

VPC Peering Runbook

1. Introduction to VPC Peering

VPC Peering allows you to connect two Virtual Private Clouds (VPCs) enabling resources in the VPCs to communicate with each other using private IP addresses. Peering is a networking connection between two VPCs that allows them to route traffic to each other privately.

- The connected VPCs can be in the same AWS Account, same region or different accounts and regions known as inter-Region VPC peering connection.

2. Prerequisites

Before setting up a VPC peering connection, ensure you have the following:

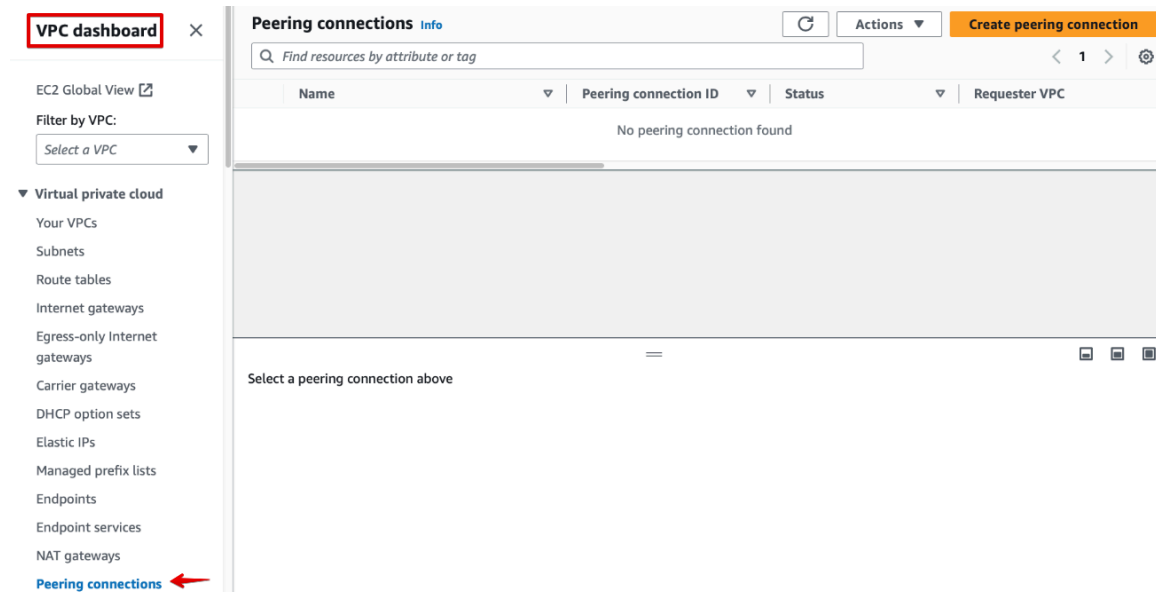
- Two VPCs in the same or different AWS accounts.
- Proper IAM permissions to create and accept VPC peering connections.
- Understanding of the CIDR blocks of the VPCs.

3. Steps to Create a VPC Peering Connection

3.1 Create VPC Peering Connection

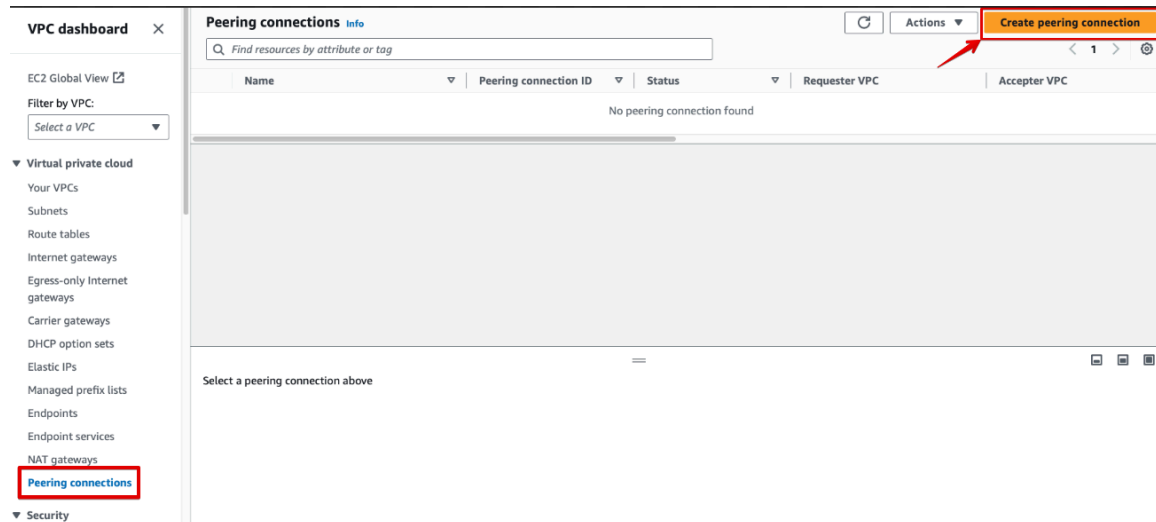
1. Navigate to the VPC Dashboard:

- Open the AWS Management Console.
- Navigate to the VPC service.



2. Create Peering Connection:

- In the left-hand menu, select "Peering Connections."
- Click on "Create Peering Connection."



3. Configure Peering Connection:

- Select the requester VPC.
- Enter the VPC ID of the accepter VPC.
- Choose whether the VPCs are in the same account or different accounts.

Create peering connection

A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them privately.

Peering connection settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.

Select a local VPC to peer with

VPC ID (Requester)

VPC CIDRs for vpc-00e5d0e5c4a1c8388 (jj-tech-vpc-VPC)

CIDR	Status	Status reason
192.168.0.0/16	Associated	-

Select another VPC to peer with

Account
☒ My account
☐ Another account

Region
☐ This Region (us-east-1)
☒ Another Region

VPC ID (Accepter)

4. Review and Create:

- Review the settings and click on "Create Peering Connection."

Select a local VPC to peer with

VPC ID (Requester)
vpc-00e5d0e5c4a1c8388 (jj-tech-vpc-VPC)

VPC CIDRs for vpc-00e5d0e5c4a1c8388 (jj-tech-vpc-VPC)

CIDR	Status	Status reason
192.168.0.0/16	Associated	-

Select another VPC to peer with

Account
☒ My account
☐ Another account

Region
☐ This Region (us-east-1)
☒ Another Region

Europe (Frankfurt) (eu-central-1)

VPC ID (Acceptor)
vpc-0372480c40a3fbee4

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 jjtech-vpc-peeringDemo X

Remove

Add new tag

You can add 49 more tags.

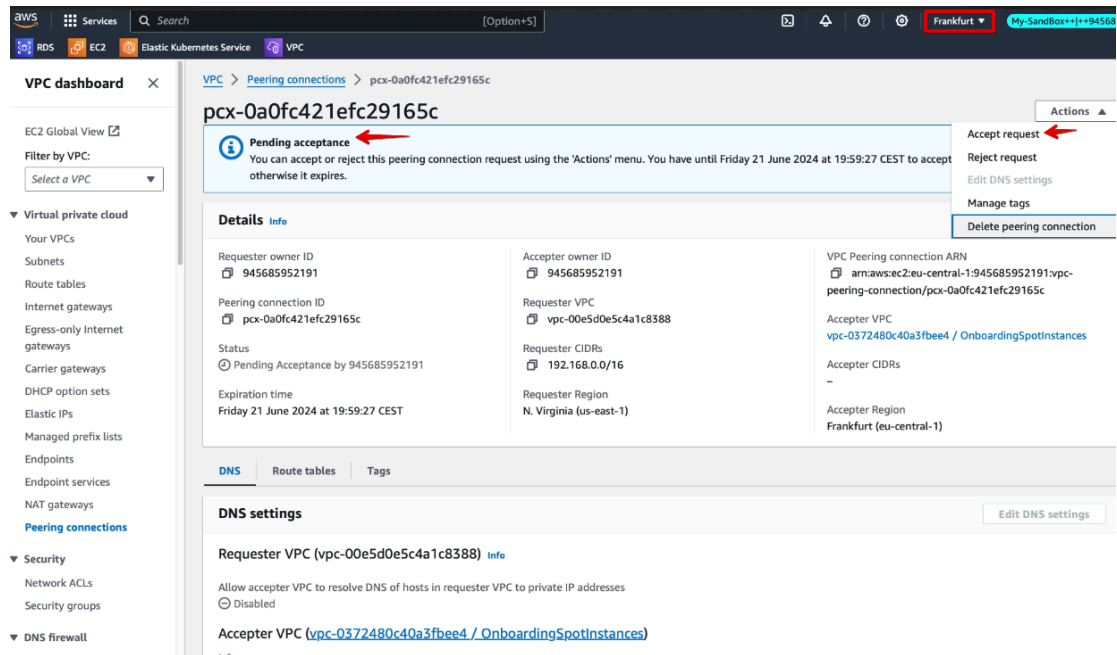
Cancel

Create peering connection

3.2 Accept VPC Peering Connection

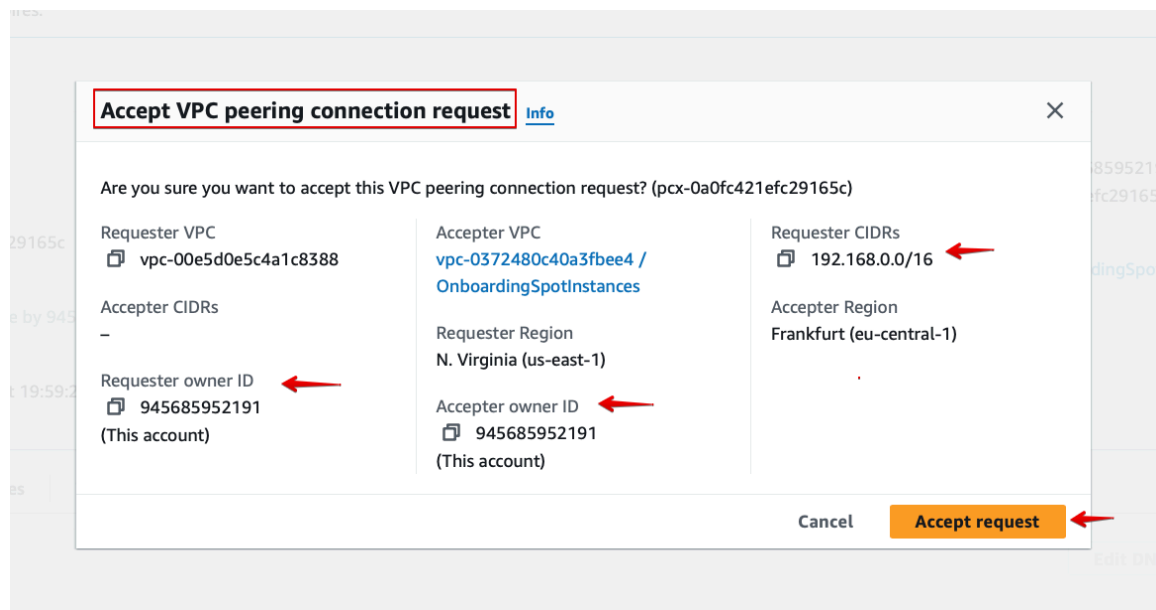
1. Navigate to Peering Connections:

- In the VPC Dashboard of the acceptor account, or the acceptor region, go to "Peering Connections."
- You will see a pending peering connection request.



2. Accept Request:

- Select the pending peering connection and click on "Actions."
- Choose "Accept Request."



3.3 Update Route Tables

To enable the flow of traffic between the VPCs in a peering connection using private IPs, the route table(s) of the VPCs in the peering connection must be updated to point to the IP address range of the peered VPC, with a target being the VPC peering.

1. Navigate to Route Tables:

- Go to the "Route Tables" section in the VPC Dashboard.

VPC dashboard ×

Route tables (1/1) Info

Find resources by attribute or tag

vpc-00e5d0e5c4a1c8388 X Clear filters

Filter by VPC: Select a VPC

Virtual private cloud

- Your VPCs
- Subnets
- Route tables
- Internet gateways
- Egress-only Internet gateways
- Carrier gateway
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- Endpoints
- Endpoint services

no route to peering

Name	Route table ID	Explicitly defined	Edge	Main	VPC	Owner ID
-	rtb-0efccc8d7444d...	-	-	Yes	vpc-00e5d0e5c4a1c8388 jitech-vpc-VPC	945685952191

rtb-0efccc8d7444d761e

Details Routes Subnet associations Edge associations Route propagation Tags

Routes (1)

Filter routes

Destination	Target	Status	Propagated
192.168.0.0/16	local	Active	No

2. Add Routes:

- Select the route table associated with your subnets.
- Click on "Edit routes."
- Add a route with the destination of the peer VPC CIDR block and the target as the VPC peering connection ID.

VPC > Route tables > rtb-0efccc8d7444d761e > Edit routes

Edit routes

Destination	Target	Status	Propagated
192.168.0.0/16	local	Active	No
10.0.0.0/16	Peering Connection	-	No

pcx-0a0fc421efc29165c (jitech-vpc-peeringDemo)

Cancel Preview Save changes

4. Verifying VPC Peering Connection

Ping Test:

NB: To be done as assignment after completion of networking / EC2