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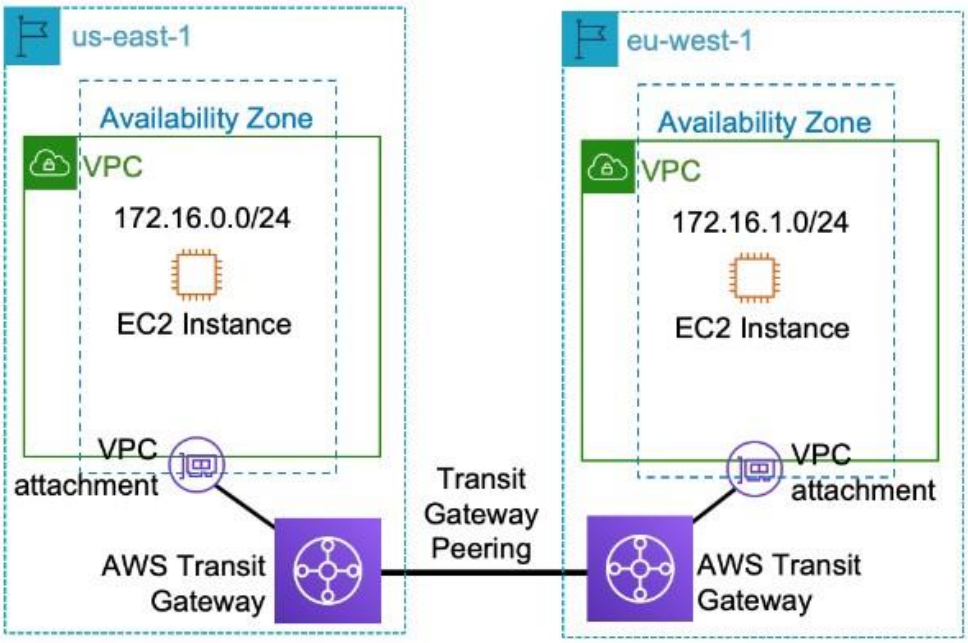
BATCH:119

Transit gateway in multiple regions

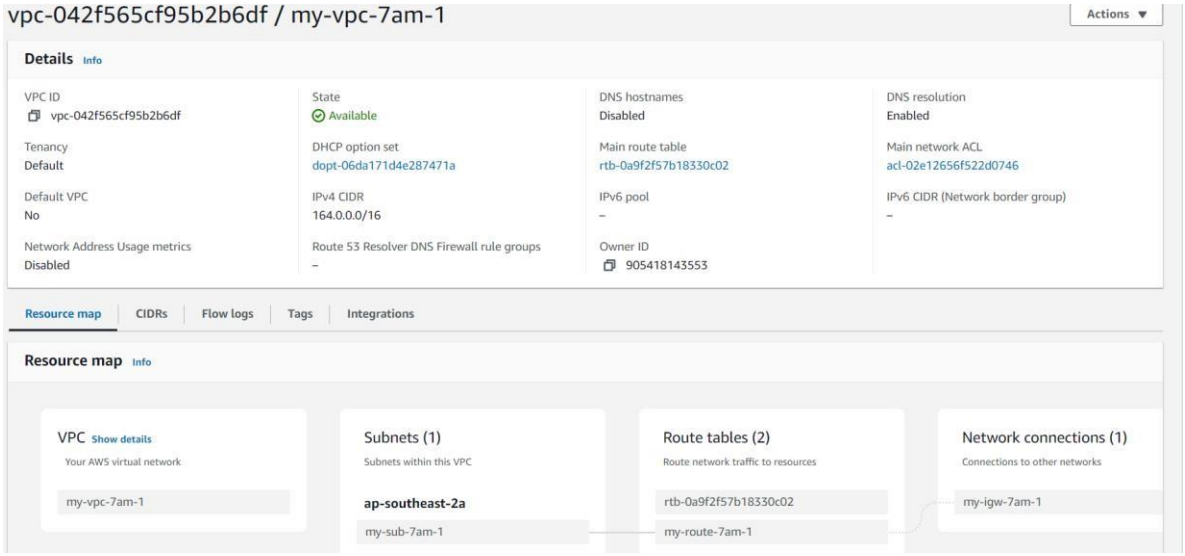
Transit gateway

A transit gateway is a network transit hub that you can use to interconnect your virtual private clouds (VPCs) and on-premises networks. As your cloud infrastructure expands globally, inter-Region peering connects transit gateways together using the AWS Global Infrastructure. All network traffic between AWS data centers is automatically encrypted at the physical layer.

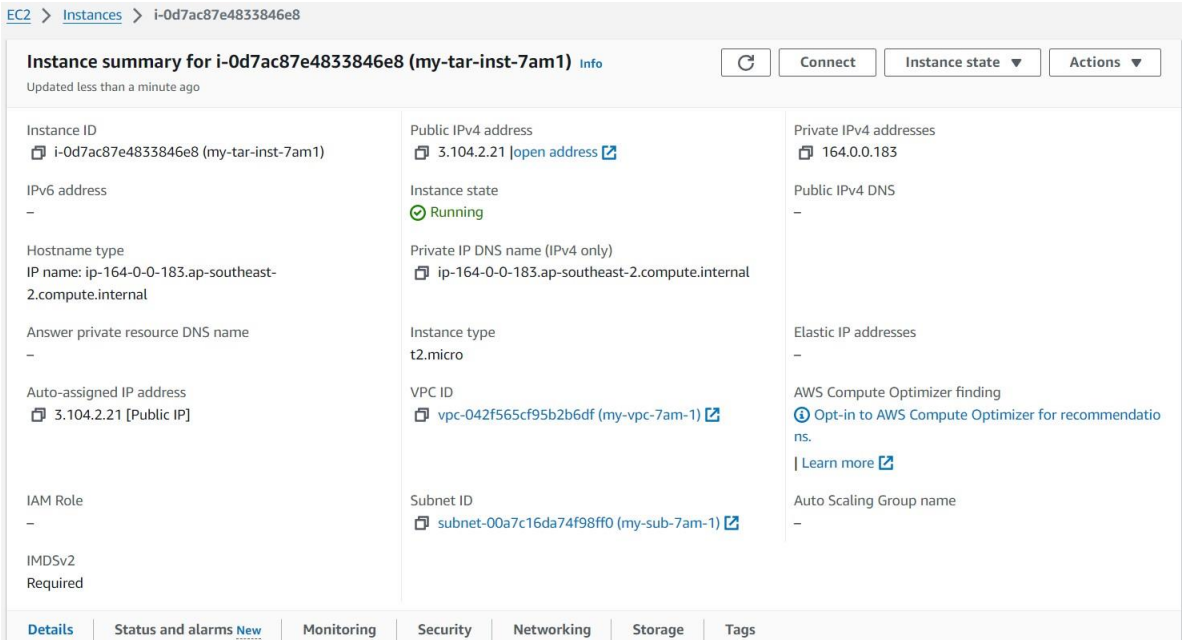


Create a vpc one region:

1.Create a VPC(my-vpc-7am-1) in the Sydney region with the following connections attached to the subnet, internet gateway, route tables.



2.Create an EC2 instance(my-tar-inst-7am1) in the same region by attaching the AMI, Key Pair and network setting.



3.Go to security and click on the security groups i.e Edit inbounded rules Add rule HTTP.

4.Launch the instance(my-tar-inst-7am1) and connect to the WEB.

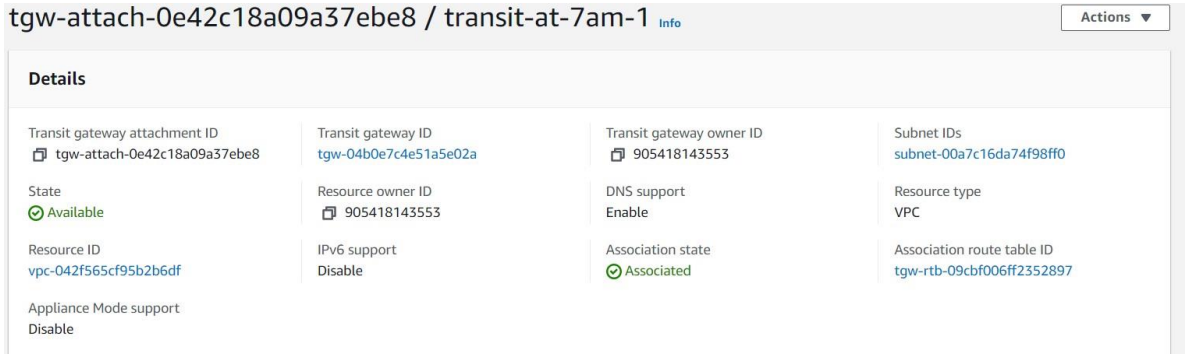
```
[ec2-user@ip-164-0-0-183 ~]$ sudo -i
[root@ip-164-0-0-183 ~]# yum update -y
Last metadata expiration check: 8:09:20 ago on Fri Feb 23 06:14:26 2024.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-164-0-0-183 ~]# yum install nginx -y
Last metadata expiration check: 8:09:34 ago on Fri Feb 23 06:14:26 2024.
Package nginx-1:1.24.0-1.amzn2023.0.2.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@ip-164-0-0-183 ~]# systemctl restart nginx
[root@ip-164-0-0-183 ~]# curl 164.0.0.183:80
<!DOCTYPE html>
<html>
<head>
```

i-0d7ac87e4833846e8 (my-tar-inst-7am1)

PublicIPs: 3.104.2.21 PrivateIPs: 164.0.0.183

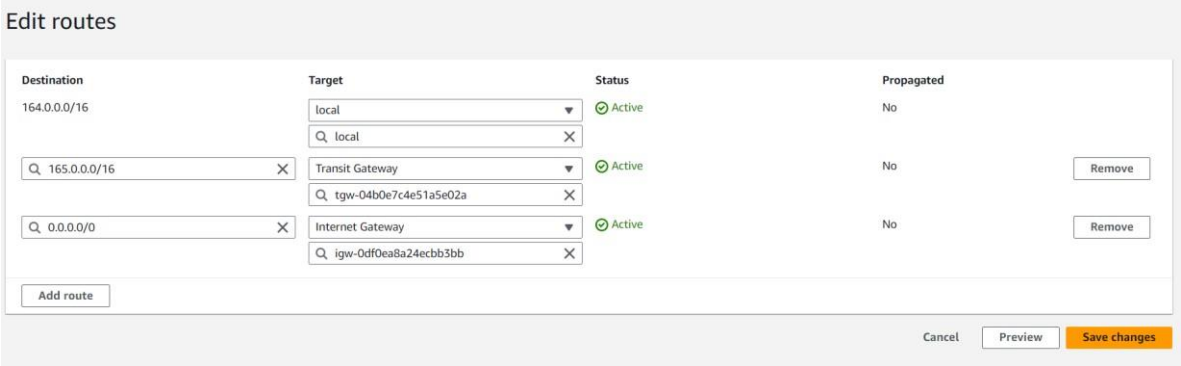
5.Create a transit gateway same region.

- Now create a transit gateway attatchmet to vpc.

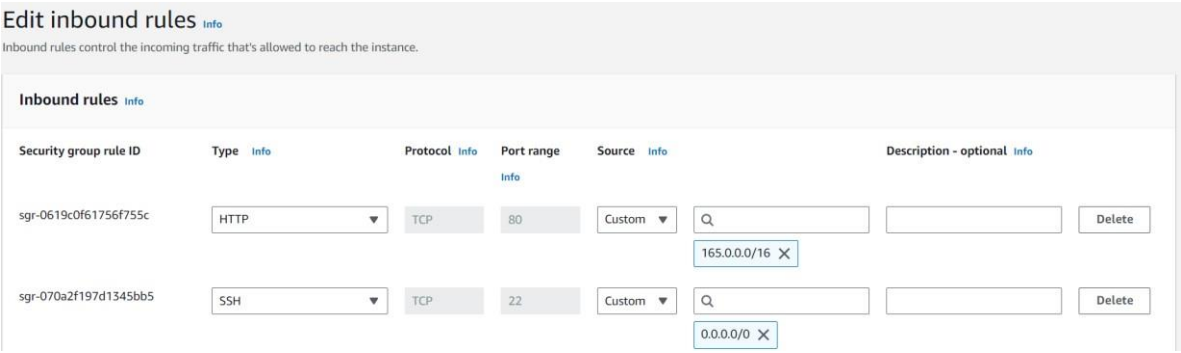


6.This following steps are must do after creation of another vpc region.

- Now goto the route tables in the VPC and click on edit route add the Transit gateway and click on save changes.

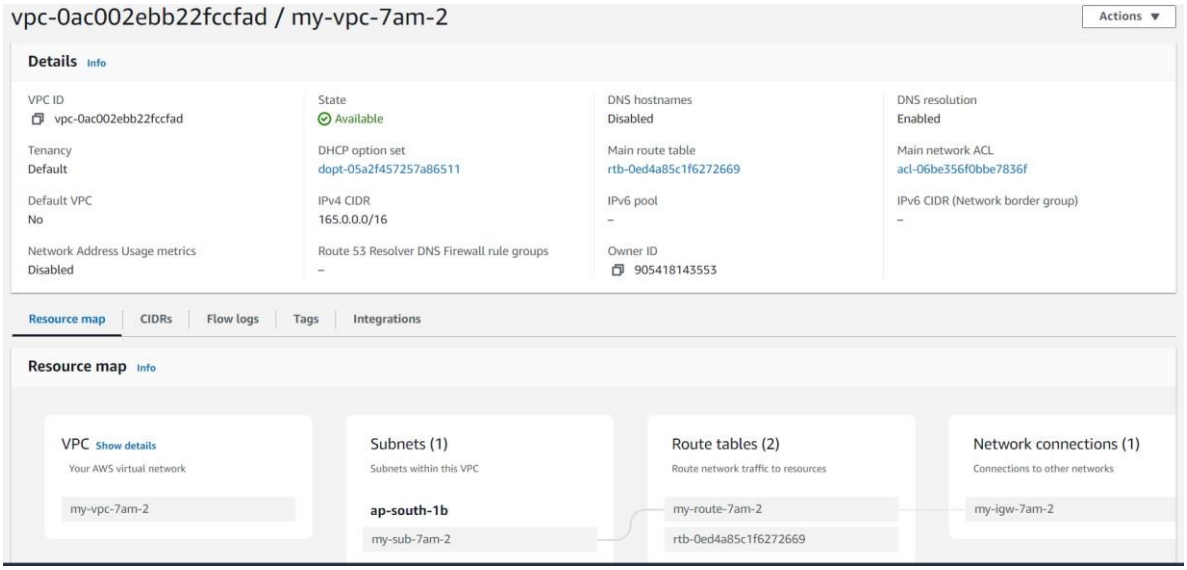


- Go to Ec2 instance security and click on the security groups i.e Edit inbounded rules.

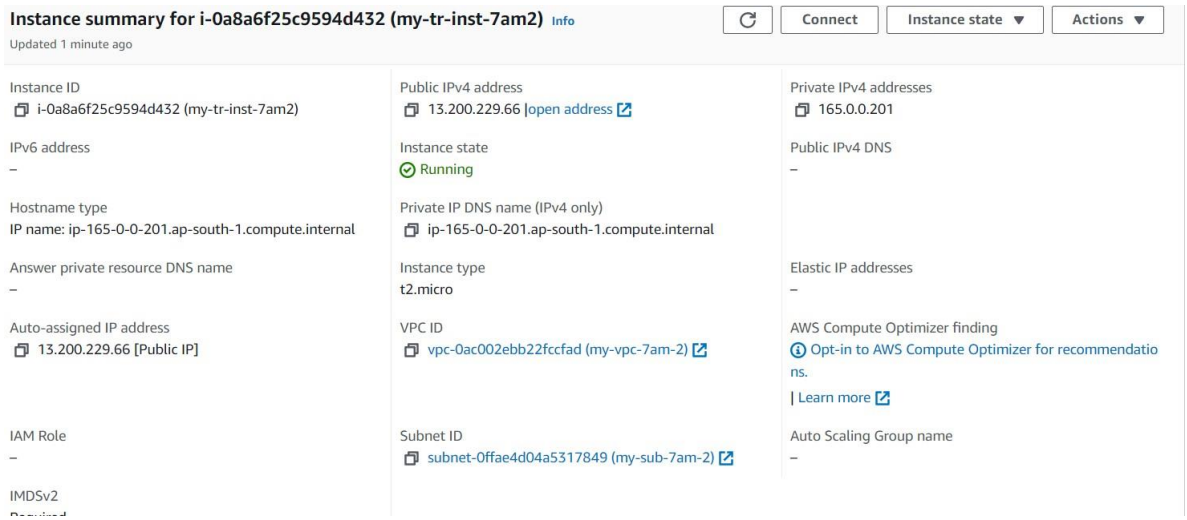


Create a VPC in another region:

1.Create a VPC(my-vpc-7am-2) in the mumbai region with the following connections attached to subnet, internet gateway, route tables.



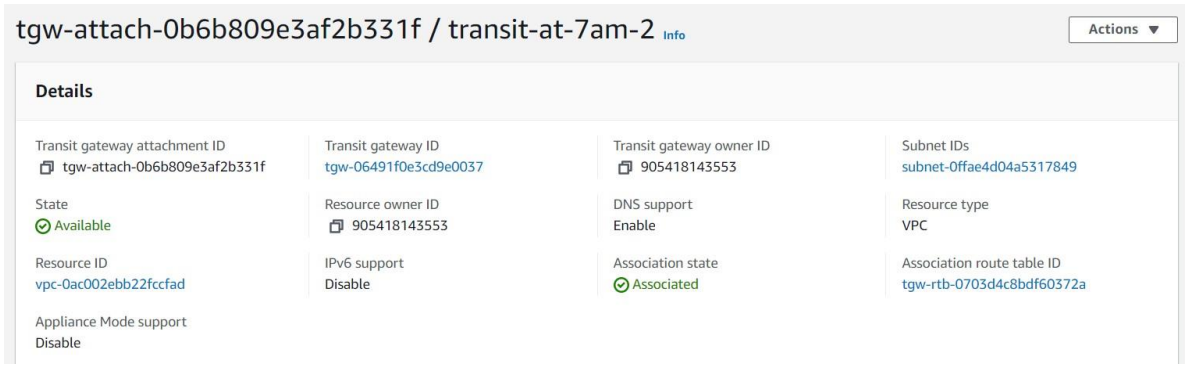
2.Create an EC2 instance(my-tr-inst-7am2) in the same region by attaching the AMI, Key Pair, and network setting.



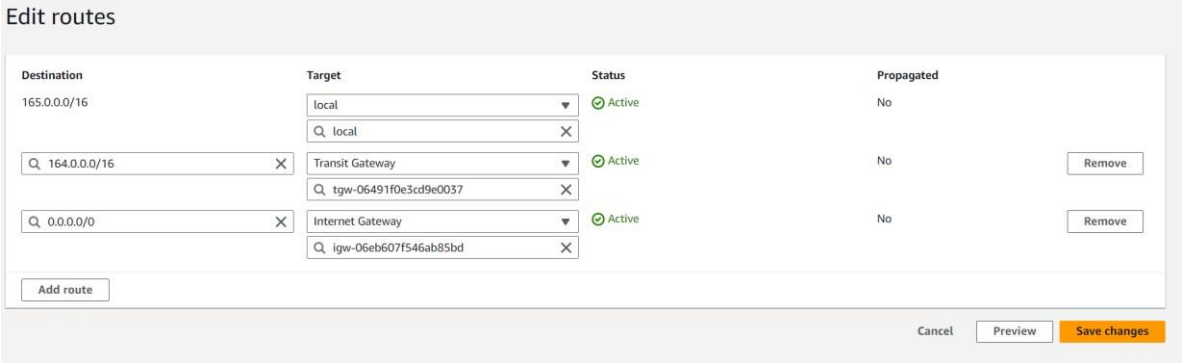
3.Go to security and click on the security groups i.e Edit inbounded rules Add rule HTTP.

4.Create a transit gateway in same region.

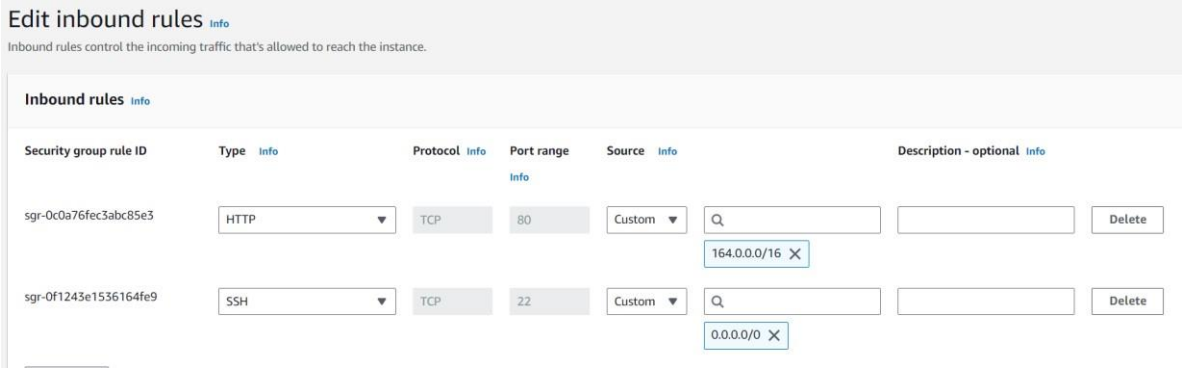
- Create a transit gateway attachement to the vpc.



5.Now goto the route tables in the VPC and click on edit route add the Transit gateway and click on save changes.

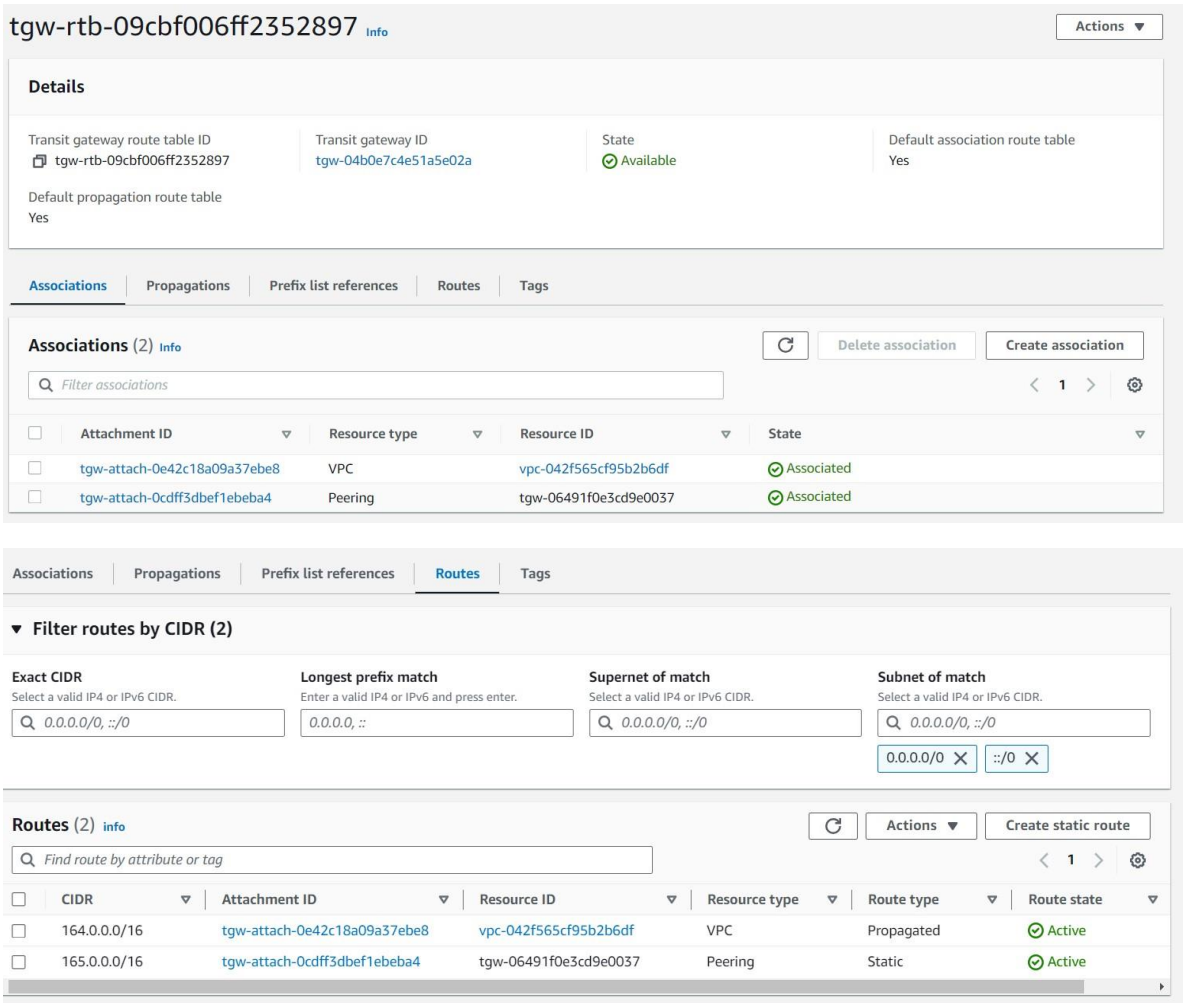


6.Go to Ec2 instance security and click on the security groups i.e Edit inbounded rules.



This is the final step to create a transit gateway routetables:

Create a new attachment in the transit gateway and connect the transit gateway by using peering and there will be a request sent to another transit gateway which is located in another region where the user has to accept it to form the connection in b/w the two transit gateways.



7.Launch the instance(my-tar-inst-7am2) and connect to the WEB.

- In this server copy the my-tar-inst-7am1 , Private IP address and past it.
- This is running with out install nginx.

```
[ec2-user@ip-165-0-0-201 ~]$ sudo -i
[root@ip-165-0-0-201 ~]# curl  164.0.0.183:80
<!DOCTYPE html>
<html>
<head>
<title>Welcome to nginx!</title>
<style>
html { color-scheme: light dark; }
body { width: 35em; margin: 0 auto;
font-family: Tahoma, Verdana, Arial, sans-serif; }
</style>
</head>
<body>
<h1>Welcome to nginx!</h1>
<p>If you see this page, the nginx web server is successfully installed and
working. Further configuration is required.</p>
```

i-0a8a6f25c9594d432 (my-tr-inst-7am2)

PublicIPs: 13.200.229.66 PrivateIPs: 165.0.0.201