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7 AM BATCH-(B-119)

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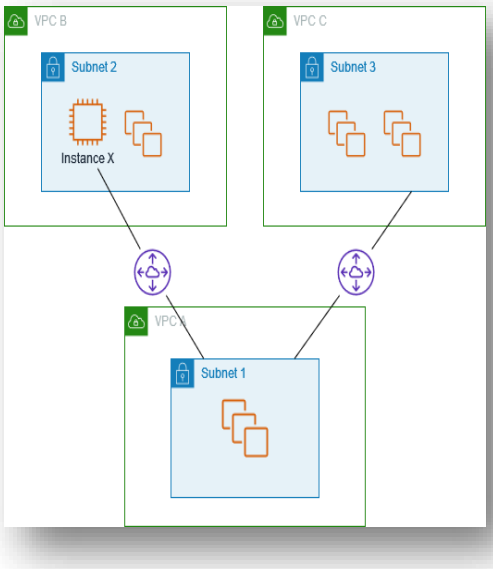
PEERING :

MEANING :

A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them using private IPv4 addresses or IPv6 addresses. Instances in either VPC can communicate with each other as if they are within the same network. We can create a VPC peering connection between our own VPCs, or with a VPC in another AWS account. The VPCs can be in different Regions (also known as an inter-Region VPC peering connection).



PROCESS OF CREATING PEERS IN TWO DIFFERENT REGIONS OF THE VPC:

- **STEP 1:We need to create a default vpc**

Create vpc in any one region for example- **in the Asia Pacific (Mumbai) region (ap-south-1).**

1. create by clicking "Your VPCs" in the VPC Dashboard.
2. Click the "Create VPC" button.
3. Fill in the VPC details, only the name, and leave the other setting as default.
4. Click "Create VPC."

- **STEP 2:**

1.We need to create a subnet then internet gateway and then attach the internet gateway then create a route table.
2.After creating route table then go to subnets association there edit and save the association.
3.Then go to actions >edit routes>add routes with internet gateway as the target.

- **STEP 3:LAUNCHING AN EC2 INSTANCE.**

1.Click the "Launch Instance" button.
2.Select an "Amazon Linux Server" AMI based on your requirements.
3.For instance, type, set as "t2.micro" is a free tier eligible.
4.If you already have an EC2 "key pair", select it.
5.If not, create a "new key pair". You'll use this key pair to securely connect to your Windows EC2 instance.
6."Save the file" on your local device.
7.Automatically "assigned public IP" should be "Enabled" for Private Subnet and vice-versa.
8.Click "Launch" to proceed.

Repeat the above three steps in the US-East (N. Virginia) region us-east-1

- **STEP 4: CONNECT TO THE EC2 INSTANCE:**

1.Connect to the EC2 instance after launching the instance
2.Open a terminal or command prompt on your local machine.
3.Navigate to the directory where your private key (.pem) file is located.
4.Use the chmod command to change the permissions of the private key file to be secure: “chmod 400 your-key.pem”
5.Connect to your EC2 instance using SSH, replacing your-key.pem with the actual key file and your-instance-public-IP with your EC2 instance's public IP address: “ssh -i your-key.pem ec2-user@your-instance-public-ip”
6.If you see a message asking if you want to continue connecting, type "yes" and press Enter.
7.You are now connected to your EC2 instance via SSH. You should see the command prompt for your instance in your terminal.

We need to do it to both the instances.

- **STEP 5 CREATING AND ACCEPTING PEERING CONNECTION:**

1.In the VPC Dashboard, click on "Peering Connections" in the left sidebar.
2.Click on the "Create Peering Connection" button.
3.Fill in the details for the peering connection, including a name, your VPC ID (in the current region), and the peer VPC ID (in the other region).

4.Repeat this step in the other region to create a peering connection from the second VPC to the first VPC.
5.After you've created the peering connections in both regions, you'll need to accept the peering request.
6.In the VPC Dashboard, select "Peering Connections."

- **Step 6: Ping the Peered VPC:**

1.Once connected to your EC2 instance, use the ping command to ping an EC2 instance or resource in the peered VPC.
2.Replace peer-instance-private-ip with the private IP address of the resource you want to ping in the other VPC: “ping peer-instance-private-ip”
3.Find the pending peering request, select it, and click "Actions" -> "Accept Request" in both regions.