

# VPC (Peering Connections)

## ➤ Creating Two (2) VPC'S In Different Regions

### 1. VPC in **First Region** with CIDR (10.0.0.0/16)

The screenshot shows the AWS VPC console for the Ohio region. The left sidebar contains navigation links for VPC dashboard, EC2 Global View, and a filter by VPC dropdown. The main content area, titled 'Your VPCs (2)', displays a table of VPCs. The first VPC is named 'VPC-1' (highlighted with a black box) and has the VPC ID 'vpc-01a42b1847798b705'. Its state is 'Available', and its IPv4 CIDR is '10.0.0.0/16' (highlighted with a red box). The second VPC is unnamed and has the VPC ID 'vpc-05f29b29509b73bc8' with an IPv4 CIDR of '172.31.0.0/16'. The top right of the console shows the 'Ohio' region selected.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	<a href="#">vpc-05f29b29509b73bc8</a>	Available	172.31.0.0/16	-
VPC-1	<a href="#">vpc-01a42b1847798b705</a>	Available	10.0.0.0/16	-

### 2. VPC in **Second Region** with CIDR (192.168.0.0/16)

The screenshot shows the AWS VPC console for the Oregon region. The left sidebar is similar to the first screenshot. The main content area, titled 'Your VPCs (2)', displays a table of VPCs. The first VPC is named 'VPC-B' (highlighted with a black box) and has the VPC ID 'vpc-0e49764d6e56eff73'. Its state is 'Available', and its IPv4 CIDR is '198.168.0.0/16' (highlighted with a red box). The second VPC is unnamed and has the VPC ID 'vpc-0a0305455e385ea92' with an IPv4 CIDR of '172.31.0.0/16'. The top right of the console shows the 'Oregon' region selected.

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	<a href="#">vpc-0a0305455e385ea92</a>	Available	172.31.0.0/16	-
VPC-B	<a href="#">vpc-0e49764d6e56eff73</a>	Available	198.168.0.0/16	-

## ❑ Create Private and public subnets In VPC First...

Note:- Public subnet means we are just assigning Internet Gateway and adding Internet Gateway in Route Tables as simple as that....



Subnets (2) Info

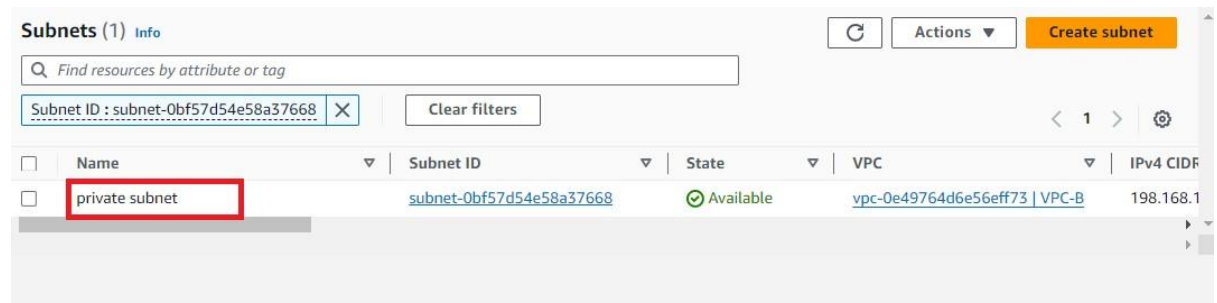
Find resources by attribute or tag

Subnet ID : subnet-0c8ed60ca530527c0 X Subnet ID : subnet-01da5420758f92873 X Clear filters

<input type="checkbox"/>	Name	Subnet ID	State	VPC
<input type="checkbox"/>	Private subnet	<a href="#">subnet-0c8ed60ca530527c0</a>	Available	<a href="#">vpc-01a42b1847798b70</a>
<input type="checkbox"/>	public subnet	<a href="#">subnet-01da5420758f92873</a>	Available	<a href="#">vpc-01a42b1847798b70</a>

## ❑ Create Private subnets In VPC Second...

Note:- Private means we are not assigning Internet Gateway and Doesn't assigning Internet Gateway in Route Tables as simple as that....



Subnets (1) Info

Find resources by attribute or tag

Subnet ID : subnet-0bf57d54e58a37668 X Clear filters

<input type="checkbox"/>	Name	Subnet ID	State	VPC	IPv4 CIDR
<input type="checkbox"/>	private subnet	<a href="#">subnet-0bf57d54e58a37668</a>	Available	<a href="#">vpc-0e49764d6e56eff73   VPC-B</a>	198.168.1

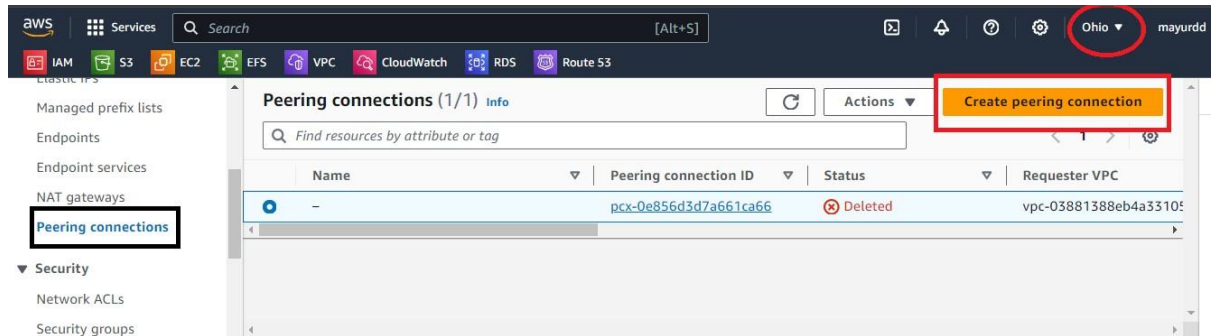
**Error Checking:** - 1) After Creating Instance (private instance) and (public instance) In First VPC, Check where you can ping each other.....???

2) Is we Added ICMP traffic in Security Group....???

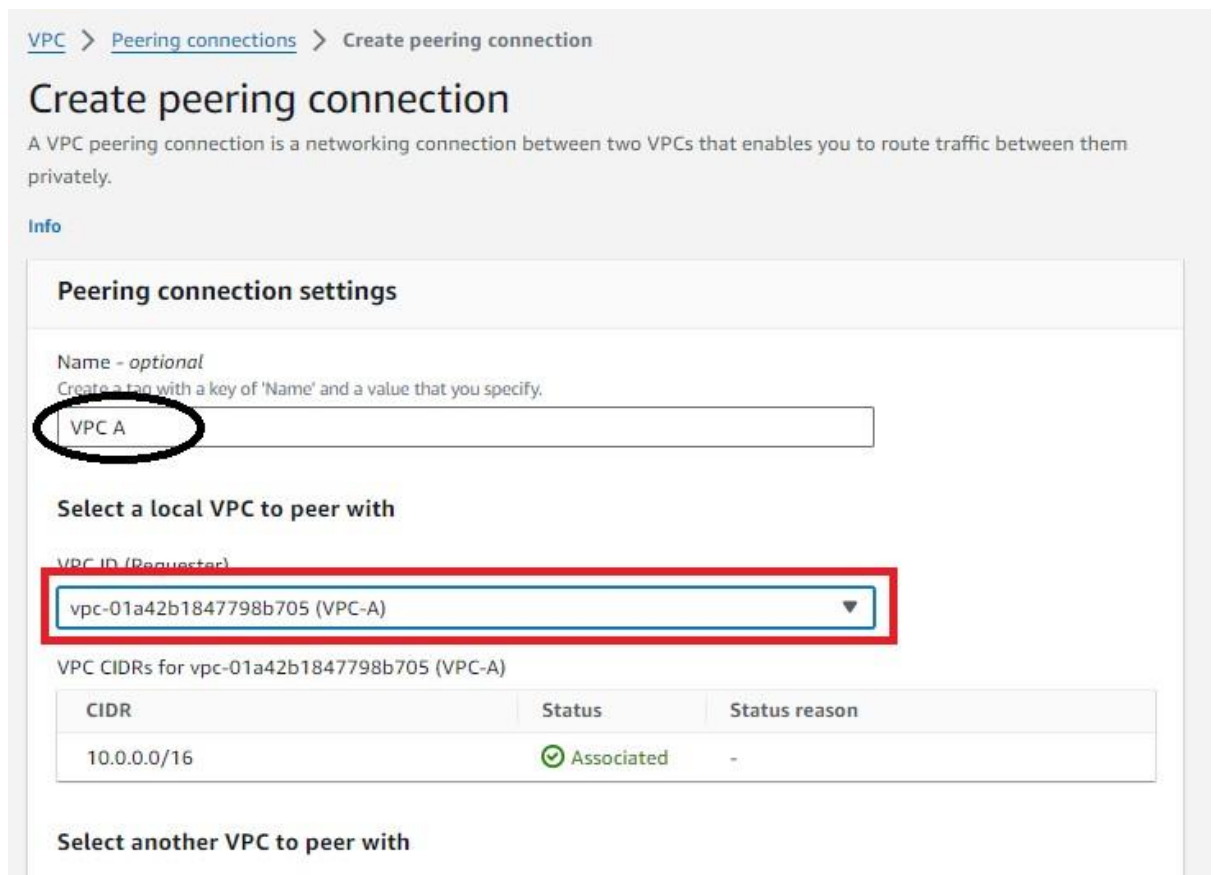
# Peering Private and public VPC

## VPC 1 configuration

1. Click on Create peering connection (Configuration in first VPC)



2. Select VPC name and **Requester ID**



### 3. Click On Another Region, Select The Region and Enter Receiver VPC ID

**Select another VPC to peer with**

Account

☒ My account

☐ Another account

Region

☐ This Region (us-east-2)

☒ Another Region

US West (Oregon) (us-west-2)

VPC ID (Acceptor)

vpc-0e49764d6e56eff73

**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.

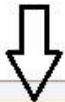
Key Value - optional

Q Name X Q VPC A X Remove

Add new tag

You can add 49 more tags.

Cancel Create peering connection



### 4. Request Sent Successfully To Another Region VPC ...

aws Services Search [Alt+S] Ohio mayurdd

VPC dashboard X

EC2 Global View

Filter by VPC: Select a VPC

Virtual private cloud

Your VPCs

Subnets

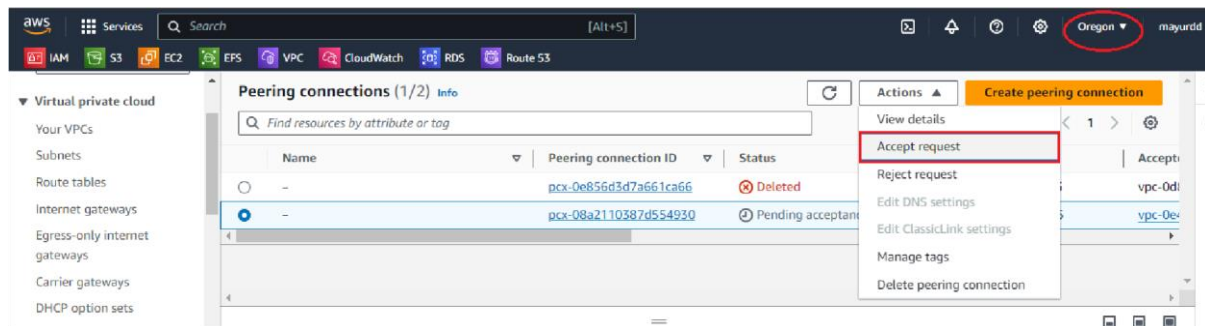
**Peering connections (1/2) Info**

Find resources by attribute or tag

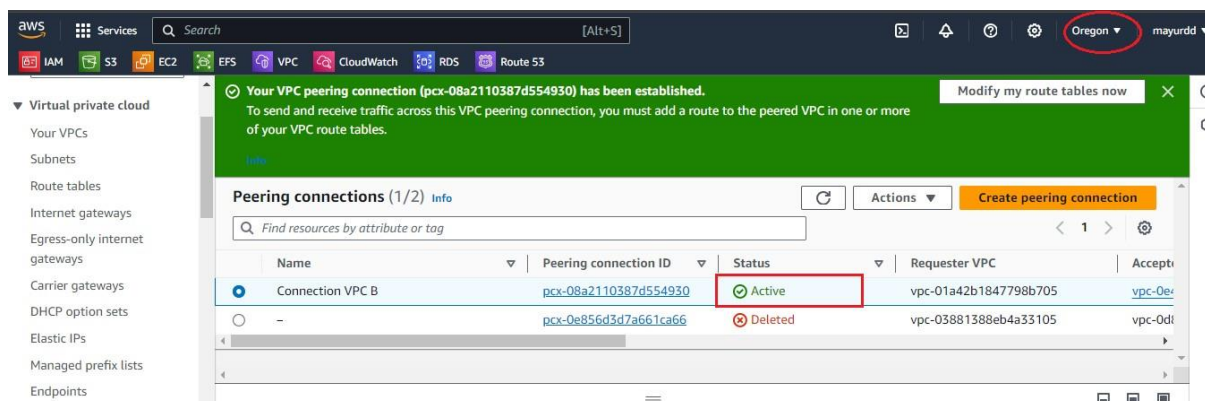
Name	Peering connection ID	Status	Requester VPC
-	pcx-0e856d3d7a661ca66	Deleted	vpc-03881388eb4a33105
VPC A	pcx-08a2110387d554930	Pending acceptance	vpc-01a42b1847798b705

## VPC 2 configuration

### 1. Accept The Request



### 2. VPC peering connection Has been Established....



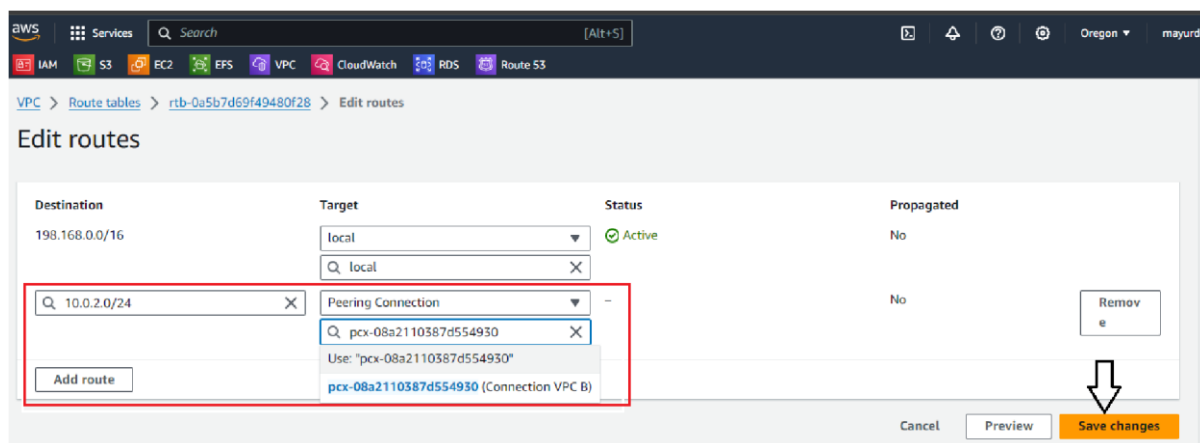
## Route Table Configuration

### 1. Adding VPC 1 subnet in VPC 2 route table

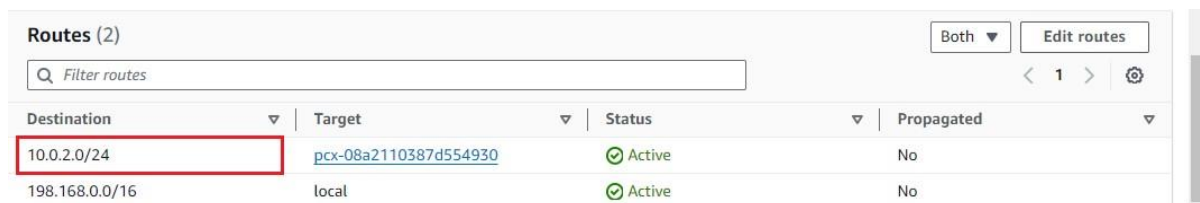
❖ Copy The subnet of first VPC



❖ Paste It into Second VPC route table



❖ Subnet Added in route table successfully....



## 2. Adding VPC 2 subnet in VPC 1 route table

### ❖ Copy The subnet of Second VPC

The screenshot shows the AWS VPC console interface. On the left, the 'Subnets' link is highlighted in the 'Virtual private cloud' section. The main panel displays the details for 'subnet-0bf57d54e58a37668 / private subnet'. The 'IPv4 CIDR' field is highlighted with a red box, showing '198.168.1.0/24'. Other details include Subnet ID, Subnet ARN, Availability Zone (us-west-2a), and Route table (rtb-0a5b7d69f49480f28 | VPC B).

### ❖ Paste It into First VPC route table

The screenshot shows the 'Edit routes' page for route table 'rtb-0672bb6b4fb420bad'. The table lists existing routes. A new route is being added, highlighted with a red box, with the following details:

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No
198.168.1.0/24	Peering Connection	Active	No
0.0.0.0/0	Internet Gateway	Active	No

### ❖ Subnet Added in route table successfully....

Routes (3)				Both ▾	Edit routes
Filter routes				< 1 >	
Destination ▾	Target ▾	Status ▾	Propagated ▾		
0.0.0.0/0	<a href="#">igw-0f4c4ac2c356d6044</a>	Active	No		
10.0.0.0/16	local	Active	No		
198.168.1.0/24	<a href="#">pcx-08a2110387d554930</a>	Active	No		



**Result:-**

We are successfully able to ping public cloud instance to private cloud instances:-

```
#  
~\_##### Amazon Linux 2023  
~~\_#####  
~~\_###|  
~~\_#/ https://aws.amazon.com/linux/amazon-linux-2023  
~~~~v~' '~>  
~~~~  
~~~~_-/_/  
~~~~/_m/' -/_/
```

[ec2-user@ip-10-0-2-254 ~]\$ ping 198.168.1.246  
PING 198.168.1.246 (198.168.1.246) 56(84) bytes of data.  
64 bytes from 198.168.1.246: icmp\_seq=1 ttl=127 time=51.1 ms  
64 bytes from 198.168.1.246: icmp\_seq=2 ttl=127 time=51.1 ms  
^C  
--- 198.168.1.246 ping statistics ---  
2 packets transmitted, 2 received, 0% packet loss, time 1001ms  
rtt min/avg/max/mdev = 51.056/51.056/51.057/0.000 ms  
[ec2-user@ip-10-0-2-254 ~]\$ █

And hence we are pinging each other it means now we can able to get ssh access of each other as well.....