

Module 4: VPC Assignment - 2

You have been asked to:

1. Create 2 VPCs in the North Virginia region named MYVPC1 and MYVPC2.
2. Create one VPC in the Oregon region named VPCOregon1.
3. Create a peering connection between MYVPC1 and MYVPC2.
4. Create a peering connection between MYVPC2 and VPCOregon1.

Let's create the first VPC in the N.Virginia Region. Select 'Create VPC'.

The screenshot shows the AWS Management Console for the VPC service in the North Virginia (us-east-1) region. The page is titled "VPC Management Console" and includes a search bar and navigation tabs for "Create VPC" and "Launch EC2 Instances". A note states: "Note: Your instances will launch in the US East region." The main section, "Resources by Region", displays a grid of VPC-related resources with their counts and links to view all resources in the region. The resources listed are:

Resource	Count
VPCs	1
Subnets	6
Route Tables	1
Internet Gateways	1
Egress-only Internet Gateways	0
DNAT option sets	1
Elastic IPs	0
Endpoints	0
Endpoint Services	0
NAT Gateways	0
VPC Peering Connections	0
Network ACLs	1
Security Groups	0
Customer Gateways	0
Virtual Private Gateways	0
Site-to-Site VPN Connections	0
Running Instances	0

On the right side of the console, there are sections for "Service Health" (showing Amazon EC2 - US East as "Service is operating normally"), "Settings" (with links for Zones, Console Experiments, and Additional Information), "AWS Network Manager" (with a link to "Get started with Network Manager"), and "Site-to-Site VPN Connections" (with a link to "Create VPN Connection").

Name the first VPC as 'MYVPC1' and choose the IPv4 CIDR block.

The screenshot shows the AWS VPC Management Console interface for creating a new VPC. The 'VPC settings' section is active, showing the following configuration:

- Resources to create:** ☒ VPC only
- Name tag - optional:** MYVPC1
- IPv4 CIDR block:** ☒ IPv4 CIDR manual input
IPv4 CIDR: 10.0.0.0/24
- IPv6 CIDR block:** ☒ No IPv6 CIDR block
- Tenancy:** Default

The 'Tags' section shows a single tag with the key 'Name' and value 'MYVPC1'. At the bottom, there are 'Cancel' and 'Create VPC' buttons.

Similarly create a second VPC and name it as 'MYVPC2'.

The screenshot shows the AWS VPC Management Console interface for creating a second VPC. The 'VPC settings' section is active, showing the following configuration:

- Resources to create:** ☒ VPC only
- Name tag - optional:** MYVPC2
- IPv4 CIDR block:** ☒ IPv4 CIDR manual input
IPv4 CIDR: 10.0.0.0/16
- IPv6 CIDR block:** ☒ No IPv6 CIDR block
- Tenancy:** Default

The 'Tags' section shows a single tag with the key 'Name' and value 'MYVPC2'. At the bottom, there are 'Cancel' and 'Create VPC' buttons.

Now change the region to Oregon.

The screenshot shows the AWS VPC Management Console for the **us-west-2** region. A green banner at the top states: "You successfully created vpc-0dcbfe6673d818d05 / MYVPC2". The main content area displays the details for VPC **vpc-0dcbfe6673d818d05 / MYVPC2**.

Details:

- VPC ID: vpc-0dcbfe6673d818d05
- State: Available
- DNS hostnames: Disabled
- DNS resolution: Enabled
- Main network: vpc-0dcbfe6673d818d05
- IPv6 CIDR: -
- Owner ID: 623332020272

CIDRs:

Address type	CIDR	Network Border Group	Pool
IPv4	120.0.0.0/16	-	-

Regions:

- US East (N. Virginia): us-east-1
- US East (Ohio): us-east-2
- US West (N. California): us-west-1
- US West (Oregon): us-west-2
- Asia Pacific (Mumbai): ap-south-1
- Asia Pacific (Osaka): ap-northeast-3
- Asia Pacific (Seoul): ap-northeast-2
- Asia Pacific (Singapore): ap-southeast-1
- Asia Pacific (Sydney): ap-southeast-2
- Asia Pacific (Tokyo): ap-northeast-1
- Canada (Central): ca-central-1
- Europe (Frankfurt): eu-central-1
- Europe (Ireland): eu-west-1
- Europe (London): eu-west-2
- Europe (Paris): eu-west-3
- Europe (Stockholm): eu-north-1
- South America (São Paulo): sa-east-1

There are 9 Regions that are not enabled for this account:

- Africa (Cape Town): af-south-1
- Asia Pacific (Hong Kong): ap-east-1
- Asia Pacific (Hyderabad): ap-south-2

Here create a new VPC.

The screenshot shows the AWS VPC Management Console for the **us-west-2** region. The **Create VPC** button is highlighted. The **Resources by Region** section shows the following resources:

Resource	Count
VPCs	1
Subnets	4
Route Tables	1
Internet Gateways	1
Egress-only Internet Gateways	0
DHCP option sets	1
Elastic IPs	0
Endpoints	0
Endpoint Services	0
NAT Gateways	0
VPC Peering Connections	0
Network ACLs	1
Security Groups	1
Customer Gateways	0
Virtual Private Gateways	0
Site-to-Site VPN Connections	0
Running Instances	0

Service Health:

- Current Status: Amazon EC2 - US West
- Details: Service is operating normally

Settings:

- Timezone
- Console Experiments

Additional Information:

- VPC Documentation
- All VPC Resources
- Forums
- Report an issue

AWS Network Manager:

- AWS Network Manager provides tools and features to help you manage and monitor your network on AWS. Network Manager makes it easier to perform connectivity management, network monitoring and troubleshooting, IP management, and network security and governance.
- Get started with Network Manager

Site-to-Site VPN Connections:

- Amazon VPC enables you to use your own isolated resources within the AWS Cloud, and then connect those resources directly to your own datacenter using industry-standard encrypted IPsec VPN connections.
- Create VPN Connection

Name it as VPCOregon1.

VPC settings

Resources to create [Info](#)
Create only the VPC resource or the VPC and other networking resources.
☒ VPC only ☐ VPC and more

Name tag - optional [Info](#)
Creates a tag with a key of Name and a value that you specify.
VPCOregon1

IPv4 CIDR block [Info](#)
☒ IPv4 CIDR manual input
☐ IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.0.0.0/24

IPv6 CIDR block [Info](#)
☒ No IPv6 CIDR block
☐ IPAM-allocated IPv6 CIDR block
☐ Amazon-provided IPv6 CIDR block
☐ IPv6 CIDR owned by me

Tenancy [Info](#)
Default

Tags [Info](#)
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: Name Value: VPCOregon1 [Remove](#)

[Add new tag](#)
You can add up to 50 tags.

[Cancel](#) [Create VPC](#)

Switch back to the North Virginia Region.

You successfully created vpc-0c8827dbc574bb5b3 / VPCOregon1

VPC > Your VPCs > vpc-0c8827dbc574bb5b3

vpc-0c8827dbc574bb5b3 / VPCOregon1

Details [Info](#)

VPC ID
vpc-0c8827dbc574bb5b3

State
Available

Tenancy
Default

Default VPC
No

Network Address Usage metrics
Disabled

DHCP options set
dopt-03b456c288503a0c9

IPv4 CIDR
10.0.0.0/24

Route 53 Resolver DNS Firewall rule groups
-

DNS
Disabled

Main route table
rtb-0d8f61c17a9136ac2

IPv6 pool
-

Owner ID
628332020272

CIDRs [Info](#)

Address type	CIDR	Network Border Group	Pool
IPv4	10.0.0.0/24	-	-

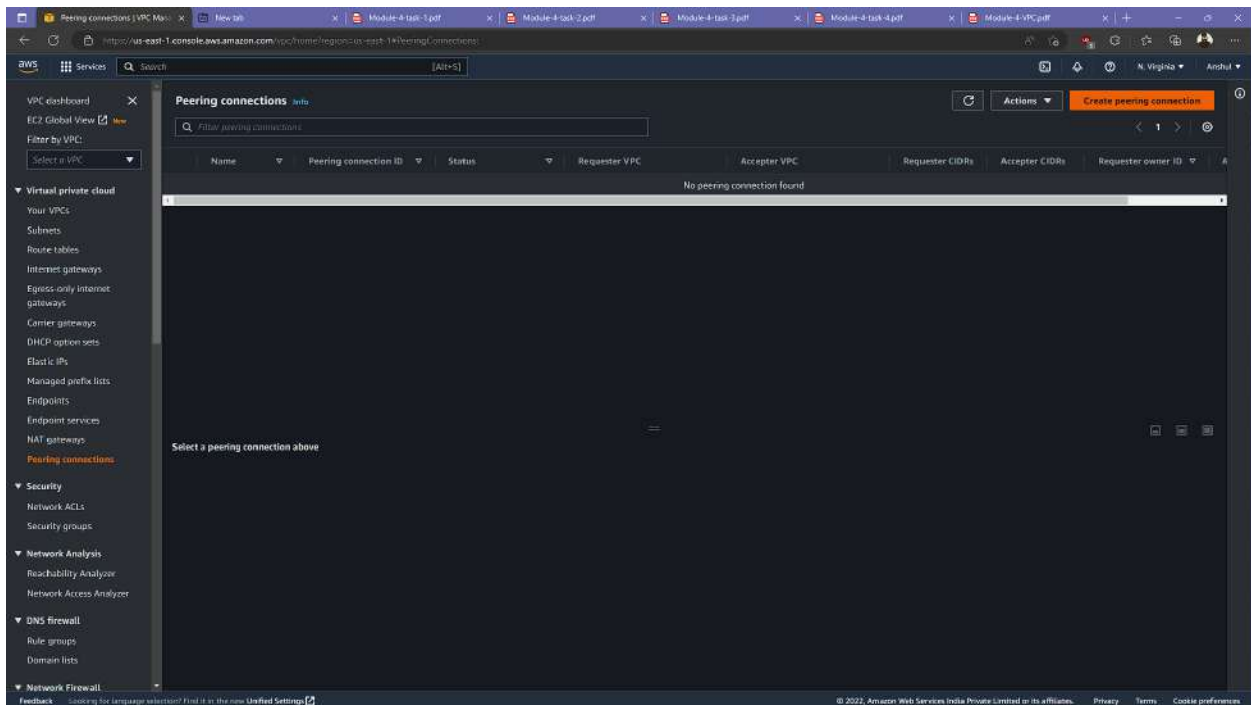
Regions

- US East (N. Virginia) us-east-1
- US East (Ohio) us-east-2
- US West (N. California) us-west-1
- US West (Oregon) us-west-2
- Asia Pacific (Mumbai) ap-south-1
- Asia Pacific (Osaka) ap-northeast-3
- Asia Pacific (Seoul) ap-northeast-2
- Asia Pacific (Singapore) ap-southeast-1
- Asia Pacific (Sydney) ap-southeast-2
- Asia Pacific (Tokyo) ap-northeast-1
- Canada (Central) ca-central-1
- Europe (Frankfurt) eu-central-1
- Europe (Ireland) eu-west-1
- Europe (London) eu-west-2
- Europe (Paris) eu-west-3
- Europe (Stockholm) eu-north-1
- South America (São Paulo) sa-east-1

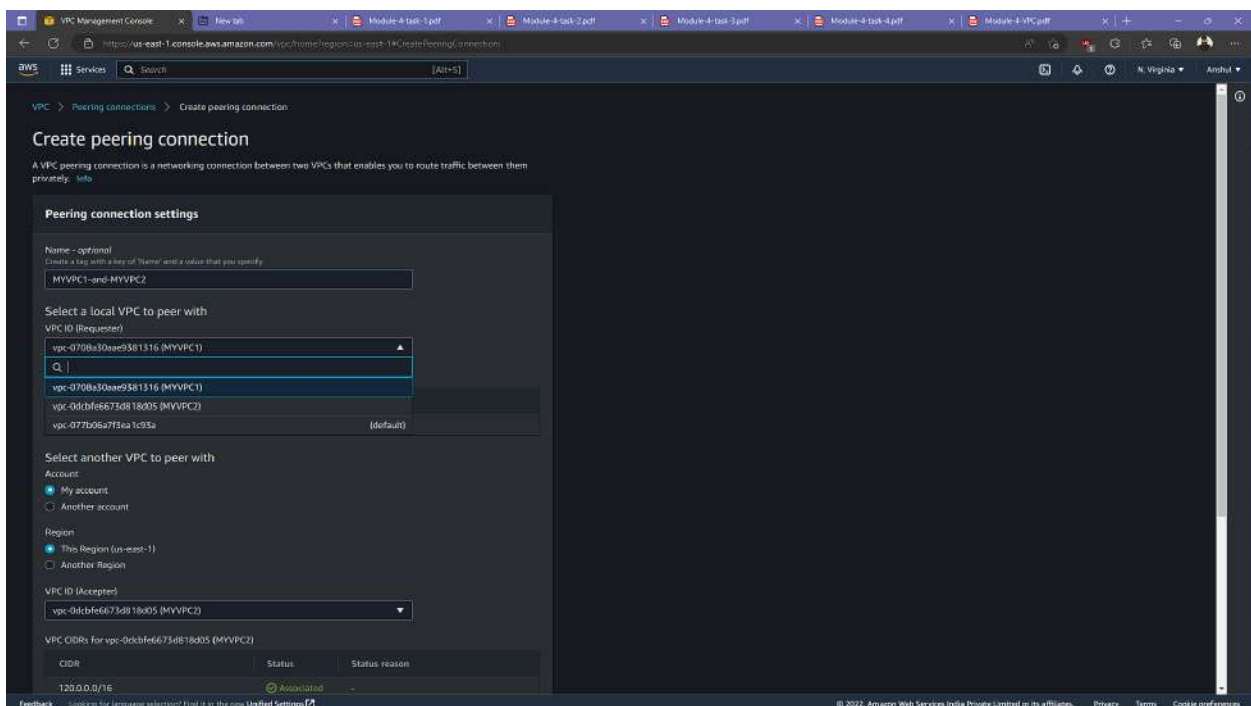
There are 9 Regions that are not enabled for this account.

- Africa (Cape Town) af-south-1
- Asia Pacific (Hong Kong) ap-east-1
- Asia Pacific (Hyderabad) ap-south-2

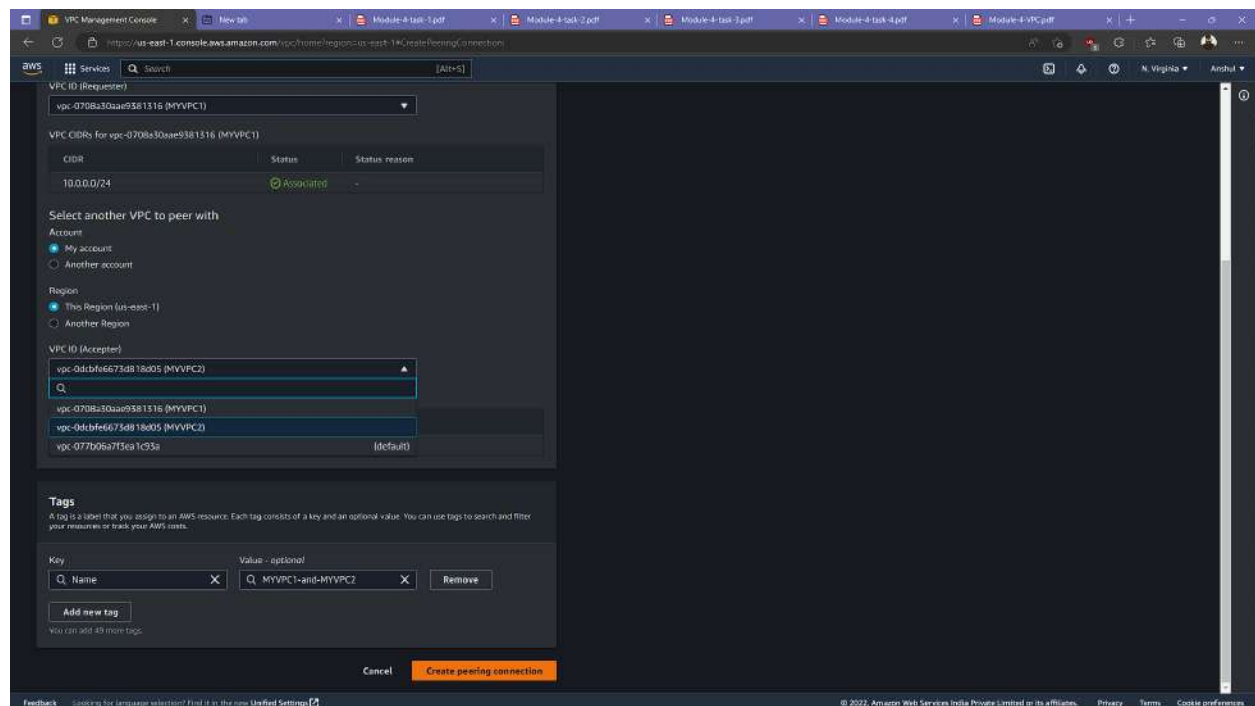
Select 'Peering Connection' and select 'Create peering connection'.



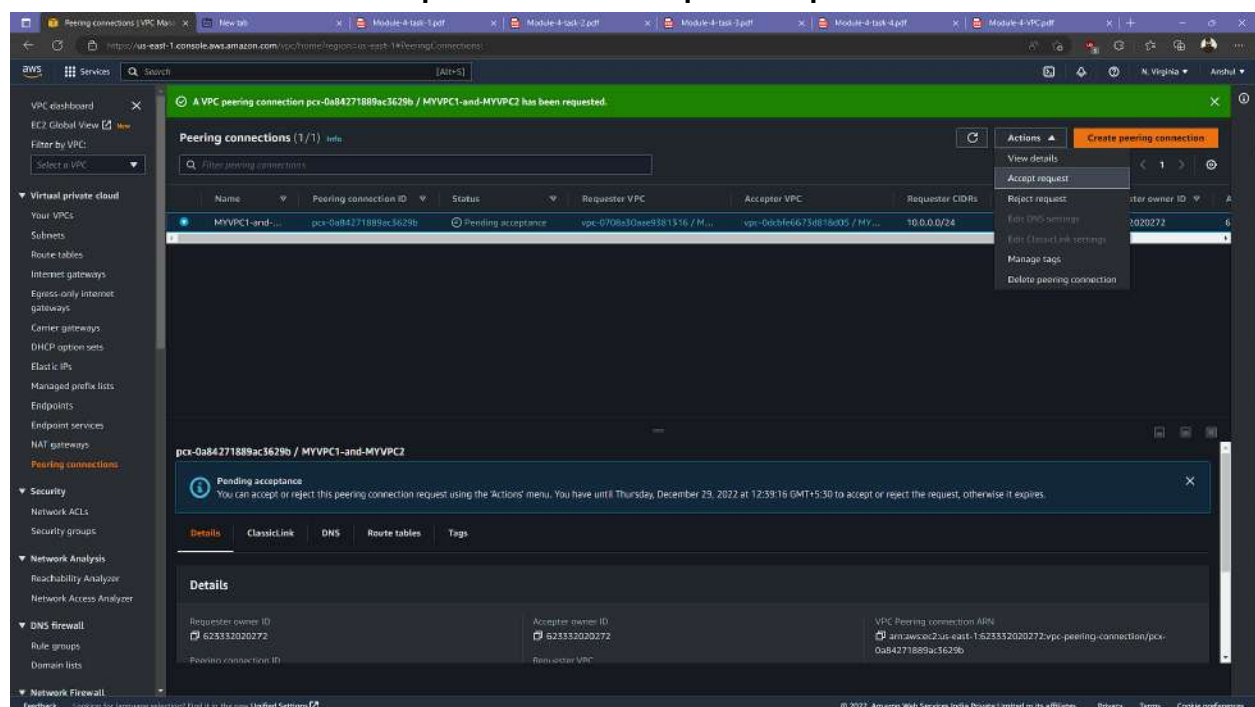
First let's peer at MYVPC1 and MYVPC2. Select any one of the VPC first. We chose 'MYVPC1'.



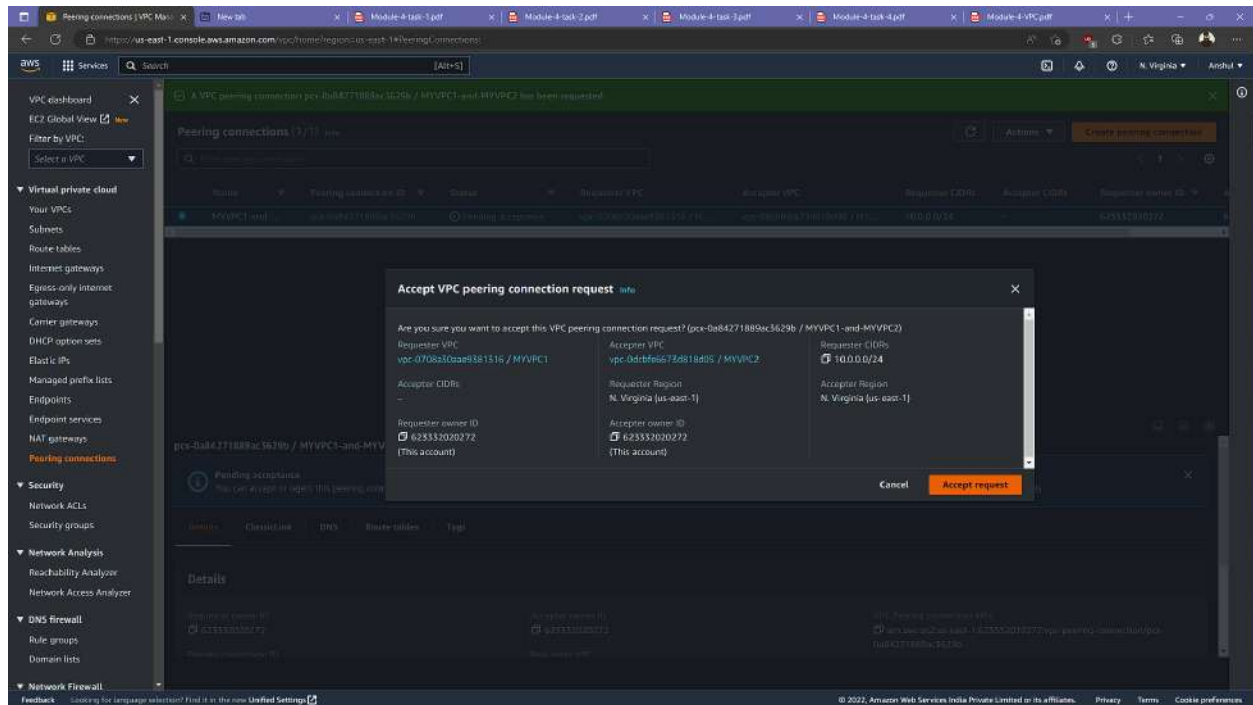
While selecting another VPC as another VPC is from the same region and same account, select respective fields.
Then choose 'MYVPC2' with which we need to peer.



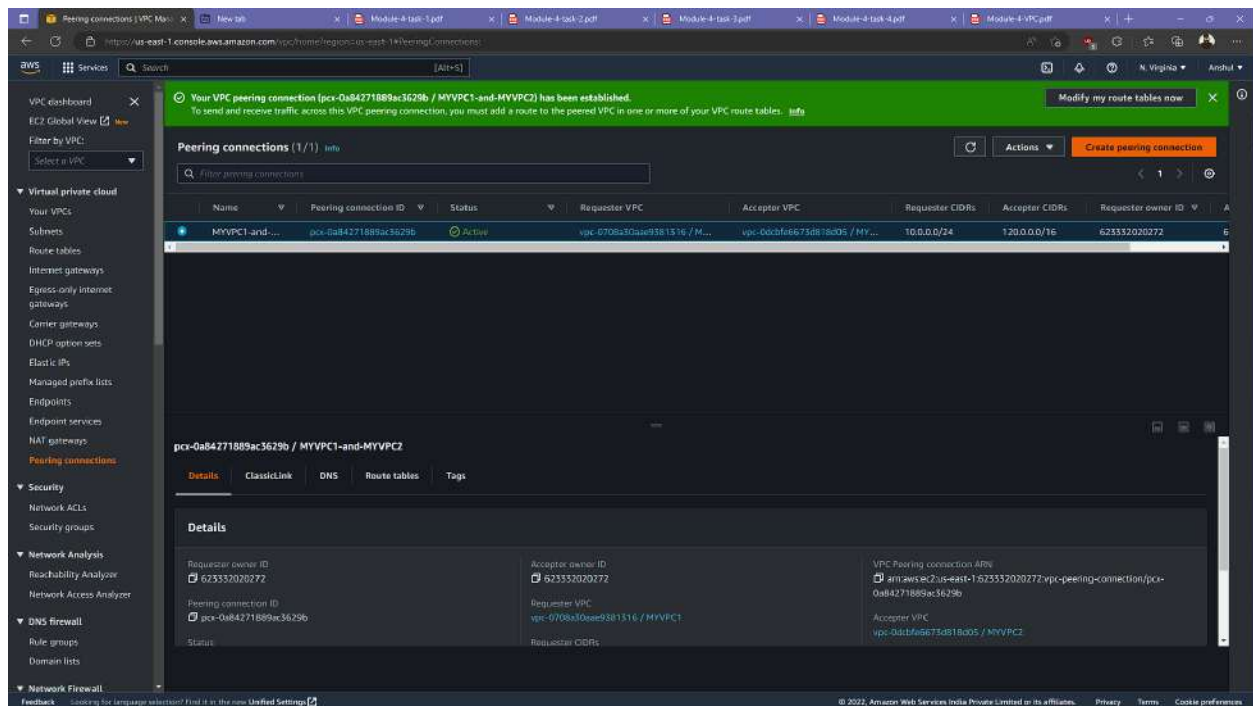
Check for peering requests in peering connections. Select the request and from actions drop down menu accept the request.



As we can see, MYVPC1 and MYVPC2 peering connection will be made after accepting this request.



Now select 'Create Peering connection'. Now we will peer connection between Oregon1 and MYVPC2.



Let's send a peering request from MYVPC2 to Oregon1. First select MYVPC2. Then while selecting another VPC, as another VPC is from the same account but another region so choose respective fields.

Create peering connection

A VPC peering connection is a networking connection between two VPCs that enables you to route traffic between them privately. [Info](#)

Peering connection settings

Name - optional
Create a tag with a key of 'Name' and a value that you specify.
MYVPC2-and-VPCOregon1

Select a local VPC to peer with

VPC ID (Requester)
vpc-0dcbf6675d818d05 (MYVPC2)

VPC CIDRs for vpc-0dcbf6675d818d05 (MYVPC2)

CIDR	Status	Status reason
120.0.0.0/16	Associated	

Select another VPC to peer with

Account
☒ My account
☐ Another account

Region
☐ This Region (us-east-1)
☒ Another Region
Select a region

VPC ID (Accepter)
VPC ID

Tags

Feedback [Looking for language selection? Find it in the new Unified Settings](#)

© 2022, Amazon Web Services India Private Limited or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

Select another region in which we got our another VPC. In this case it's the Oregon region.

Now we will need the VPC ID of the VPC which is in the Oregon region.

MYVPC2-and-VPCOregon1

Q

- US East (Ohio) (us-east-2)
- US West (N. California) (us-west-1)
- US West (Oregon) (us-west-2)
- Africa (Cape Town) (af-south-1)
- Asia Pacific (Hong Kong) (ap-east-1)
- Asia Pacific (Hyderabad) (ap-south-2)
- Asia Pacific (Jakarta) (ap-southeast-3)
- Asia Pacific (Mumbai) (ap-south-1)
- Asia Pacific (Osaka) (ap-northeast-3)
- Asia Pacific (Seoul) (ap-northeast-2)
- Asia Pacific (Singapore) (ap-southeast-1)
- Asia Pacific (Sydney) (ap-southeast-2)
- Asia Pacific (Tokyo) (ap-northeast-1)
- Canada (Central) (ca-central-1)

Select a region

VPC ID (Accepter)
VPC ID

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 MYVPC2-and-VPCOregon1 X Remove

Add new tag
You can add 49 more tags.

Cancel Create peering connection

Feedback [Looking for language selection? Find it in the new Unified Settings](#)

© 2022, Amazon Web Services India Private Limited or its affiliates. [Privacy](#) [Terms](#) [Cookie preferences](#)

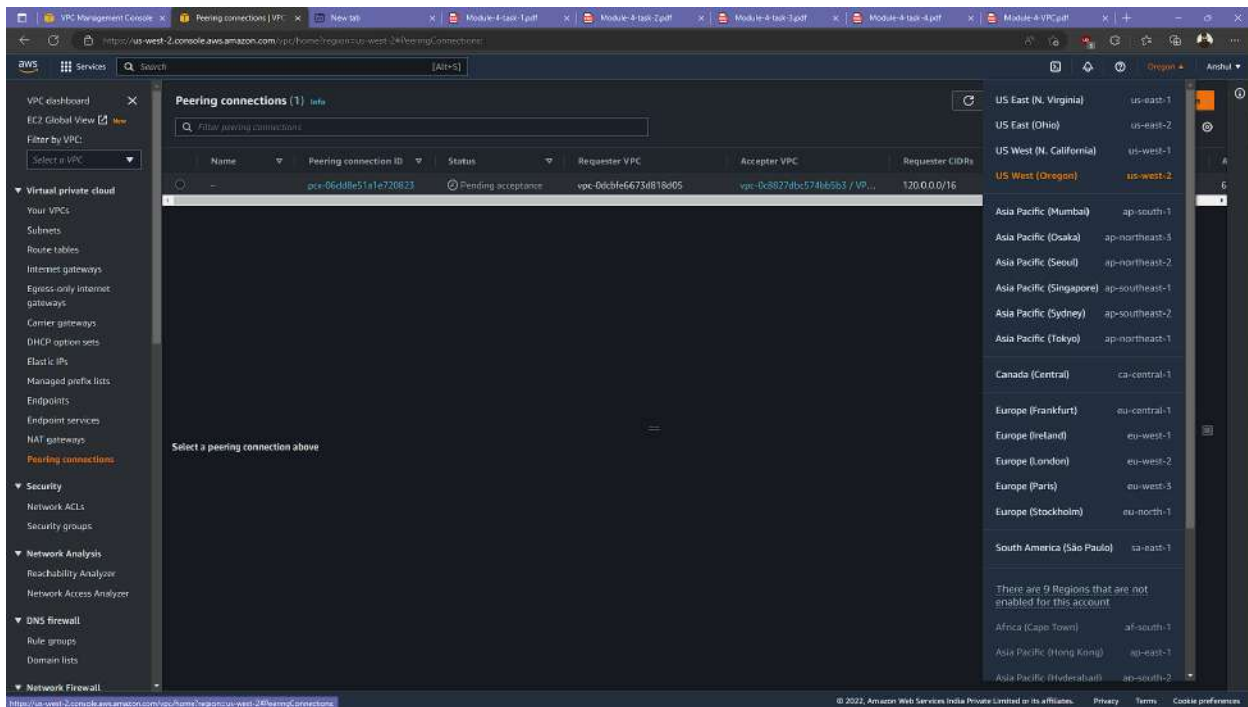
Select VPC of oregon region go in details and copy the VPC ID.

The screenshot shows the AWS VPC Management Console. On the left, there's a navigation menu with options like 'Virtual private cloud', 'Subnets', 'Route tables', etc. The main area displays 'Your VPCs (1/2)'. A table lists VPCs with columns: Name, VPC ID, State, IPv4 CIDR, IPv6 CIDR, DHCP option set, Main route table, and Main network ACL. The first VPC is 'VPCOregon1' with ID 'vpc-0c8827dbc574bb5b3' and state 'Available'. Below the table, the details for 'vpc-0c8827dbc574bb5b3 / VPCOregon1' are shown. The 'Details' tab is active, displaying various settings: VPC ID, State (Available), DNS hostnames (Disabled), DNS resolution (Enabled), Tenancy (Default), DHCP option set (default-03b456c2d8305...), Main route table (rtb-0d461c17d9136ac2), Default VPC (No), IPv4 CIDR (10.0.0.0/24), IPv6 pool, Network Address Usage metrics (Disabled), and Owner ID (625332020272).

Paste it in the VPC ID credentials field for selecting another VPC for peering connection.

The screenshot shows the 'Create peering connection' wizard in the AWS VPC Management Console. The title is 'MYVPC2-and-VPCOregon1'. The first step is 'Select a local VPC to peer with'. The 'VPC ID (Requester)' is 'vpc-d4db66673d818d05 (MYVPC2)'. Below this, the 'VPC CIDRs for vpc-d4db66673d818d05 (MYVPC2)' are listed: '120.0.0.0/16' with status 'Associated'. The second step is 'Select another VPC to peer with'. The 'Account' is 'My account'. The 'Region' is 'US West (Oregon) [us-west-2]'. The 'VPC ID (Accepter)' is 'vpc-0c8827dbc574bb5b3'. At the bottom, there's a 'Tags' section with a table for adding tags. The table has columns for 'Key' and 'Value - optional'. A tag 'MYVPC2-and-VPCOregon1' is already added. At the bottom right, there are 'Cancel' and 'Create peering connection' buttons.

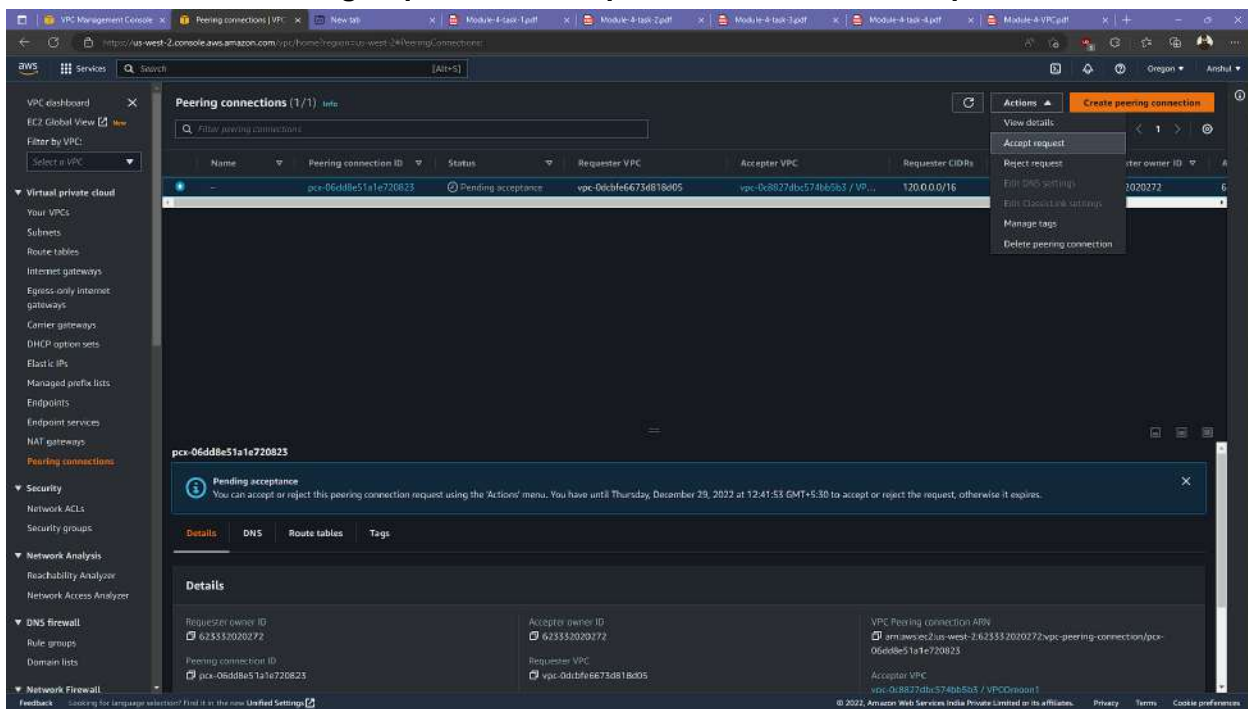
Switch to the Oregon region to check with VPC Peering requests.



The screenshot shows the AWS VPC console interface. The left sidebar contains navigation links for VPC dashboard, EC2 Global View, and various VPC resources. The main content area displays a table of peering connections. The table has columns for Name, Peering connection ID, Status, Requester VPC, Acceptor VPC, and Requester CIDRs. A single connection is listed with ID pcx-06d8e51a1e720823, status Pending acceptance, requester vpc-0dcbfe6673d818d05, and acceptor vpc-0c8827dbc574b65b3 / VP... The right sidebar shows a list of regions, with Oregon (us-west-2) selected.

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDRs
-	pcx-06d8e51a1e720823	Pending acceptance	vpc-0dcbfe6673d818d05	vpc-0c8827dbc574b65b3 / VP...	120.0.0.0/16

Select the Peering request and accept it from the actions drop down menu.



The screenshot shows the AWS VPC console interface with the 'Actions' dropdown menu open for the peering connection pcx-06d8e51a1e720823. The menu options include View details, Accept request, Reject request, Edit DNS settings, Edit ClassicLink settings, Manage tags, and Delete peering connection. The 'Accept request' option is highlighted. Below the table, a notification banner states: 'Pending acceptance. You can accept or reject this peering connection request using the 'Actions' menu. You have until Thursday, December 29, 2022 at 12:41:53 GMT+5:30 to accept or reject the request, otherwise it expires.' The 'Details' tab is selected, showing information about the requester and acceptor VPCs.

Name	Peering connection ID	Status	Requester VPC	Acceptor VPC	Requester CIDRs
-	pcx-06d8e51a1e720823	Pending acceptance	vpc-0dcbfe6673d818d05	vpc-0c8827dbc574b65b3 / VP...	120.0.0.0/16

Details

Requester owner ID	Acceptor owner ID	VPC Peering connection ARN
623332020272	623332020272	arn:aws:ec2:us-west-2:623332020272:vpc-peering-connection/pcx-06d8e51a1e720823
Peering connection ID	Requester VPC	Acceptor VPC
pcx-06d8e51a1e720823	vpc-0dcbfe6673d818d05	vpc-0c8827dbc574b65b3 / VPCOnon1

We can see details tha MYVPC2 and VPCOregon1 are being peered.

The screenshot displays the AWS Management Console interface for VPC peering connections. A modal dialog titled "Accept VPC peering connection request" is open, showing details for a pending request. The request is from VPC-0dcbf66750818d05 (Requester VPC) to VPC-0e88270c574065d5 / VPCOregon1 (Accepter VPC). The requester is in the us-east-1 region, and the accepter is in the us-west-2 region. Both are owned by the same account (623332020272). The modal includes "Cancel" and "Accept request" buttons. In the background, the "Peering connections" list shows the pending connection with a status of "Pending acceptance". Below the modal, the "Details" section for the connection provides further information, including the requester and accepter VPC IDs, their respective regions, and the owner's account ID.

Requester VPC	Requester Region	Requester Owner ID
VPC-0dcbf66750818d05	us-east-1	623332020272

Accepter VPC	Accepter Region	Accepter Owner ID
VPC-0e88270c574065d5 / VPCOregon1	us-west-2	623332020272