

Name-RENUKA

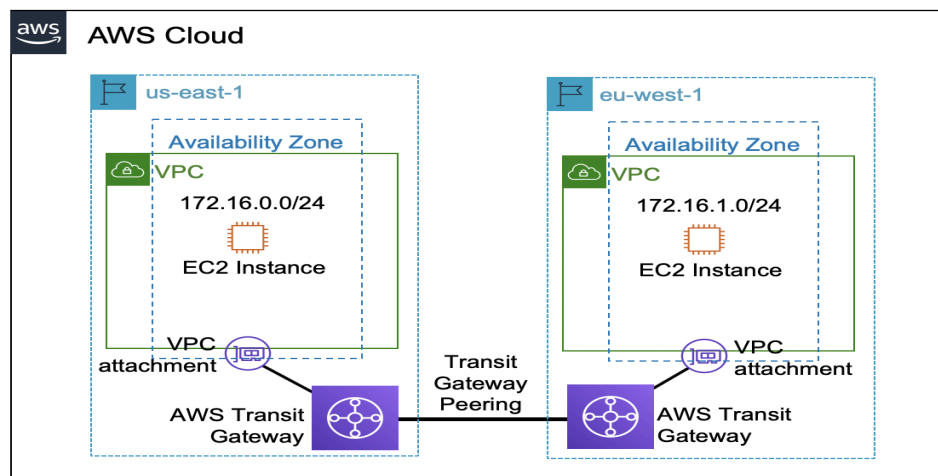
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Batch-119(7am)

## 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.***



### PROCESS OF PEERING TWO TRANSIT GATEWAYS IN TWO DIFFERENT REGIONS:

**1.CREATE VPC in VIRGINIA REGION:**

**VPC include subnets, internet gateways,routetables.**

You successfully created vpc-08333c54535cc7586 / vpc 1

VPC > Your VPCs > vpc-08333c54535cc7586

### vpc-08333c54535cc7586 / vpc 1

Actions

Details Info			
VPC ID vpc-08333c54535cc7586	State Available	DNS hostnames Disabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-0840f69efaca4ad87	Main route table rtb-027459c9a2a79d4e7	Main network ACL acl-07c24b0ce19f91476
Default VPC No	IPv4 CIDR 10.0.0.0/22	IPv6 pool -	IPv6 CIDR (Network border group) -
Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups -	Owner ID 767397688657	

Resource map CIDRs Flow logs Tags Integrations

Resource map Info

## 2.CREATE TRANSIT GATEWAY.

endpoints New

Transit gateways

Transit gateway attachments

Transit gateway policy tables

Transit gateway route tables

Transit gateway multicast

Traffic Mirroring

Mirror sessions

Mirror targets

Mirror filters

VPC Lattice

Getting started New

Service networks New

Services New

VPC > Transit gateways > tgw-0b9343c6a9231544f

### tgw-0b9343c6a9231544f / tg-1

Info

Actions

Details			
Transit gateway ID tgw-0b9343c6a9231544f	Transit gateway ARN arn:aws:ec2:us-east-1:767397688657:transit-gateway/tgw-0b9343c6a9231544f	Owner ID 767397688657	Description noting
State Pending	Default association route table Enable	Default propagation route table Enable	Transit gateway CIDR blocks -
Amazon ASN 64512	Association route table ID tgw-rtb-0c5dcc207868f1c0e	Propagation route table ID tgw-rtb-0c5dcc207868f1c0e	Multicast support Disable
DNS support Enable	Auto accept shared attachments Disable	VPN ECMP support Enable	

Flow logs Sharing Tags

## 3.CREATE TRANSIT GATEWAY ATTACHMENT:

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

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

VPC > Transit gateway attachments > tgw-attach-0e0113f0175d51185

### tgw-attach-0e0113f0175d51185 / tg-a-1

Info

Actions

Details			
Transit gateway attachment ID tgw-attach-0e0113f0175d51185	Transit gateway ID tgw-0b9343c6a9231544f	Transit gateway owner ID 767397688657	Subnet IDs subnet-0e94eee6c92d3e4ee
State Available	Resource owner ID 767397688657	DNS support Enable	Resource type VPC
Resource ID vpc-08333c54535cc7586	IPv6 support Disable	Association state Associated	Association route table ID tgw-rtb-0c5dcc207868f1c0e
Appliance Mode support Disable			

Flow logs Tags

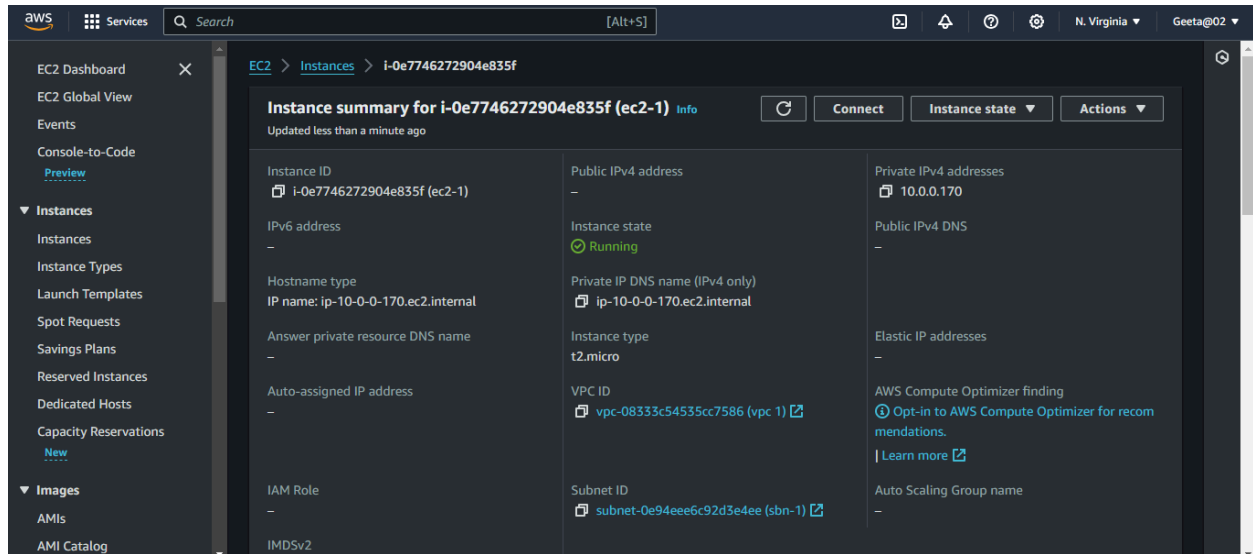
Flow logs Info

Actions Create flow log

#### 4.THEN EDIT ROUTES IN VPC ADD THE TRANSIT GATEWAY.

For that we need to go to vpc> route table>select route>add route>select transit gateway.

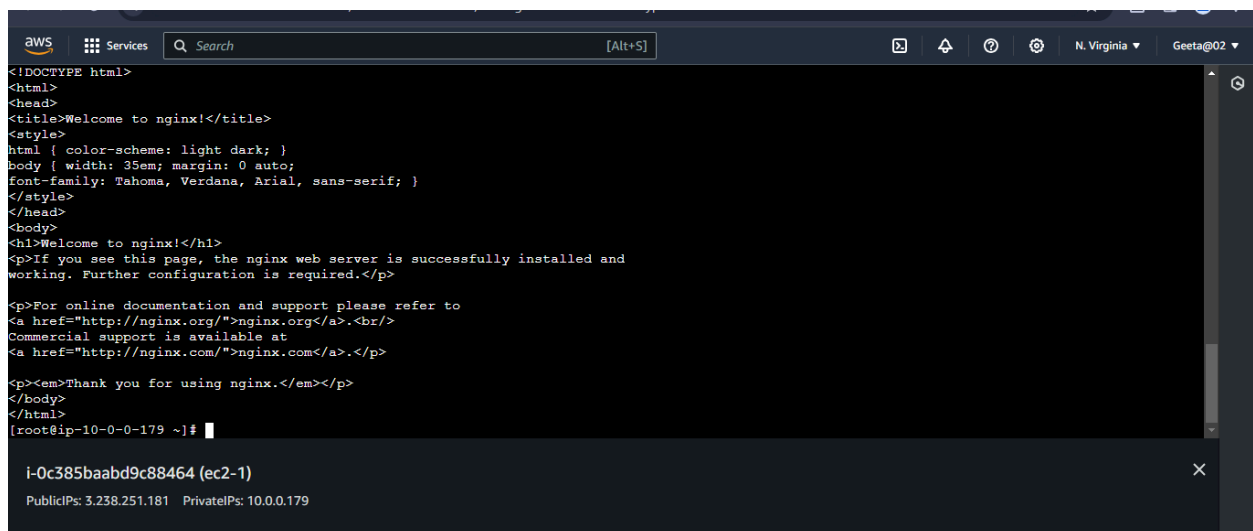
#### 5.THEN LAUNCH AN EC2 INSTANCE.



#### 6.THEN ADD EDIT INBOUND RULES.

For that open the instance>security>security group>edit inbound rules>add rule>select type as http>save changes.

#### 7.THEN CONNECT TO THE INSTANCE .



#### 8.REPEAT STEP ONE TO EIGHT IN THE OTHER REGION(MUMBAI).

#### 9.THEN CREATE TRANSIT GATE WAY ATTACHMENT FOR PEERING:

On the navigation pane, choose Transit Gateway Attachments.

Choose Create transit gateway attachment.

**For Transit gateway ID, choose the transit gateway for the attachment. You can choose a transit gateway that you own or a transit gateway that was shared with you.**

**For Attachment type, choose Peering Connection.**

**Optionally enter a name tag for the attachment.**

**For Account, choose My account.**

**For Region, choose the Region that the transit gateway is located in.**

**For Transit gateway (accepter), enter the ID of the transit gateway that you want to attach.**

**Choose Create transit gateway attachment.**

**Here open virginia region and copy paste the transit gateway id of mumbai region.**

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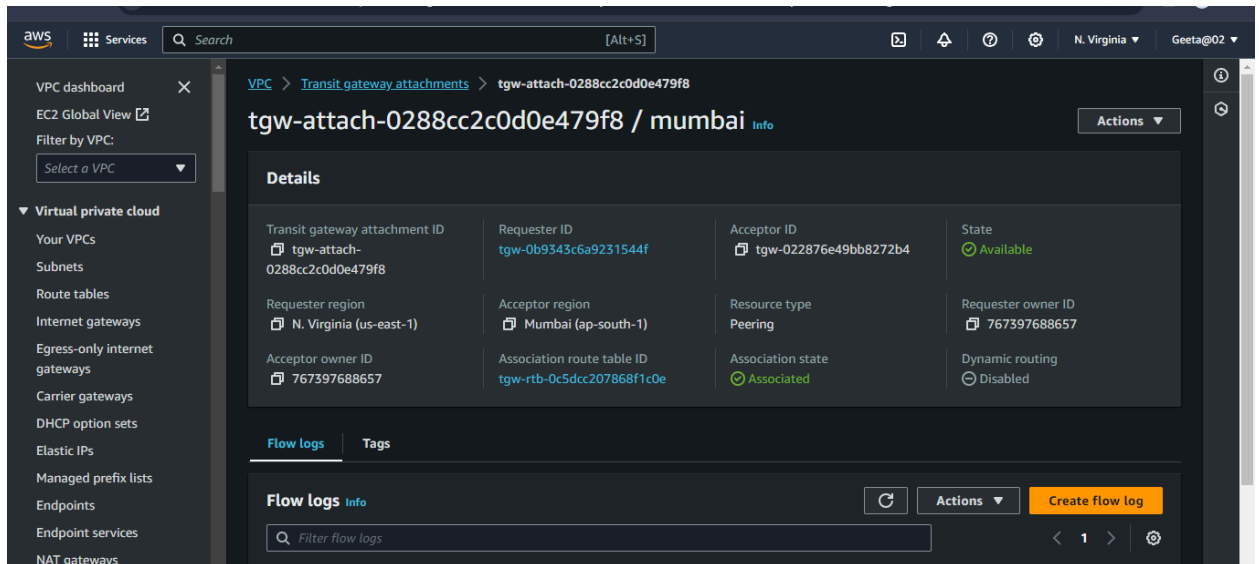
## **10.Accept a peering attachment request**

**To activate the peering attachment, the owner of the accepter transit gateway must accept the peering attachment request. This is required even if both transit gateways are in the same account. The peering attachment must be in the pendingAcceptance state. Accept the peering attachment request from the Region that the accepter transit gateway is located in the region**

**On the navigation pane, choose Transit Gateway Attachments.**

**Select the transit gateway peering attachment that's pending acceptance.**

**Choose Actions, Accept transit gateway attachment.**



Add the static route to the transit gateway route table.

## 11.CREATE STATIC ROUTE TABLES

choose Transit Gateway Route Tables.

Select the route table for which to create a route.

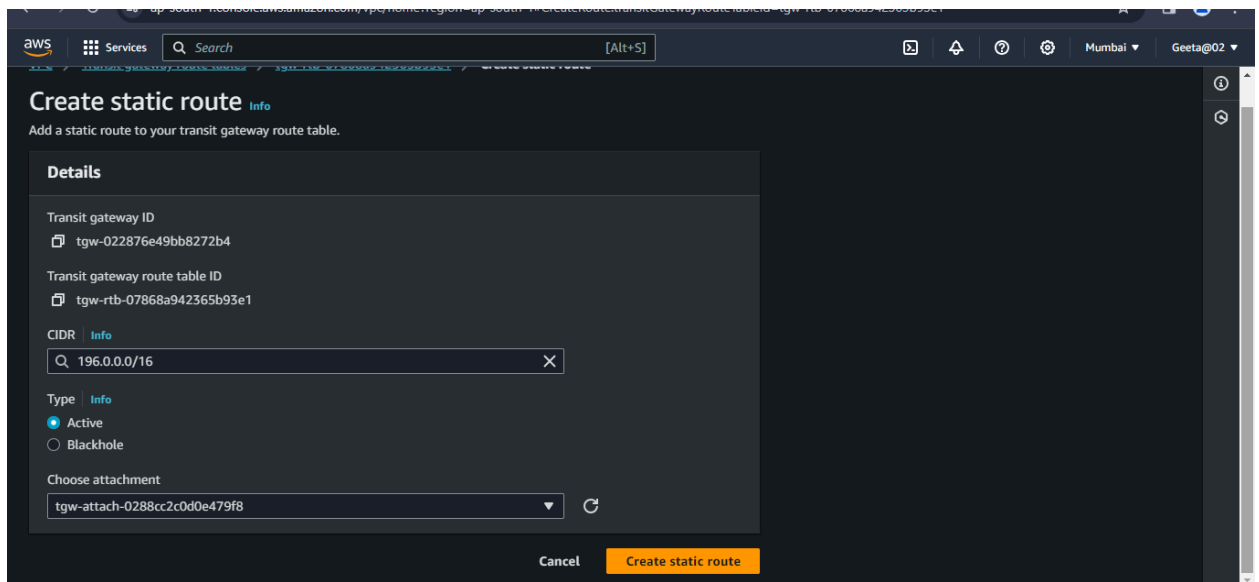
Choose Actions, Create static route.

On the Create static route page, enter the CIDR block for which to create the route. For example, specify the CIDR block of a VPC that's attached to the peer transit gateway.

Choose the peering attachment for the route.

Choose Create static route.

Do the same in both VIRGINIA and MUMBAI regions.



The screenshot shows the AWS Management Console interface for the Mumbai region. The main heading is "Create static route" with an "Info" link. Below the heading is the instruction "Add a static route to your transit gateway route table." A "Details" panel contains the following fields:

- Transit gateway ID:** tgw-022876e49bb8272b4
- Transit gateway route table ID:** tgw-rtb-07868a942365b93e1
- CIDR:** 196.0.0.0/16 (with an "Info" link and a search icon)
- Type:** Active (selected with a radio button), with a "Blackhole" option also available (with an "Info" link)
- Choose attachment:** tgw-attach-0288cc2c0d0e479f8 (with a dropdown arrow and a refresh icon)

At the bottom of the panel are two buttons: "Cancel" and "Create static route".

12. Finally connect to the ec2 instance in MUMBAI and copy paste the private id of Virginia with the command `curl u` you can access without any installation as we already installed it in the Virginia region