

Assignment on VPC Peering

Create Two VPCs (one in each AWS account) with non-overlapping CIDR ranges.
NOTE: Used different Subnets as part of testing:

VPC-1 (Account A): 172.1.0.0/24 -> kedhar

VPC-2 (Account B): 172.1.1.0/24 -> Phani

Set Up VPC Peering:

Account A: Create a VPC Peering request to Account B.

Account B: Accept the peering request.

The screenshot shows the AWS Management Console for Account A (kedhar) in the Asia Pacific (Mumbai) region. The left sidebar displays the VPC dashboard with options for Virtual private cloud, Security, and PrivateLink and Lattice. The main content area shows the 'Peering connections (1/1)' page. A table lists the peering connection 'pcx-05d6be976c47f8067' with a status of 'Active'. Below the table, the details for this connection are shown, including the Requester owner ID (891377060712), Peering connection ID (pcx-05d6be976c47f8067), Status (Active), and Expiration time. The details also show the Accepter owner ID (222634405778), Requester VPC (vpc-09932f51e4138205b), Requester CIDRs (172.1.1.0/24), Requester Region (Ohio (us-east-2)), VPC Peering connection ARN, and the Accepter VPC (vpc-0fd309e631f2813a9 / Assignment-1) with its CIDRs (172.1.0.0/24) and Region (Mumbai (ap-south-1)).

| Name | Peering connection ID | Status | Requester VPC | Accepter VPC |
|------|-----------------------|--------|-----------------------|--------------------------------------|
| - | pcx-05d6be976c47f8067 | Active | vpc-09932f51e4138205b | vpc-0fd309e631f2813a9 / Assignment-1 |

pcx-05d6be976c47f8067

Details

Requester owner ID
891377060712

Peering connection ID
pcx-05d6be976c47f8067

Status
Active

Expiration time
-

Accepter owner ID
222634405778

Requester VPC
vpc-09932f51e4138205b

Requester CIDRs
172.1.1.0/24

Requester Region
Ohio (us-east-2)

VPC Peering connection ARN
arn:aws:ec2:ap-south-1:222634405778:vpc-peering-connection/pcx-05d6be976c47f8067

Accepter VPC
vpc-0fd309e631f2813a9 / Assignment-1

Accepter CIDRs
172.1.0.0/24

Accepter Region
Mumbai (ap-south-1)

The screenshot shows the AWS Management Console for Account B (Phani) in the United States (Ohio) region. The left sidebar displays the VPC dashboard with options for Virtual private cloud, Security, and PrivateLink and Lattice. The main content area shows the 'Peering connections (1/1)' page. A table lists the peering connection 'Testing_peering connection' with a status of 'Active'. Below the table, the details for this connection are shown, including the Requester owner ID (891377060712), Peering connection ID (pcx-05d6be976c47f8067), Status (Active), and Expiration time. The details also show the Accepter owner ID (222634405778), Requester VPC (vpc-09932f51e4138205b / my_test_01), Requester CIDRs (172.1.1.0/24), VPC Peering connection ARN, and the Accepter VPC (vpc-0fd309e631f2813a9) with its CIDRs (172.1.0.0/24) and Region (Mumbai (ap-south-1)).

| Name | Peering connection ID | Status | Requester VPC | Accepter VPC |
|----------------------------|-----------------------|--------|-------------------------------|-----------------------|
| Testing_peering connection | pcx-05d6be976c47f8067 | Active | vpc-09932f51e4138205b / my... | vpc-0fd309e631f2813a9 |

pcx-05d6be976c47f8067 / Testing_peering connection

Details

Requester owner ID
891377060712

Peering connection ID
pcx-05d6be976c47f8067

Status
Active

Accepter owner ID
222634405778

Requester VPC
vpc-09932f51e4138205b / my_test_01

Requester CIDRs
172.1.1.0/24

VPC Peering connection ARN
arn:aws:ec2:us-east-2:891377060712:vpc-peering-connection/pcx-05d6be976c47f8067

Accepter VPC
vpc-0fd309e631f2813a9

Accepter CIDRs
172.1.0.0/24

Accepter Region
Mumbai (ap-south-1)

Acceptance Criteria

Test connectivity between instances in both VPCs using ping and SSH.

Ping from VM in Account Kedhar to Account Phani using Private IP and vice versa:

```
ubuntu@ip-172-1-0-11:~$ ping 172.1.1.44
PING 172.1.1.44 (172.1.1.44) 56(84) bytes of data.
64 bytes from 172.1.1.44: icmp_seq=1 ttl=64 time=226 ms
64 bytes from 172.1.1.44: icmp_seq=2 ttl=64 time=226 ms
^C
--- 172.1.1.44 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1001ms
rtt min/avg/max/mdev = 226.389/226.437/226.486/0.048 ms
ubuntu@ip-172-1-0-11:~$ ls
ubuntu@ip-172-1-0-11:~$ ping 192.168.1.23
PING 192.168.1.23 (192.168.1.23) 56(84) bytes of data.
^C
--- 192.168.1.23 ping statistics ---
4 packets transmitted, 0 received, 100% packet loss, time 3061ms
ubuntu@ip-172-1-0-11:~$
```

i-020f0d7a9e3f124b4 (ex2-pub)

PublicIPs: 13.126.61.128 PrivateIPs: 172.1.0.11

CloudShell Feedback

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```
* Ubuntu Pro delivers the most comprehensive open source security and
  compliance features.

  https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

Last login: Fri Feb  7 07:14:21 2025 from 3.16.146.4
ubuntu@ip-172-1-1-44:~$ ping 172.1.0.11
PING 172.1.0.11 (172.1.0.11) 56(84) bytes of data.
64 bytes from 172.1.0.11: icmp_seq=1 ttl=64 time=228 ms
64 bytes from 172.1.0.11: icmp_seq=2 ttl=64 time=227 ms
64 bytes from 172.1.0.11: icmp_seq=3 ttl=64 time=227 ms
64 bytes from 172.1.0.11: icmp_seq=4 ttl=64 time=228 ms
^C
--- 172.1.0.11 ping statistics ---
5 packets transmitted, 4 received, 20% packet loss, time 4006ms
rtt min/avg/max/mdev = 227.315/227.610/227.955/0.249 ms
ubuntu@ip-172-1-1-44:~$
```

i-076d419ac44c2b155 (peering_test_1)

PublicIPs: 52.15.144.59 PrivateIPs: 172.1.1.44

SSH for the Private VM from Account A by using public IP VM from Account B:

```
chown: changing ownership of 'Public-ec2-pem.pem': Operation not permitted
ubuntu@ip-172-1-1-44:/Kedhar$ sudo chown ubuntu:ubuntu Public-ec2-pem.pem
ubuntu@ip-172-1-1-44:/Kedhar$ ssh -i "Public-ec2-pem.pem" ubuntu@172.1.0.55
Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1021-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:       https://ubuntu.com/pro

System information as of Fri Feb  7 11:47:26 UTC 2025

System load:  0.0           Processes:      106
Usage of /:   25.1% of 6.71GB Users logged in: 1
Memory usage: 20%          IPv4 address for enx0: 172.1.0.55
Swap usage:   0%

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Fri Feb  7 07:44:00 2025 from 172.1.1.44
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

ubuntu@ip-172-1-0-55:~$
```

i-076d419ac44c2b155 (peering_test_1)

PublicIPs: 52.15.144.59 PrivateIPs: 172.1.1.44

aws

Search

[Option+S]

Asia Pacific (Mumbai)

kedhar @ aws-kedhar-v3

EC2

EC2

Dashboard

EC2 Global View

Events

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Lifecycle Manager

Network & Security

Security Groups

Instances (1/2)

Find Instance by attribute or tag (case-sensitive)

All states

| | Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 |
|-------------------------------------|------------|---------------------|----------------|---------------|-------------------|--------------|-------------------|-------------|
| <input checked="" type="checkbox"/> | Private-vm | i-09f5d5b21228ad777 | Running | t2.micro | 2/2 checks passed | View alarms | ap-south-1b | - |
| <input type="checkbox"/> | ex2-pub | i-020f0d7a9e3f124b4 | Running | t2.micro | 2/2 checks passed | View alarms | ap-south-1b | - |

i-09f5d5b21228ad777 (Private-vm)

Details

Status and alarms

Monitoring

Security

Networking

Storage

Tags

Instance summary

Instance ID

i-09f5d5b21228ad777

IPv6 address

-

Hostname type

IP name: ip-172-1-0-55.ap-south-1.compute.internal

Answer private resource DNS name

Public IPv4 address

-

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-1-0-55.ap-south-1.compute.internal

Instance type

Private IPv4 addresses

172.1.0.55

Public IPv4 DNS

-

Elastic IP addresses