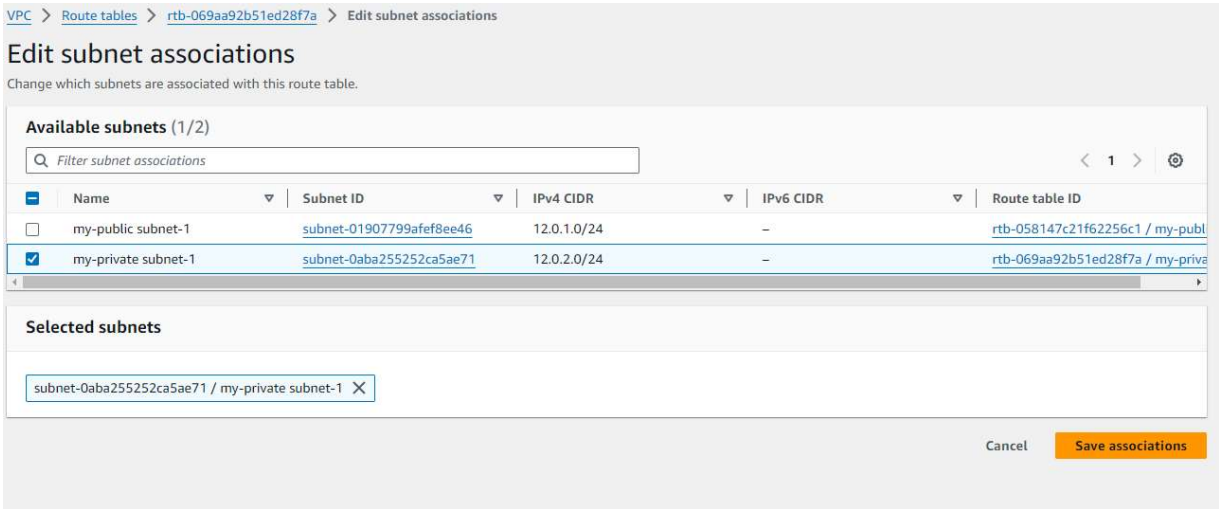


Step 6 : Now attach the public route table to the internet gateway for accessing the internet connection for the public subnet .

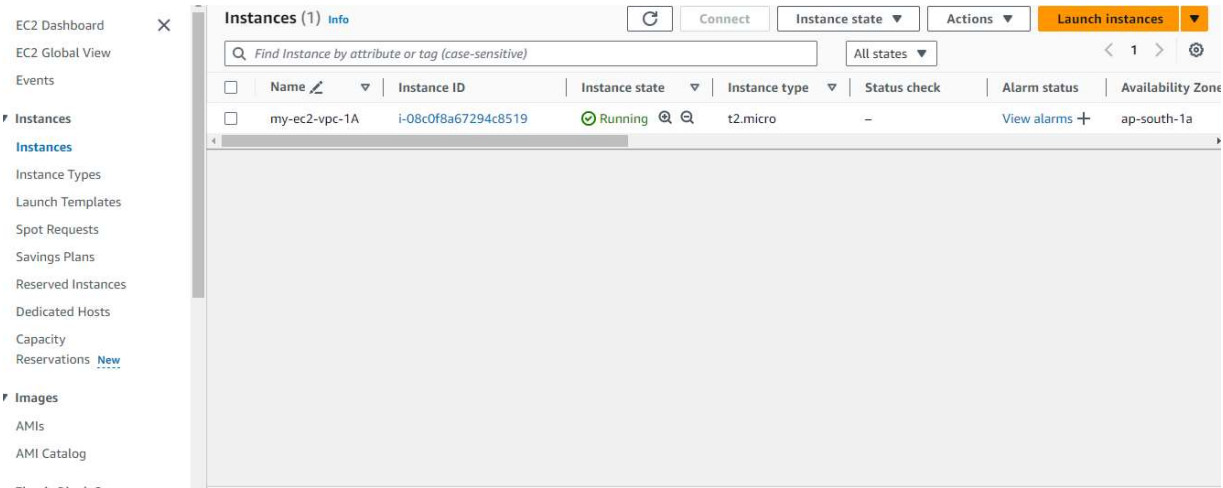


Step 7 : Now connect router tables to subnets for configure routing ,
– (my-private subnet-1 to my-private route table-1) and click on save association .

NOTE : NO INTERNET CONNECTION FOR PRIVATE SUBNET .

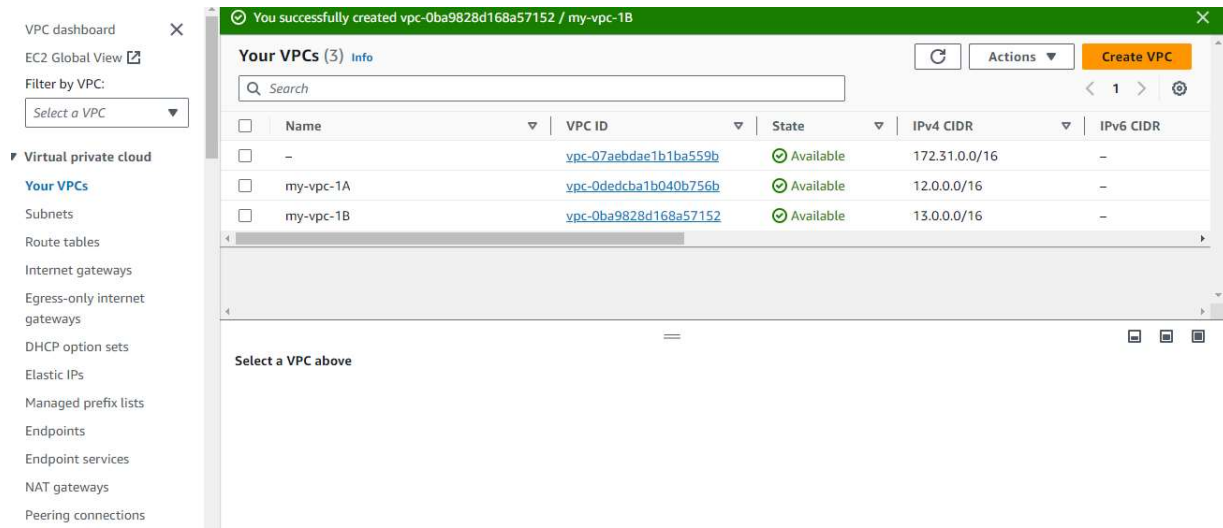


Step 8 : Now create an ec2 instance and attach to vpc (my-vpc-1A) .



NOW CREATE ANOTHER TWO VPC'S AND ATTACH TO INSTANCES .

- Step 1 : First we have to create a vpc (my-vpc-1B) .



- Step 2 : Now create an internet gateway and attach to vpc (my-vpc-1B) .

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

Internet gateways (1/3)

Search

Name	Internet gateway ID	State	VPC ID
<input type="checkbox"/> my-internet gateway-o2	igw-04140dd85471b771f	Attached	vpc-0ba9828d168a57152 my-v...
<input checked="" type="checkbox"/> my-internet gateway-01	igw-095433a2242d92377	Attached	vpc-0dedcba1b040b756b my-v...
<input type="checkbox"/> -	igw-0cd4543c796aceb94	Attached	vpc-07aebdae1b1ba559b

igw-095433a2242d92377 / my-internet gateway-1

Details Tags

Details

Internet gateway ID	State	VPC ID	Owner
igw-095433a2242d92377	Attached	vpc-0dedcba1b040b756b my-vpc-1A	211125473120

- Step 3 : Now create two subnets (my-public subnet-2,my-private subnet-2) .

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

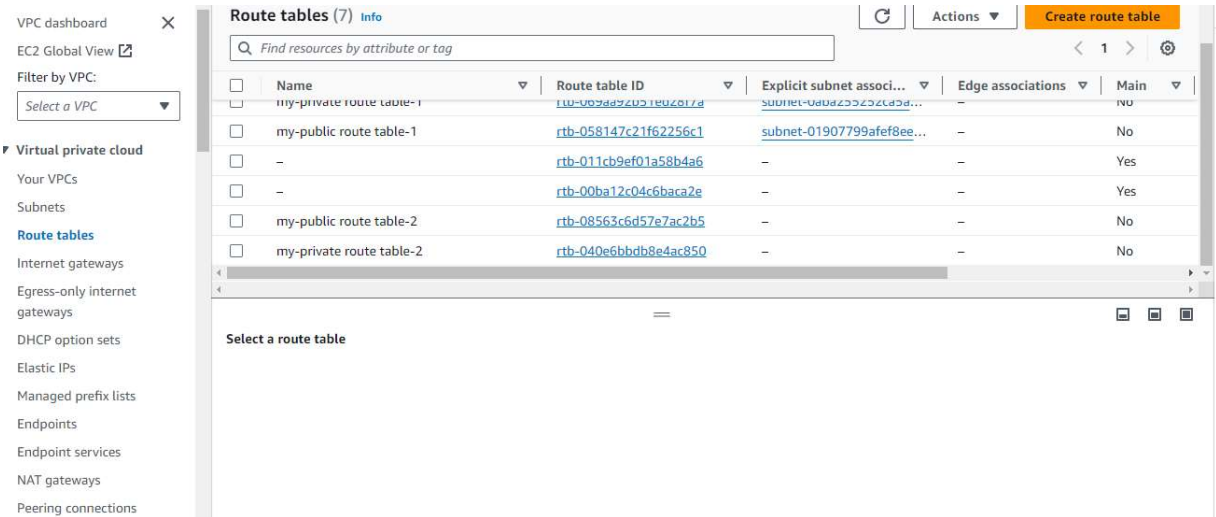
Subnets (7)

Find resources by attribute or tag

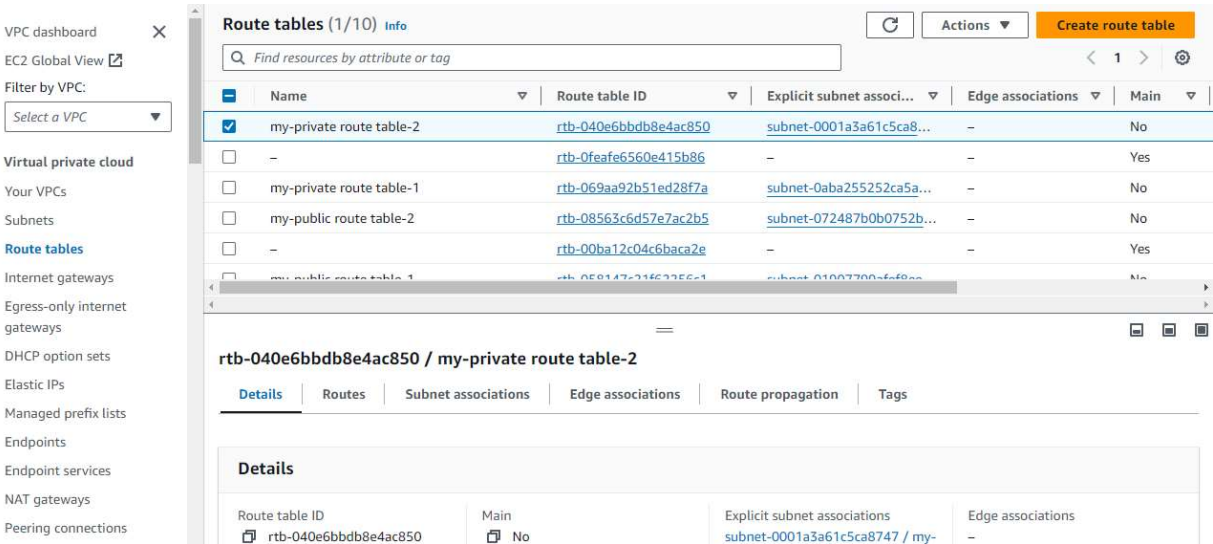
Name	Subnet ID	State	VPC	IPv4 C...
<input type="checkbox"/> my-private subnet-2	subnet-0001a3a61c5ca8747	Available	vpc-0ba9828d168a57152 my-...	13.0.2
<input type="checkbox"/> my-private subnet-1	subnet-0aba255252ca5ae71	Available	vpc-0dedcba1b040b756b my-...	12.0.2
<input type="checkbox"/> my-public subnet-1	subnet-01907799afef8ee46	Available	vpc-0dedcba1b040b756b my-...	12.0.1
<input type="checkbox"/> -	subnet-04e26e4999d679d98	Available	vpc-07aebdae1b1ba559b	172.3
<input type="checkbox"/> my-public subnet-2	subnet-072487b0b0752b54e	Available	vpc-0ba9828d168a57152 my-...	13.0.1

Select a subnet

- Step 4 : Now create two route tables (my-public route table-2,my-private route table-2) .



- Step 5 : Now connect router tables to subnets for configure routing ,
– (my-public subnet-2 to my-public route table-2) and click on save association .



- Step 6 : Now attach the public route table to the internet gateway for accessing the internet connection for the public subnet .

The screenshot shows the AWS VPC console interface. On the left is a navigation menu 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', 'Endpoint services', 'NAT gateways', and 'Peering connections'. The main panel displays the details for the route table 'rtb-08563c6d57e7ac2b5 / my-public route table-2'. A green banner at the top indicates 'Updated routes for rtb-08563c6d57e7ac2b5 / my-public route table-2 successfully'. The details section shows the Route table ID, Main status (No), VPC (vpc-0ba9828d168a57152 | my-vpc-1B), Owner ID, Explicit subnet associations (subnet-072487b0b0752b54e / my-public subnet-2), and Edge associations. Below the details are tabs for 'Routes', 'Subnet associations', 'Edge associations', 'Route propagation', and 'Tags'. The 'Routes' tab is active, showing a table with 2 routes. The table has columns for Destination, Target, Status, and Propagated. There are also buttons for 'Both', 'Edit routes', and pagination controls.

- Step 7 : Now connect router tables to subnets for configure routing ,
– (my-private subnet-2 to my-private route table-2) and click on save association .

NOTE : NO INTERNET CONNECTION FOR PRIVATE SUBNET

The screenshot shows the AWS VPC console interface. On the left is a navigation menu 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', 'Endpoint services', 'NAT gateways', and 'Peering connections'. The main panel displays a list of route tables under the heading 'Route tables (1/10)'. The list has columns for Name, Route table ID, Explicit subnet associations, Edge associations, and Main. The first row, 'my-private route table-2', is selected. Below the list, the details for 'rtb-040e6bbdb8e4ac850 / my-private route table-2' are shown. The details section has tabs for 'Details', 'Routes', 'Subnet associations', 'Edge associations', 'Route propagation', and 'Tags'. The 'Details' tab is active, showing the Route table ID, Main status (No), Explicit subnet associations (subnet-0001a3a61c5ca8...), and Edge associations.

- Step 8 : Now create an ec2 instance and attach to vpc (my-vpc-1B) .

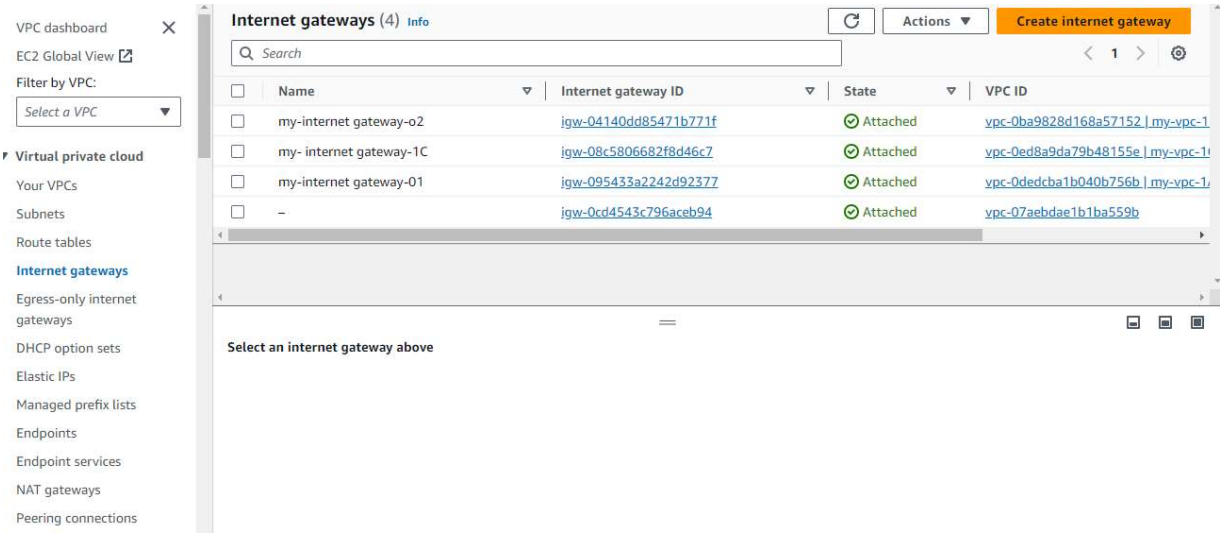
The screenshot displays the AWS Management Console's EC2 Instances page. The left sidebar contains navigation links for various EC2 services. The main panel shows a table of instances. The table has columns for Name, Instance ID, Instance state, Instance type, Status check, Alarm status, and Availability Zone. Two instances are visible: 'my-vpc-ec2-1B' with Instance ID 'i-06f79809c45857b11' and 'my-ec2-vpc-1A' with Instance ID 'i-08c0f8a67294c8519'. Both are in a 'Running' state. The status check for 'my-ec2-vpc-1A' shows '2/2 checks passed'.

NOW CREATE ANOTHER VPC AND ATTACH TO THE INSTANCE.

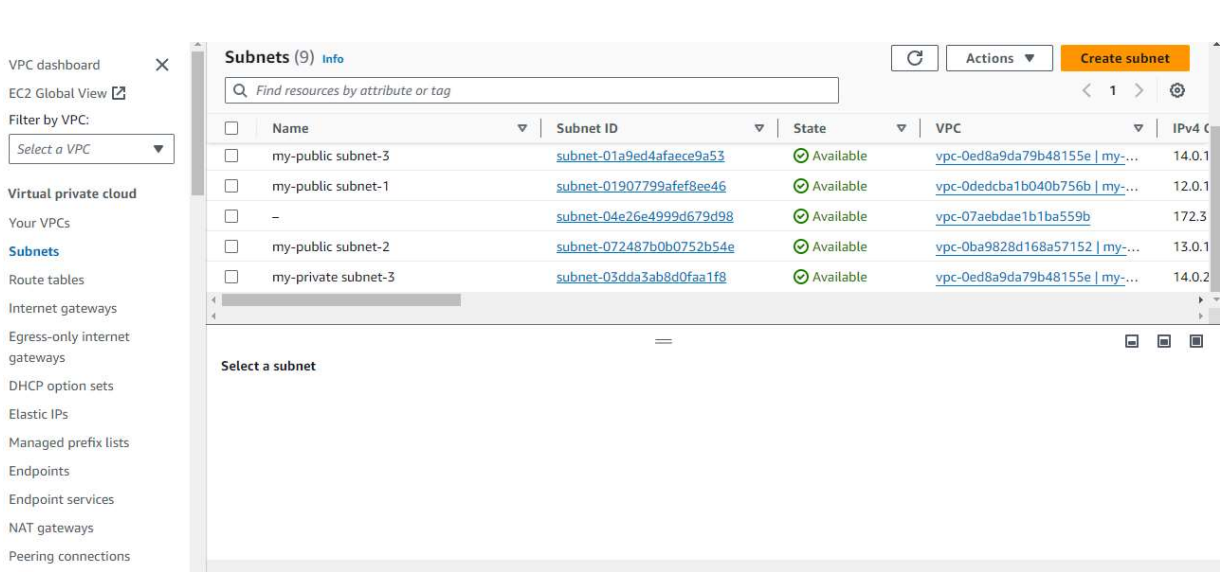
>> Step 1 : First we have to create a vpc (my-vpc-1A) .

The screenshot displays the AWS Management Console's VPC dashboard. The left sidebar contains navigation links for various VPC services. The main panel shows a table of VPCs. The table has columns for Name, VPC ID, State, IPv4 CIDR, and IPv6 CIDR. Four VPCs are visible: 'my-vpc-1A' with VPC ID 'vpc-0dedc3a1b040b756b', 'my-vpc-1B' with VPC ID 'vpc-0ba9828d168a57152', and 'my-vpc-1C' with VPC ID 'vpc-0ed8a9da79b48155e'. All are in an 'Available' state. The first row shows a VPC with ID 'vpc-07aebdae1b1ba559b' and CIDR '172.31.0.0/16'.

>> Step 2 : Now create an internet gateway and attach to vpc (my-vpc-1B) .



>> Step 3 : Now create two subnets (my-public subnet-3,my-private subnet-3) .



>> Step 4 : Now create two route tables (my-public route table-3,my-private route table-3) .

Route tables (1/10) Info

Find resources by attribute or tag

Name	Route table ID	Explicit subnet associ...	Edge associations	Main
my-public route table-1	rtb-058147c21f62256c1	subnet-01907799afef8ee...	-	No
-	rtb-011cb9ef01a58b4a6	-	-	Yes
-	rtb-0d3d02ab5309d778a	-	-	Yes
my-public route table-3	rtb-03919c621ca3734bd	-	-	No
my-private route table-3	rtb-04e0a8b22e57c91cf	-	-	No

rtb-04e0a8b22e57c91cf / my-private route table-2

Details Routes Subnet associations Edge associations Route propagation Tags

Details

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-04e0a8b22e57c91cf	No	subnet-0001a3a61c5ca8747 / my-	-

>> Step 5 : Now connect router tables to subnets for configure routing ,
 – (my-public subnet-3 to my-public route table-3) and click on save association .

Route tables (1/10) Info

Find resources by attribute or tag

Name	Route table ID	Explicit subnet associ...	Edge associations	Main
my-private route table-2	rtb-040e6bbdb8e4ac850	subnet-0001a3a61c5ca8...	-	No
-	rtb-0feaf6560e415b86	-	-	Yes
my-private route table-1	rtb-069aa92b51ed28f7a	subnet-0aba255252ca5a...	-	No
my-public route table-2	rtb-08563c6d57e7ac2b5	subnet-072487b0b0752b...	-	No
-	rtb-00ba12c04c6baca2e	-	-	Yes

rtb-03919c621ca3734bd / my-public route table-3

Details Routes Subnet associations Edge associations Route propagation Tags

Details

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-03919c621ca3734bd	No	subnet-072487b0b0752b...	-

>> Step 6 : Now attach the public route table to the internet gateway for accessing the internet connection for the public subnet .

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

Updated routes for rtb-03919c621ca3734bd / my-public route table-3 successfully

Details

VPC > Route tables > rtb-03919c621ca3734bd

rtb-03919c621ca3734bd / my-public route table-3

Actions

Details

Info

Route table ID

rtb-03919c621ca3734bd

Main

No

Explicit subnet associations

subnet-01a9ed4faece9a53 / my-public subnet-3

Edge associations

-

VPC

vpc-0ed8a9da79b48155e | my-vpc-1C

Owner ID

211125473120

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (2)

Both

Edit routes

Filter routes

1

Destination

Target

Status

Propagated

>> Step 7 : Now connect router tables to subnets for configure routing ,
– (my-private subnet-3 to my-private route table-3) and click on save association .

NOTE : NO INTERNET CONNECTION FOR PRIVATE SUBNET .

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

You have successfully updated subnet associations for rtb-04e0a8b22e57c91cf / my-private route table-3.

Route tables (1/10)

Find resources by attribute or tag

Create route table

1

	Name	Route table ID	Explicit subnet associ...	Edge associations	Main
<input type="checkbox"/>	my-private route table-2	rtb-040e6bbdb8e4ac850	subnet-0001a3a61c5ca8...	-	No
<input type="checkbox"/>	-	rtb-0feafe6560e415b86	-	-	Yes
<input type="checkbox"/>	my-private route table-1	rtb-069aa92b51ed28f7a	subnet-0aba255252ca5a...	-	No
<input type="checkbox"/>	my-public route table-2	rtb-08563c6d57e7ac2b5	subnet-072487b0b0752b...	-	No
<input type="checkbox"/>	-	rtb-00ba12c04c6baca2e	-	-	Yes

rtb-04e0a8b22e57c91cf / my-private route table-3

Details

Routes

Subnet associations

Edge associations

Route propagation

Tags

Details

Route table ID

Main

Explicit subnet associations

Edge associations

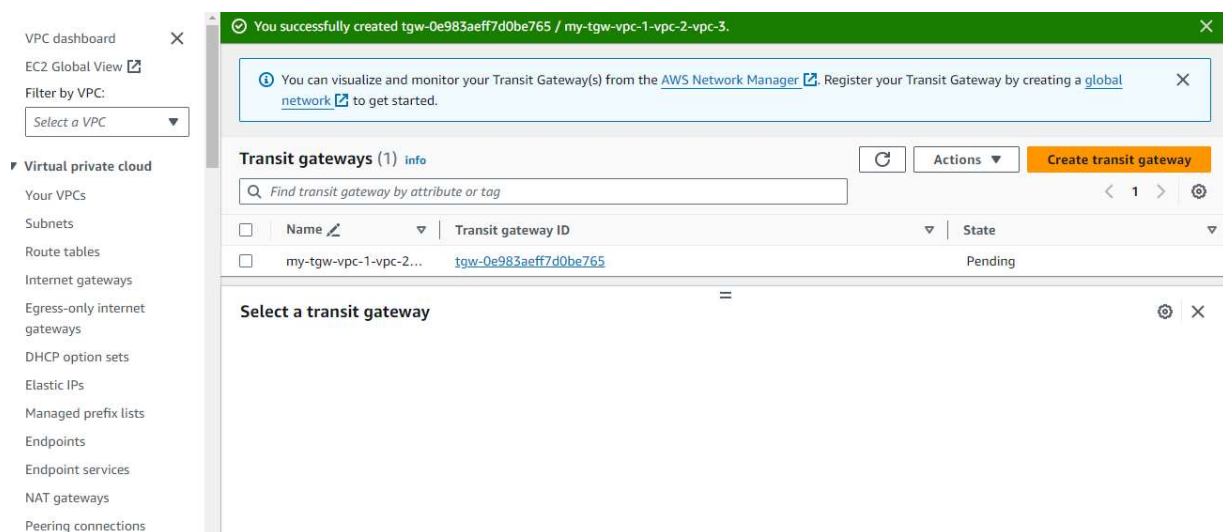
>> Step 8 : Now create an ec2 instance and attach to vpc (my-vpc-1C) .

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
my-ec2-vpc-1C	i-0b0dbc5d61d00f3fa	Running	t3.small	Initializing	View alarms +	ap-south-1c
my-vpc-ec2-1B	i-06f79809c45857b11	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1b
my-ec2-vpc-1A	i-08c0f8a67294c8519	Running	t2.micro	2/2 checks passed	View alarms +	ap-south-1a

After creating vpc's and connecting them to instances, connect them to the transit gateway .

TRANSIT GATEWAY

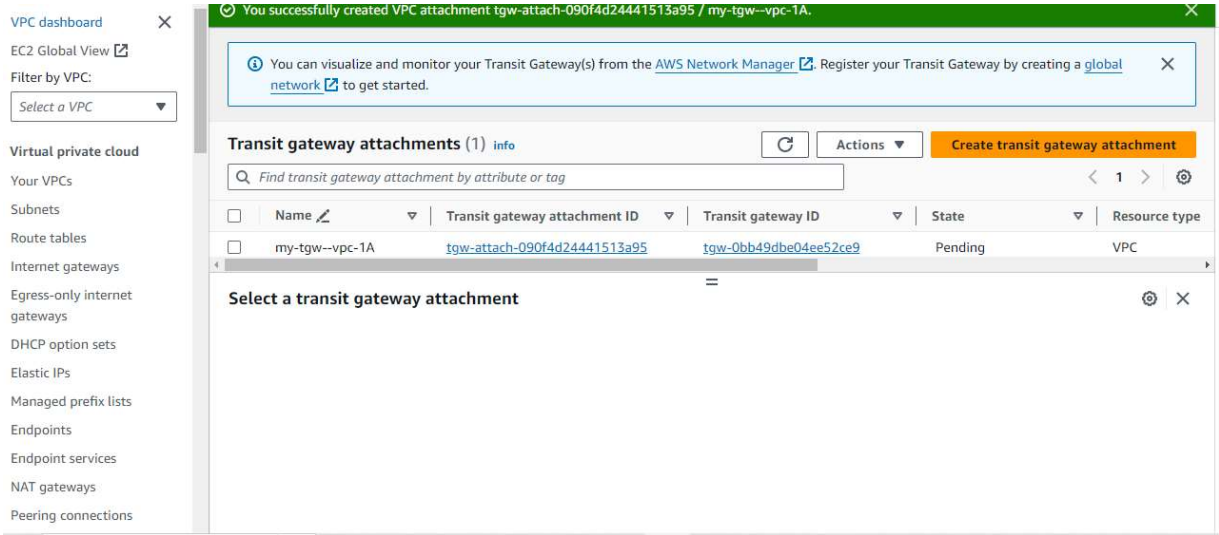
Step 1 : Create a transit gateway .



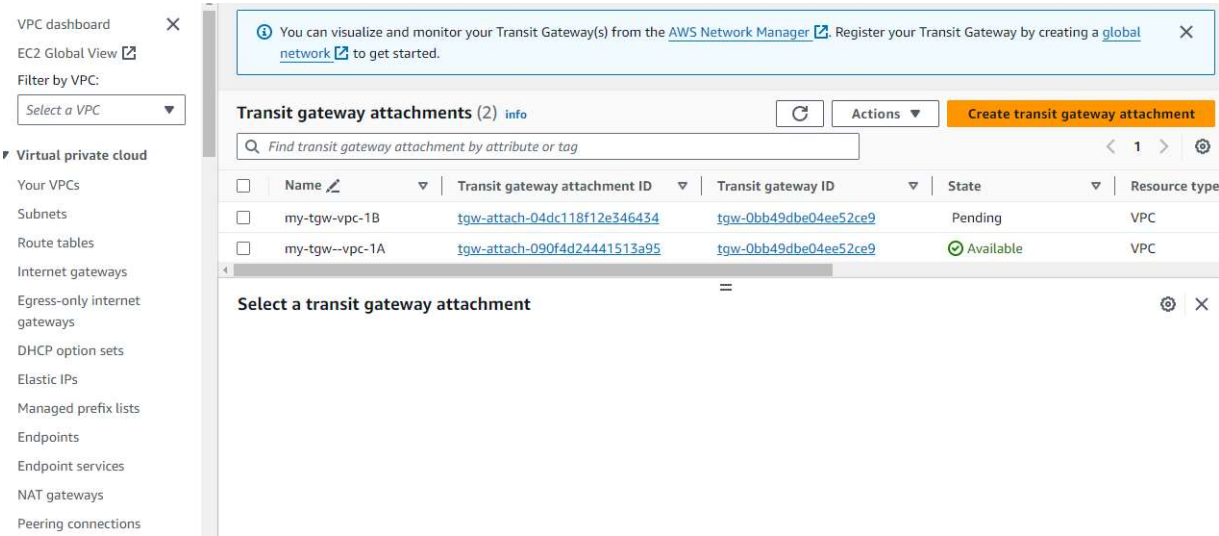
After creating the transit gateway attach all created vpc's to the transit gateway .

Step 2 : Connecting attachments.

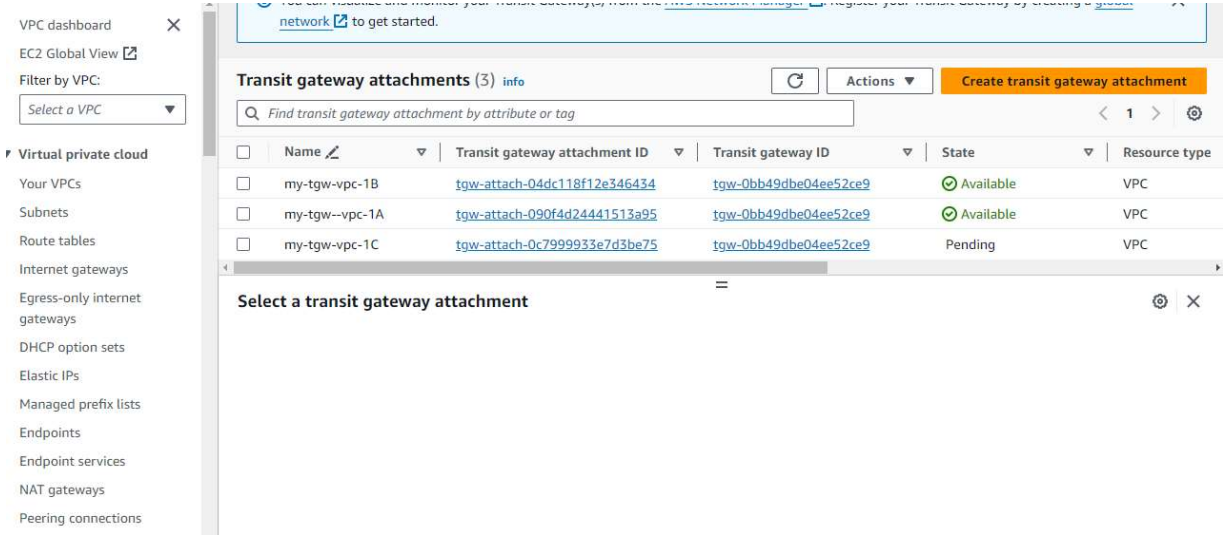
---- Creating transit gateway attachment for vpc (my-vpc-1A)



---- Creating transit gateway attachment for vpc (my-vpc-1B)



— Creating transit gateway attachment for vpc (my-vpc-1C)



UPDATE ROUTE TABLES

By updating , our subnets will know how to route the request to the transit gateway through this we can also communicate with the other vpc's .

Step 1 : Now we are fixing the connection between vpc's (my-vpc-1B and my-vpc-1C) with the first vps (my-vpc-1A).

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

Updated routes for rtb-058147c21f62256c1 / my-public route table-1 successfully

Details

Details

Info

Route table ID

rtb-058147c21f62256c1

Main

No

Explicit subnet associations

subnet-01907799afef8ee46 / my-public subnet-1

Edge associations

-

VPC

vpc-0dedcba1b040b756b | my-vpc-1A

Owner ID

211125473120

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (4)

Both

Edit routes

Filter routes

Destination	Target	Status	Propagated
0.0.0.0/0	igw-095433a2242d92377	Active	No
12.0.0.0/16	local	Active	No
13.0.0.0/16	tgw-0bb49dbe04ee52ce9	Active	No
14.0.0.0/16	tgw-0bb49dbe04ee52ce9	Active	No

Step 2 : Now we are fixing the connection between vpc's (my-vpc-1A and my-vpc-1C) with the second vps (my-vpc-1B).

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

Updated routes for rtb-08563c6d57e7ac2b5 / my-public route table-2 successfully

Details

Details

Info

Route table ID

rtb-08563c6d57e7ac2b5

Main

No

Explicit subnet associations

subnet-072487b0b0752b54e / my-public subnet-2

Edge associations

-

VPC

vpc-0ba9828d168a57152 | my-vpc-1B

Owner ID

211125473120

Routes

Subnet associations

Edge associations

Route propagation

Tags

Routes (4)

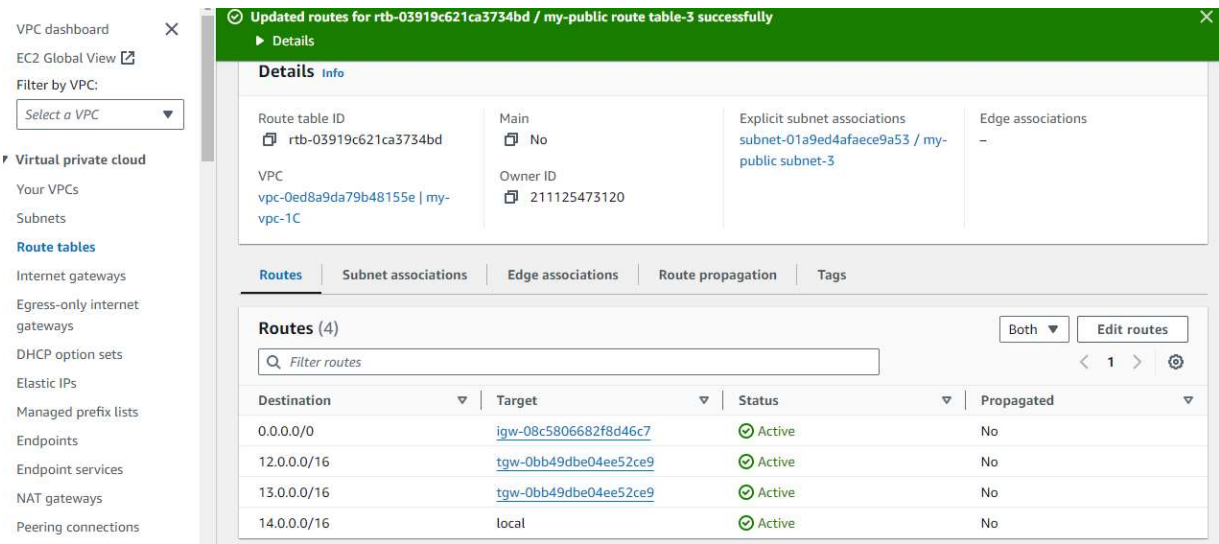
Both

Edit routes

Filter routes

Destination	Target	Status	Propagated
0.0.0.0/0	igw-04140dd85471b771f	Active	No
12.0.0.0/16	tgw-0bb49dbe04ee52ce9	Active	No
13.0.0.0/16	local	Active	No
14.0.0.0/16	tgw-0bb49dbe04ee52ce9	Active	No

Step 3 : Now we are fixing the connection between vpc's (my-vpc-1A and my-vpc-1B) with the third vps (my-vpc-1C).



- We have created all vpc's ,transit gateway and attached to ec2 instances & transit gateway.