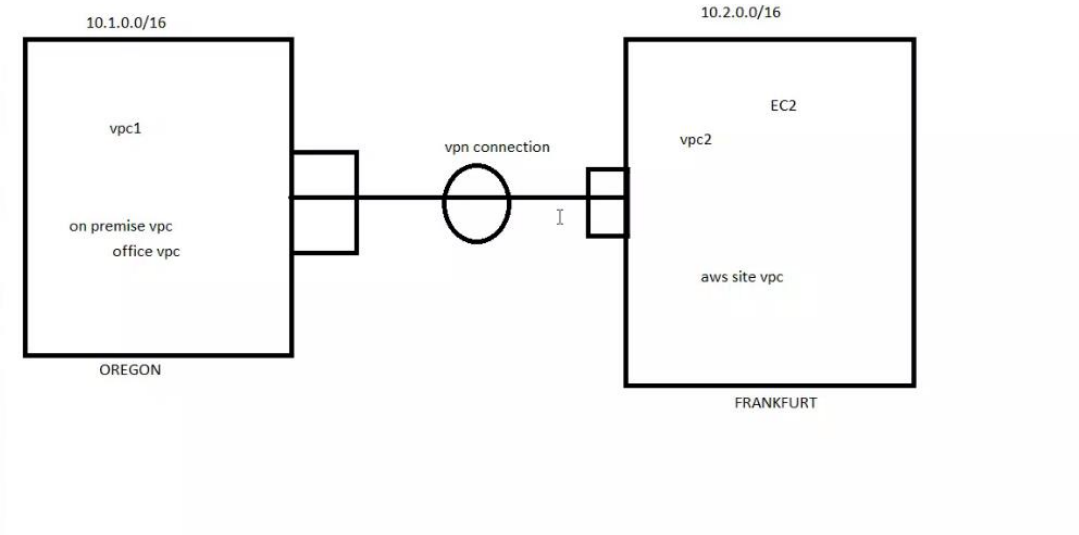
NEERAJ PANWAR (B7-CEQ545)

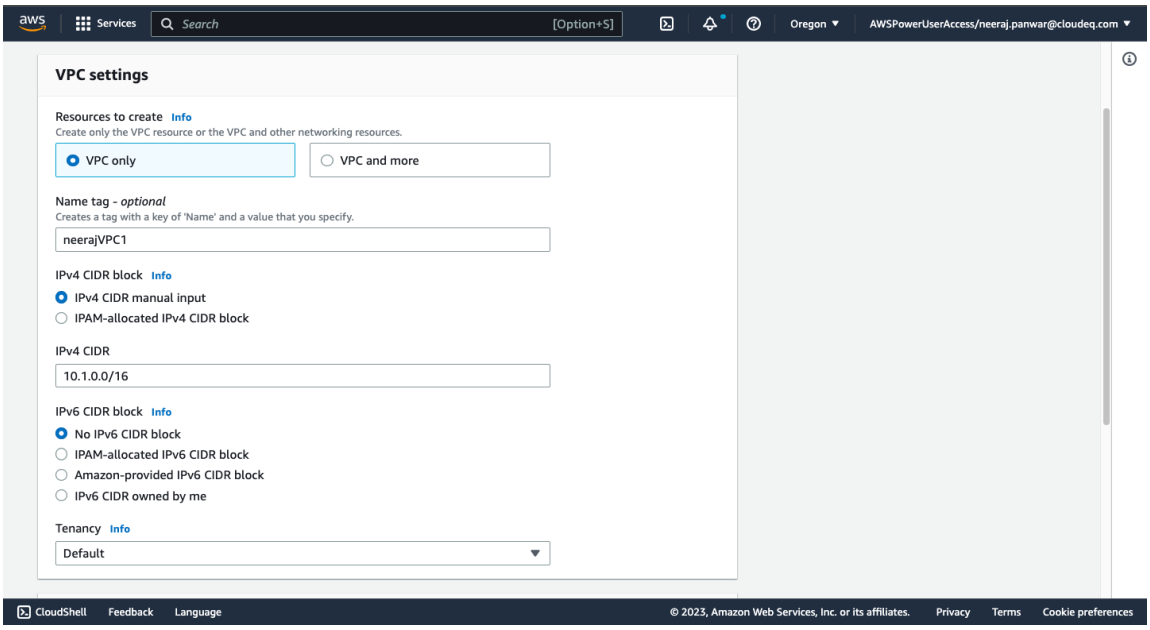
AWS SITE TO SITE VPN*:*

AWS Site-to-Site VPN is a way for companies to connect their office or data center to their resources on Amazon Web Services (AWS) securely. It's like a secret tunnel that allows data to travel between their own network and their resources on AWS without being intercepted by anyone else. This is helpful for businesses that want to use cloud resources like servers and databases, but still need to communicate with their own network in a secure way.

First create two **VPC** in different-different region:



First VPC:


aws
Services
Search
[Option+S]
Oregon
AWSPowerUserAccess/neeraj.panwar@cloudeq.com
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
Creates a tag with a key of 'Name' and a value that you specify.
neerajVPC1
IPv4 CIDR block Info
IPv4 CIDR manual input
IPAM-allocated IPv4 CIDR block
IPv4 CIDR
10.1.0.0/16
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
CloudShell
Feedback
Language
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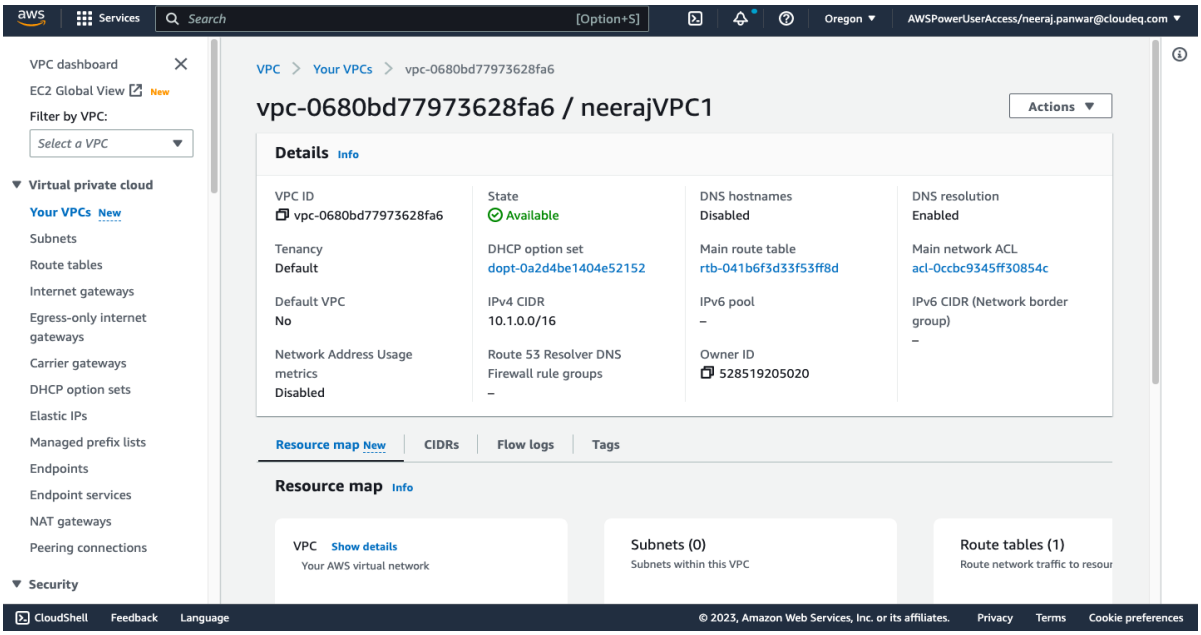
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VPC dashboard
EC2 Global View New
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs New
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections
Security
VPC > Your VPCs > vpc-0680bd77973628fa6
vpc-0680bd77973628fa6 / neerajVPC1
Actions
Details Info
VPC ID
vpc-0680bd77973628fa6
State
Available
DNS hostnames
Disabled
DNS resolution
Enabled
Tenancy
Default
DHCP option set
dopt-0a2d4be1404e52152
Main route table
rtb-041b6f3d33f53ff8d
Main network ACL
acl-0ccbc9345ff30854c
Default VPC
No
IPv4 CIDR
10.1.0.0/16
IPv6 pool
–
IPv6 CIDR (Network border group)
–
Network Address Usage metrics
Disabled
Route 53 Resolver DNS Firewall rule groups
–
Owner ID
528519205020
Resource map New
CIDRs
Flow logs
Tags
Resource map Info
VPC Show details
Your AWS virtual network
Subnets (0)
Subnets within this VPC
Route tables (1)
Route network traffic to resour
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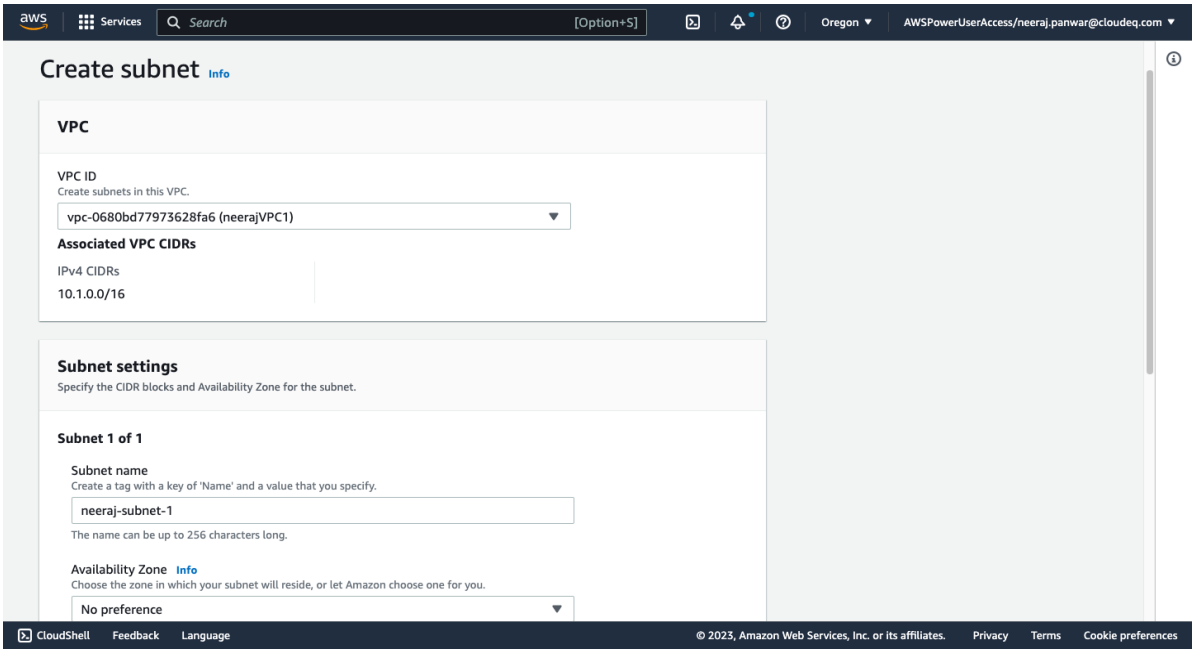
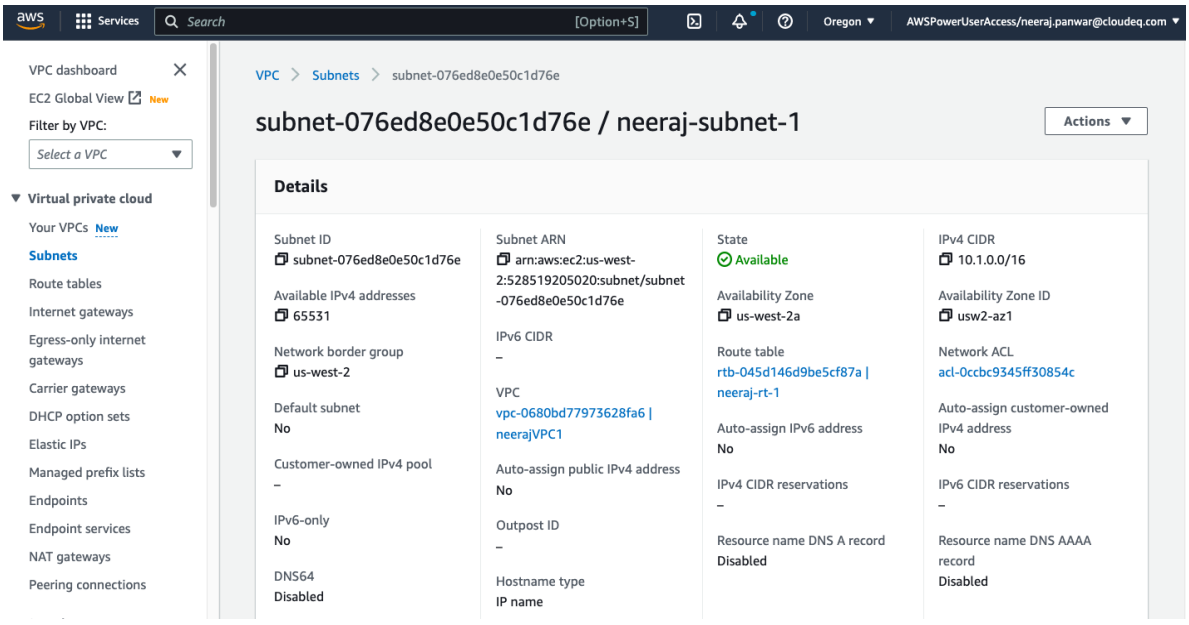
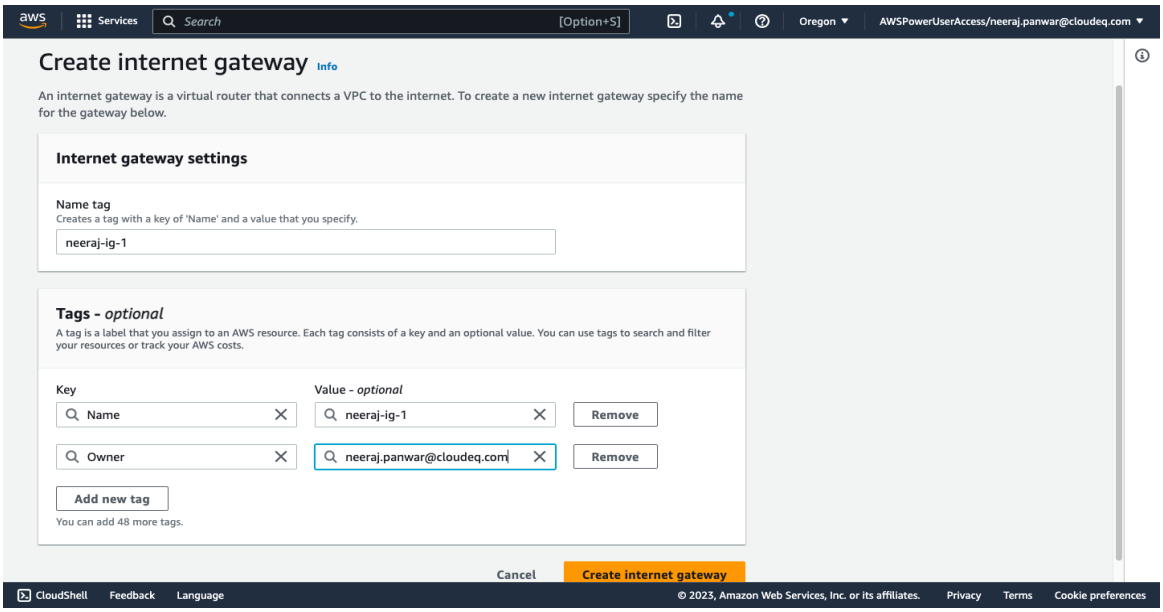
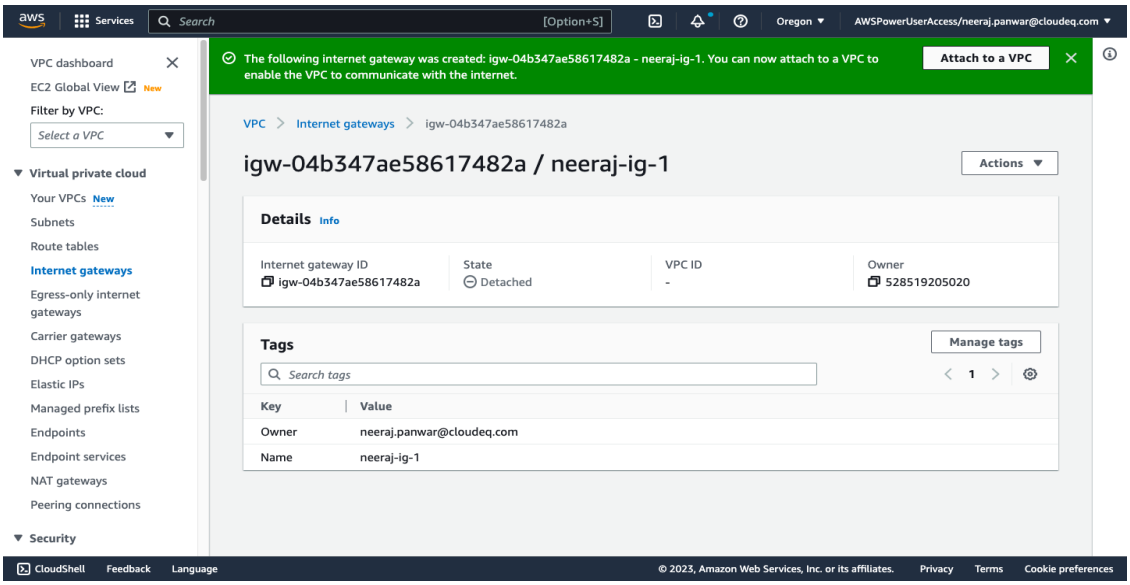
Create Subnet:



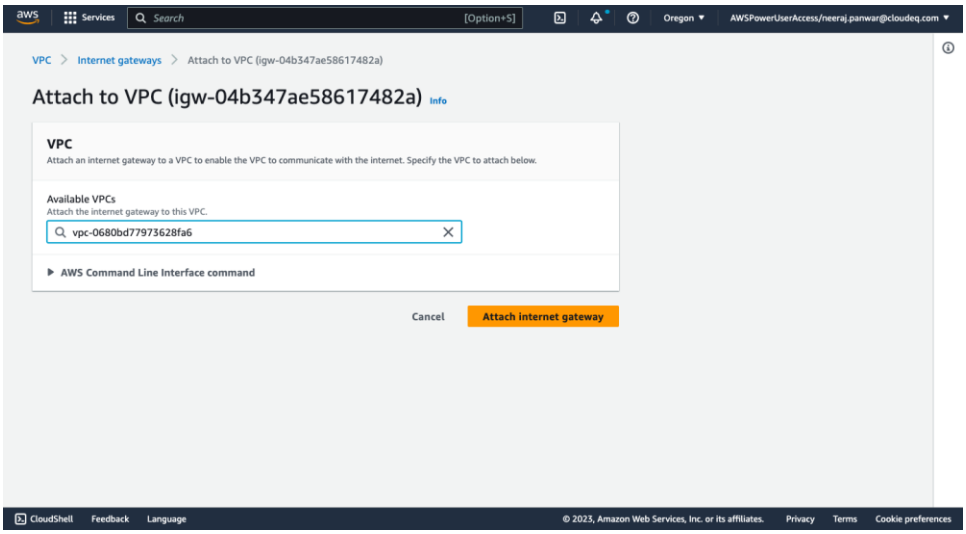


Create Internet Gateway:

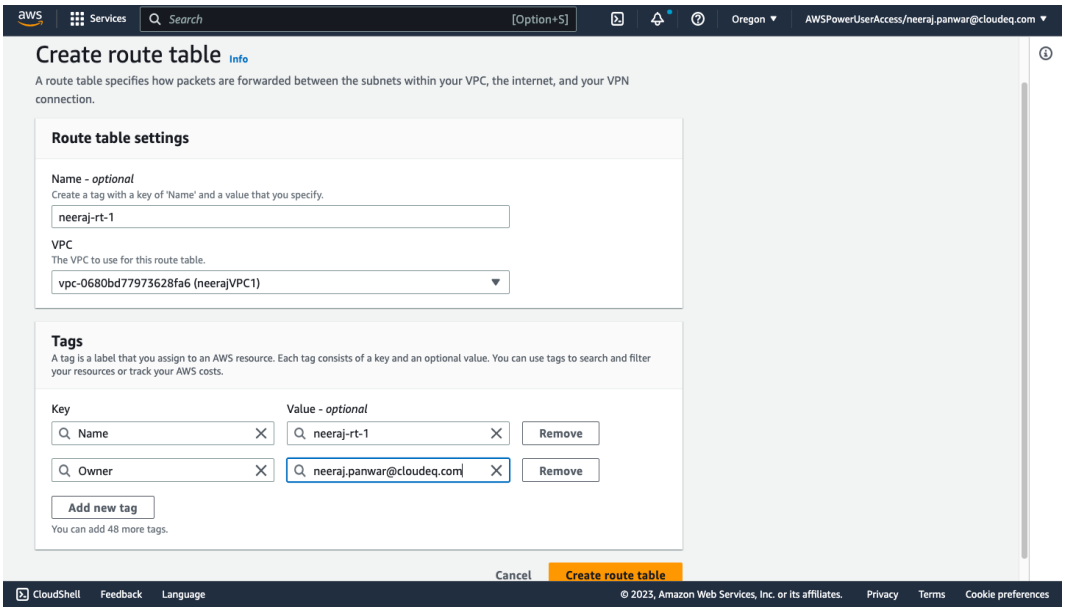


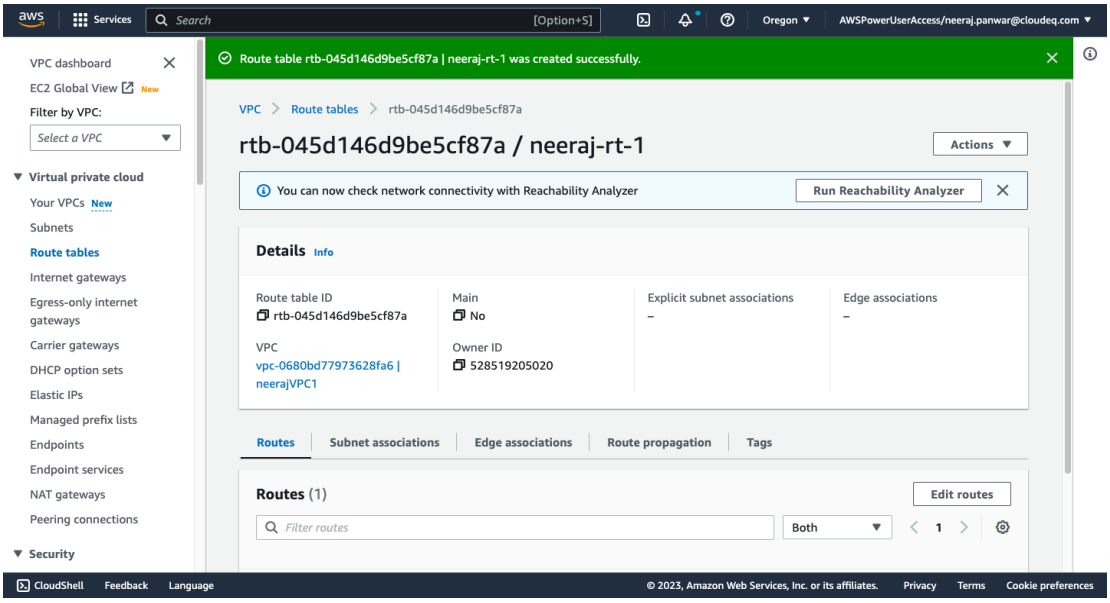


Attach it to VPC:



Create Route Table:

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VPC dashboard
EC2 Global View
New
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs
New
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections
Security
Route table rtb-045d146d9be5cf87a | neeraj-rt-1 was created successfully.
VPC
Route tables
rtb-045d146d9be5cf87a
rtb-045d146d9be5cf87a / neeraj-rt-1
Actions
You can now check network connectivity with Reachability Analyzer
Run Reachability Analyzer
Details
Info
Route table ID
rtb-045d146d9be5cf87a
Main
No
Explicit subnet associations
–
Edge associations
–
VPC
vpc-0680bd77973628fa6 | neerajVPC1
Owner ID
528519205020
Routes
Subnet associations
Edge associations
Route propagation
Tags
Routes (1)
Edit routes
Filter routes
Both
1
CloudShell
Feedback
Language
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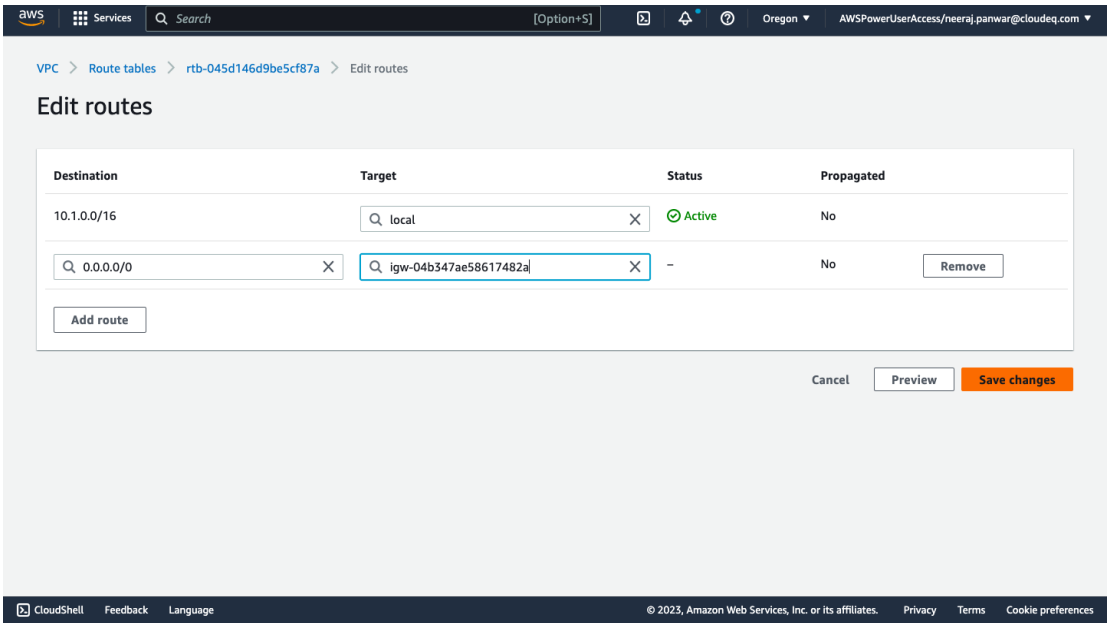
Services
Search
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Oregon
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VPC
Route tables
rtb-045d146d9be5cf87a
Edit routes
Edit routes
Destination
Target
Status
Propagated
10.1.0.0/16
local
Active
No
0.0.0.0/0
igw-04b347ae58617482a
–
No
Remove
Add route
Cancel
Preview
Save changes
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Feedback
Language
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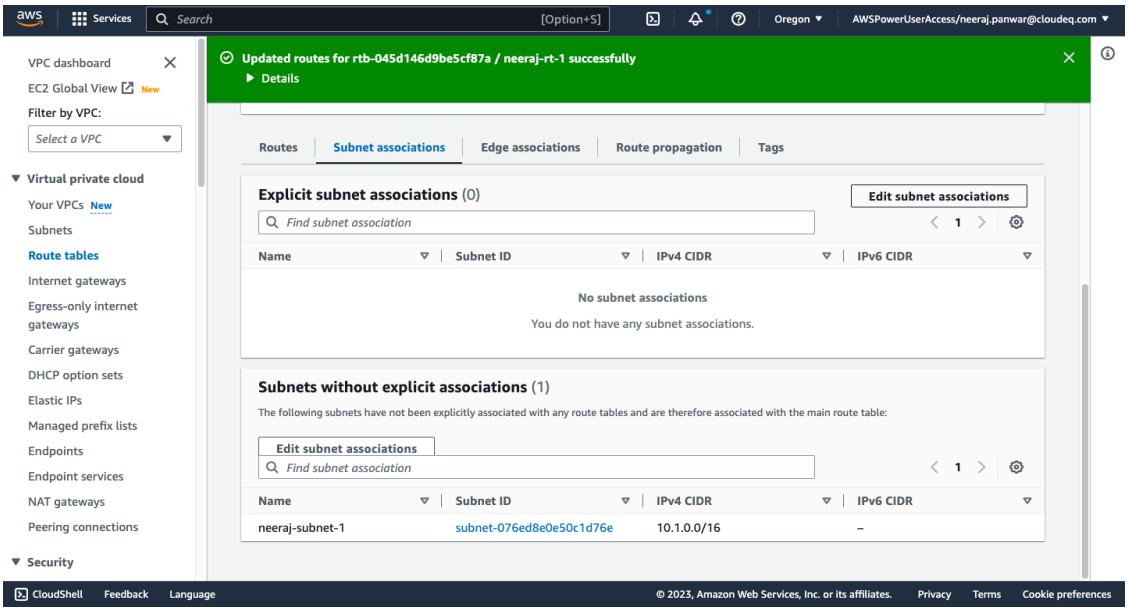
Services
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Oregon
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VPC dashboard
EC2 Global View
New
Filter by VPC:
Select a VPC
Virtual private cloud
Your VPCs
New
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections
Security
Updated routes for rtb-045d146d9be5cf87a / neeraj-rt-1 successfully
Details
Routes
Subnet associations
Edge associations
Route propagation
Tags
Explicit subnet associations (0)
Edit subnet associations
Find subnet association
Name
Subnet ID
IPv4 CIDR
IPv6 CIDR
No subnet associations
You do not have any subnet associations.
Subnets without explicit associations (1)
The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:
Edit subnet associations
Find subnet association
Name
Subnet ID
IPv4 CIDR
IPv6 CIDR
neeraj-subnet-1
subnet-076ed8e0e50c1d76e
10.1.0.0/16
–
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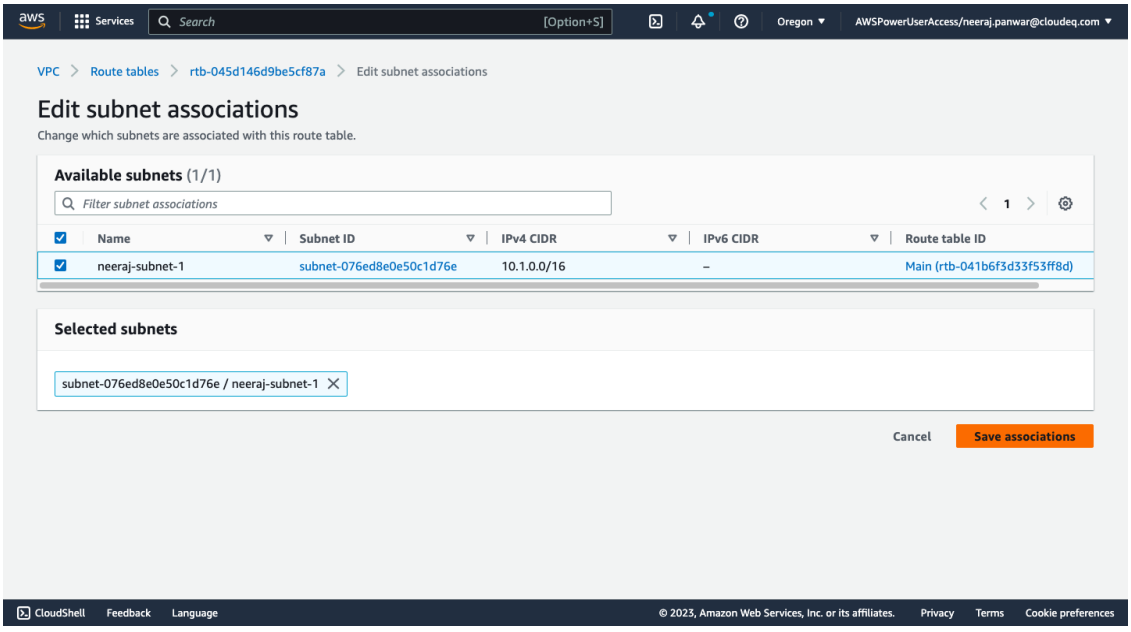
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VPC
Route tables
rtb-045d146d9be5cf87a
Edit subnet associations
Edit subnet associations
Change which subnets are associated with this route table.
Available subnets (1/1)
Filter subnet associations
Name
Subnet ID
IPv4 CIDR
IPv6 CIDR
Route table ID
neeraj-subnet-1
subnet-076ed8e0e50c1d76e
10.1.0.0/16
–
Main (rtb-041b6f3d33f53ff8d)
Selected subnets
subnet-076ed8e0e50c1d76e / neeraj-subnet-1
Cancel
Save associations
CloudShell
Feedback
Language
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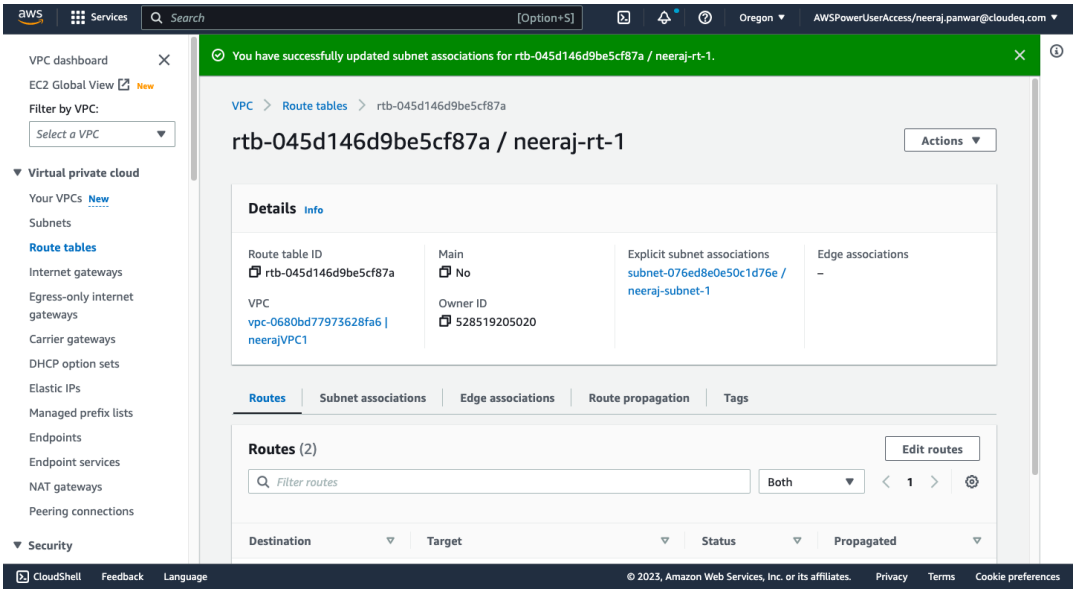
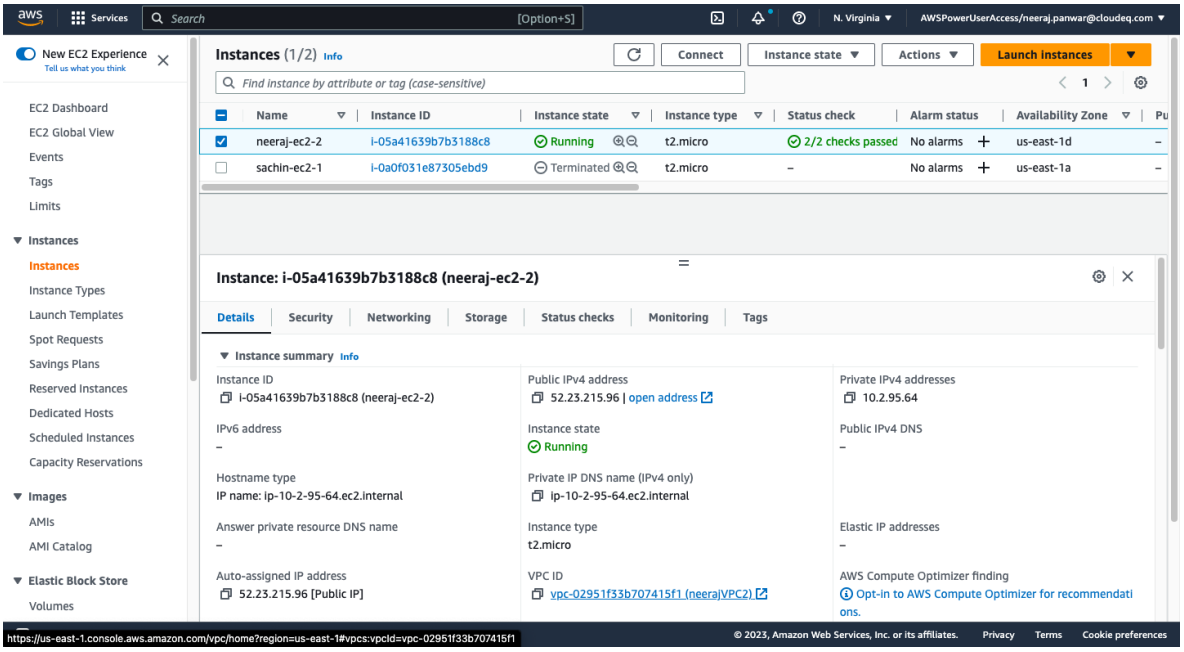
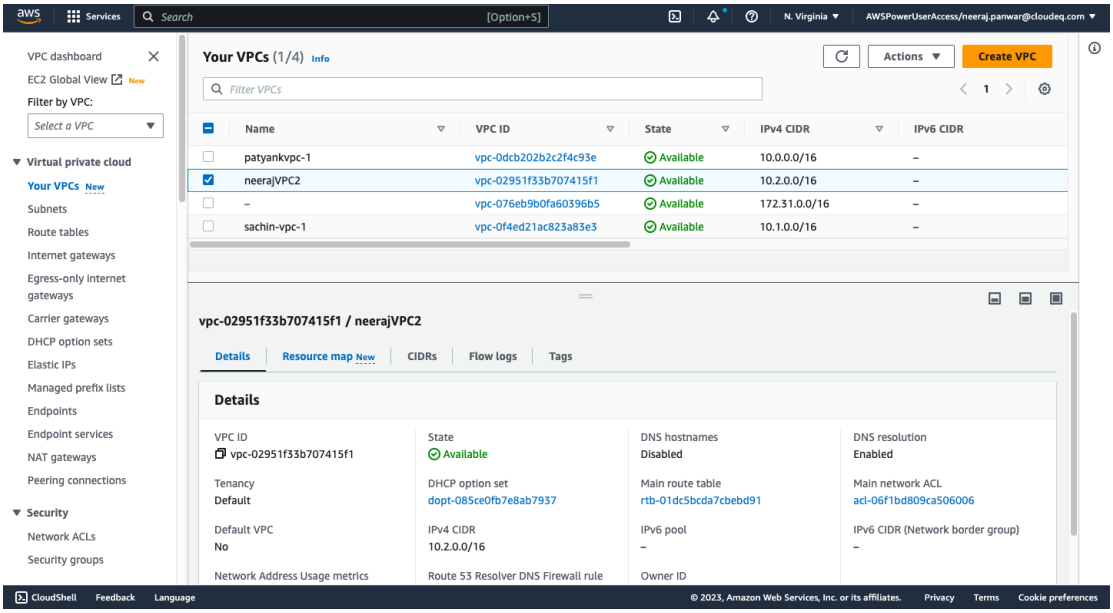
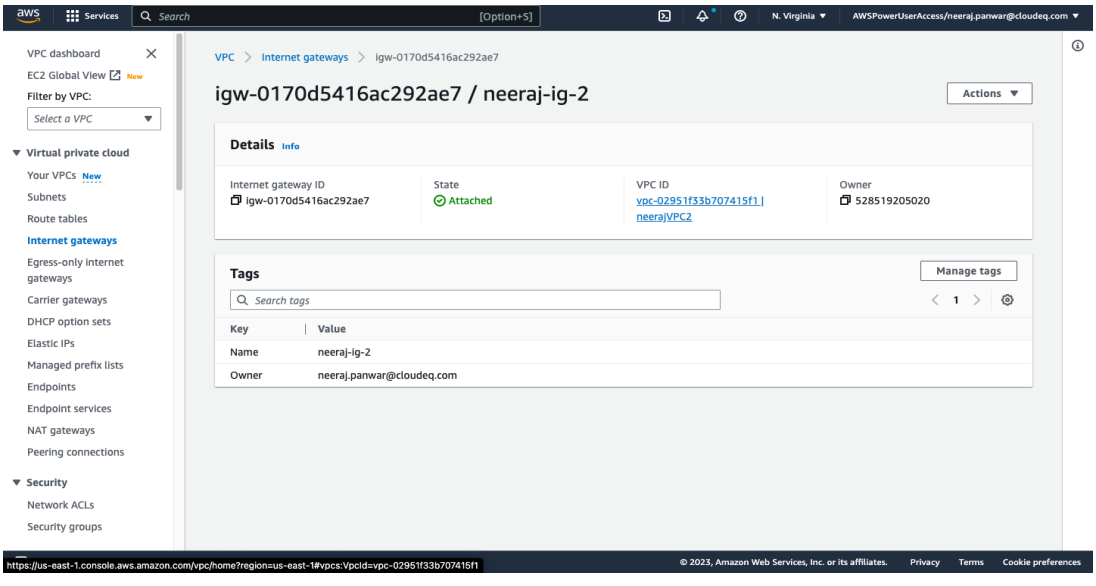


Create EC2 Instance and Attach to VPC:



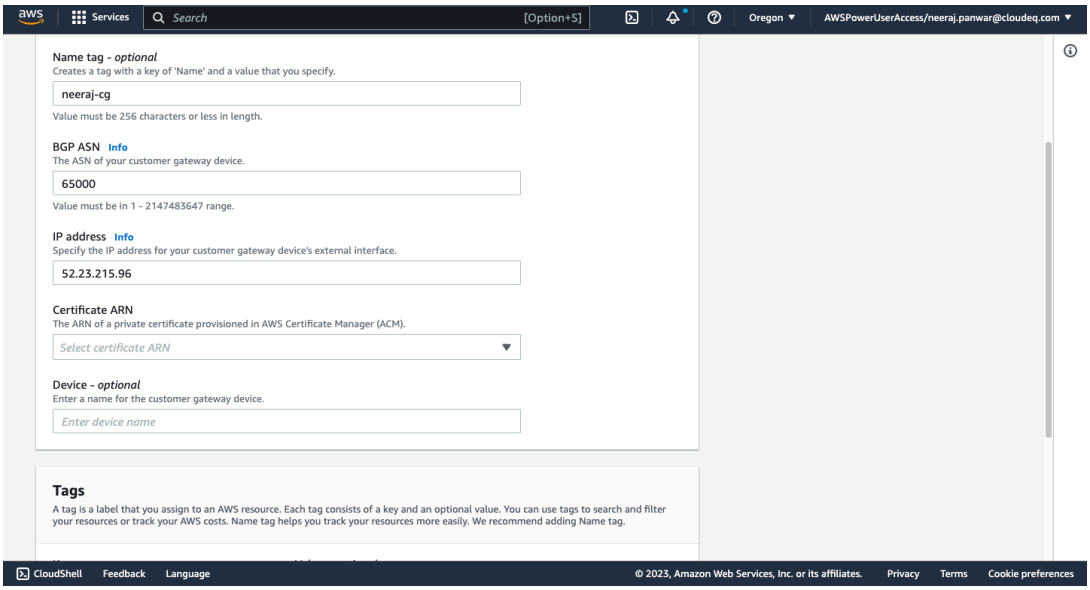
Create Second VPC:

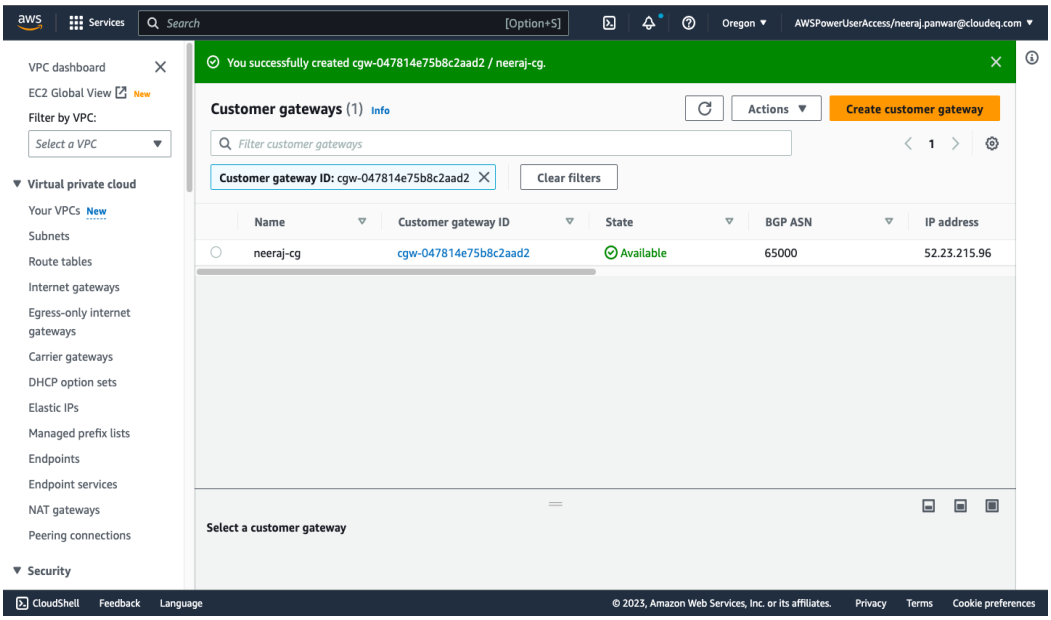




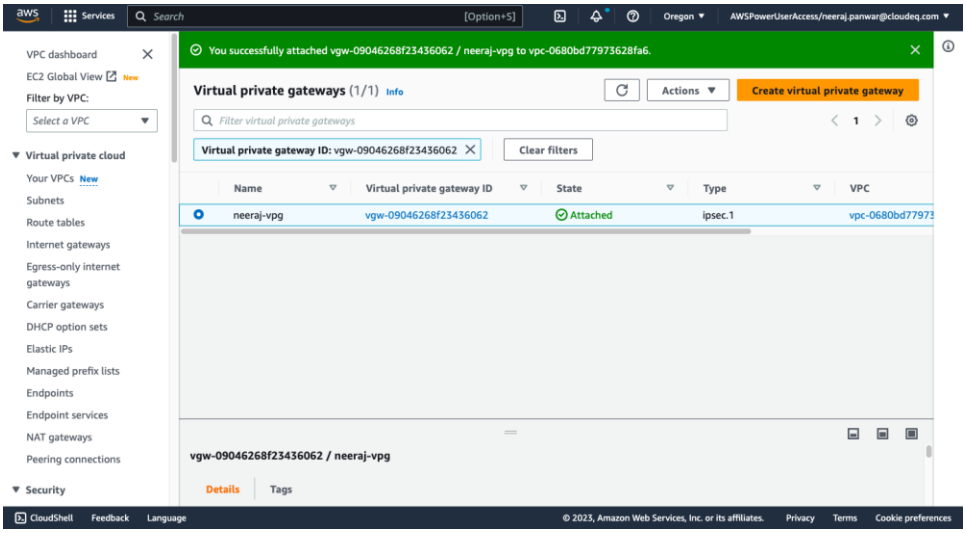
Create Site to site VPN

Create Customer Gateway:

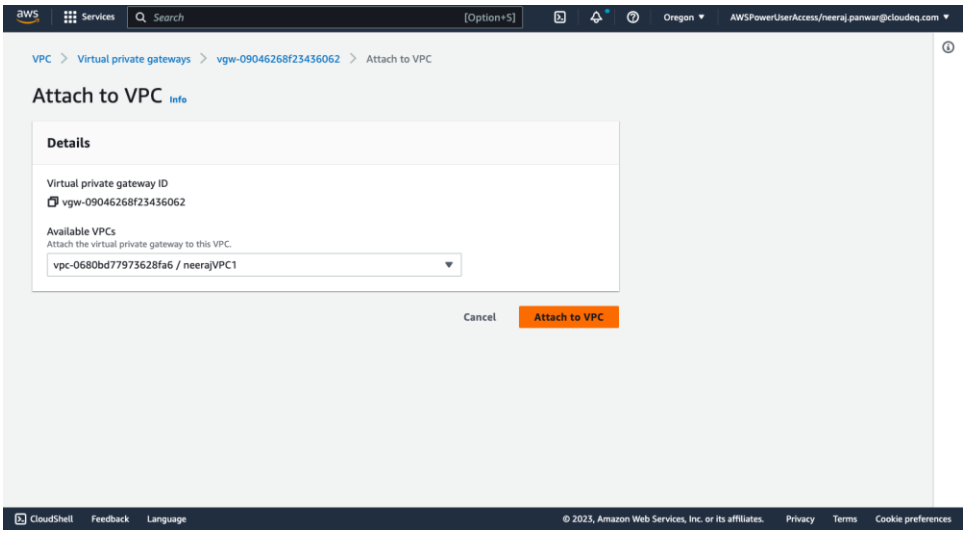




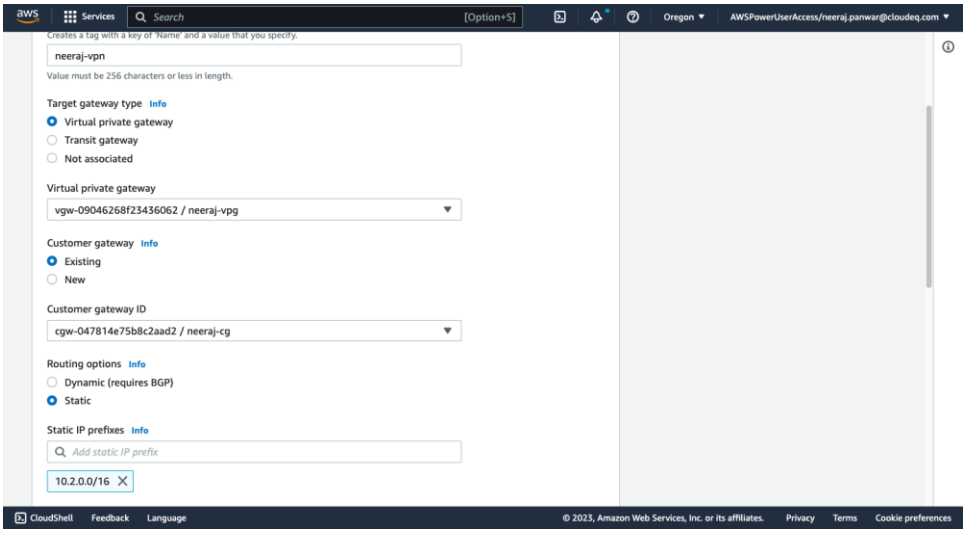
Create Virtual Private Gateway:

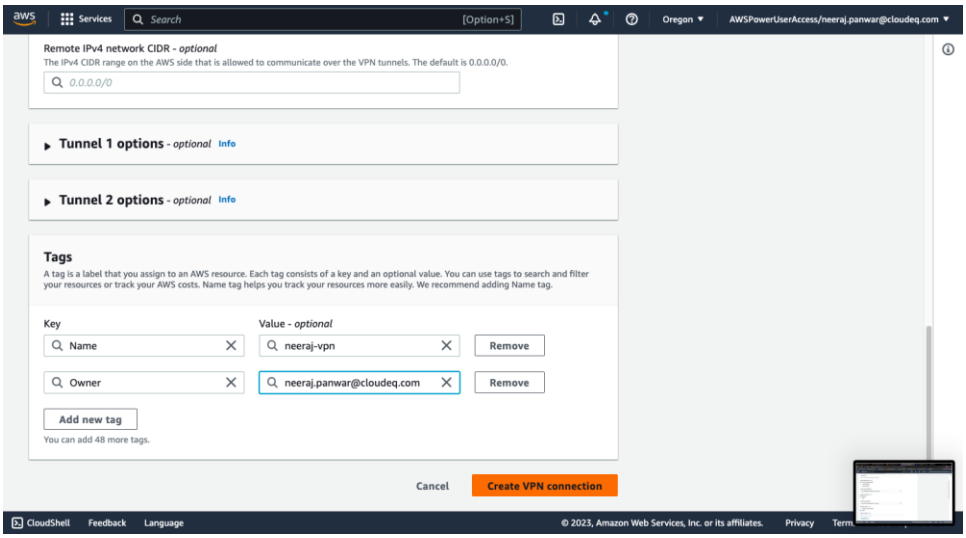


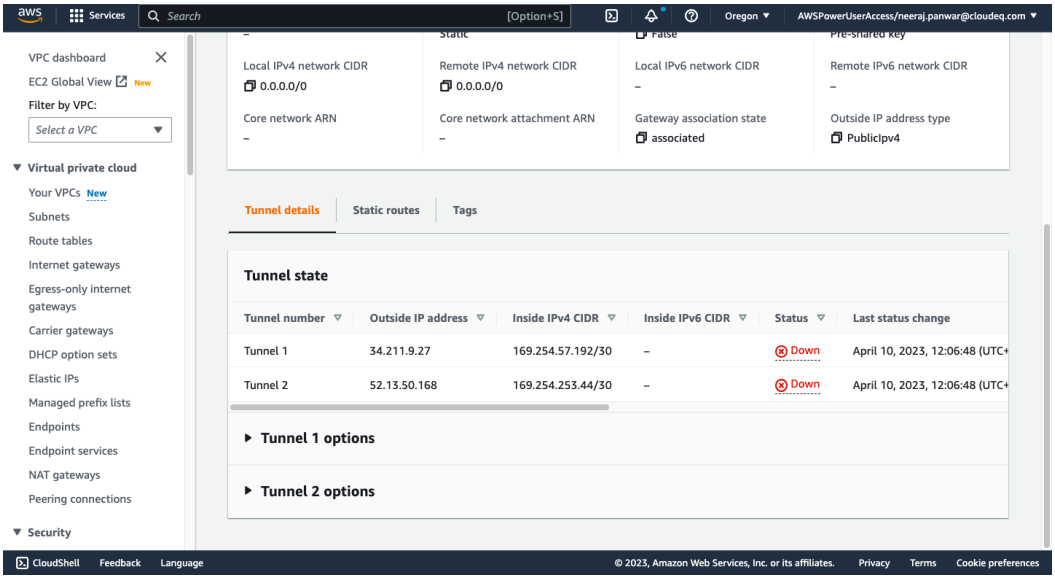
Attach the VPC for virtual private gateway:



Create Site to Site VPN:



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VPC dashboard
EC2 Global View
New
Filter by VPC:
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New
Subnets
Route tables
Internet gateways
Egress-only internet gateways
Carrier gateways
DHCP option sets
Elastic IPs
Managed prefix lists
Endpoints
Endpoint services
NAT gateways
Peering connections
Security
Static
False
Pre-shared key
Local IPv4 network CIDR
0.0.0.0/0
Remote IPv4 network CIDR
0.0.0.0/0
Local IPv6 network CIDR
–
Remote IPv6 network CIDR
–
Core network ARN
–
Core network attachment ARN
–
Gateway association state
associated
Outside IP address type
PublicIpv4
Tunnel details
Static routes
Tags
Tunnel state
Tunnel number
Outside IP address
Inside IPv4 CIDR
Inside IPv6 CIDR
Status
Last status change
Tunnel 1
34.211.9.27
169.254.57.192/30
–
Down
April 10, 2023, 12:06:48 (UTC+
Tunnel 2
52.13.50.168
169.254.253.44/30
–
Down
April 10, 2023, 12:06:48 (UTC+
Tunnel 1 options
Tunnel 2 options
CloudShell
Feedback
Language
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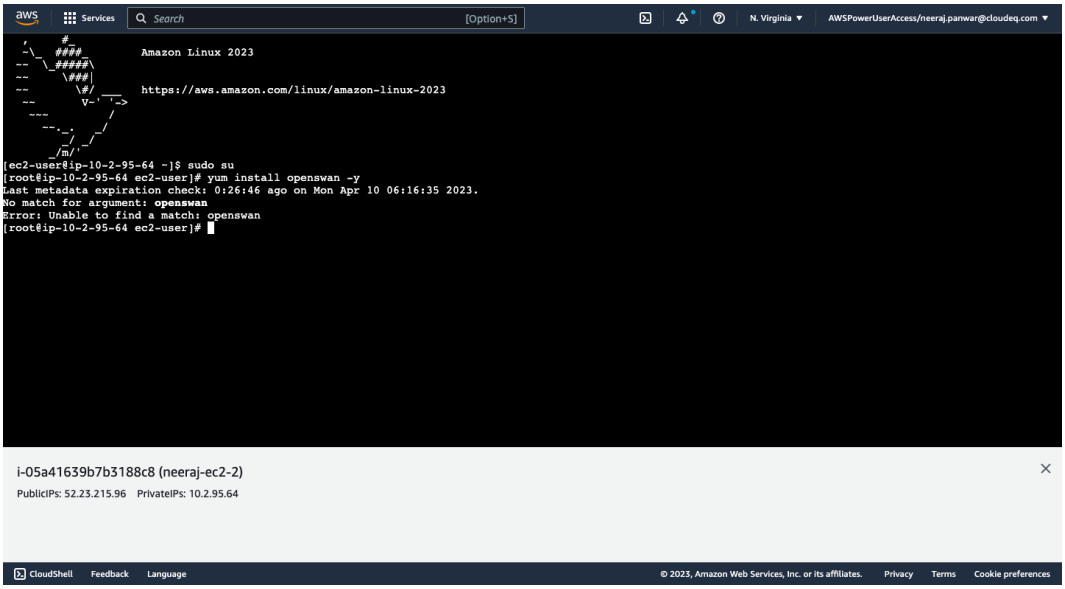
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N. Virginia
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Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
[ec2-user@ip-10-2-95-64 ~]$ sudo su
[root@ip-10-2-95-64 ec2-user]# yum install openswan -y
Last metadata expiration check: 0:26:46 ago on Mon Apr 10 06:16:35 2023.
No match for argument: openswan
Error: Unable to find a match: openswan
[root@ip-10-2-95-64 ec2-user]#
i-05a41639b7b3188c8 (neeraj-ec2-2)
PublicIPs: 52.23.215.96 PrivateIPs: 10.2.95.64
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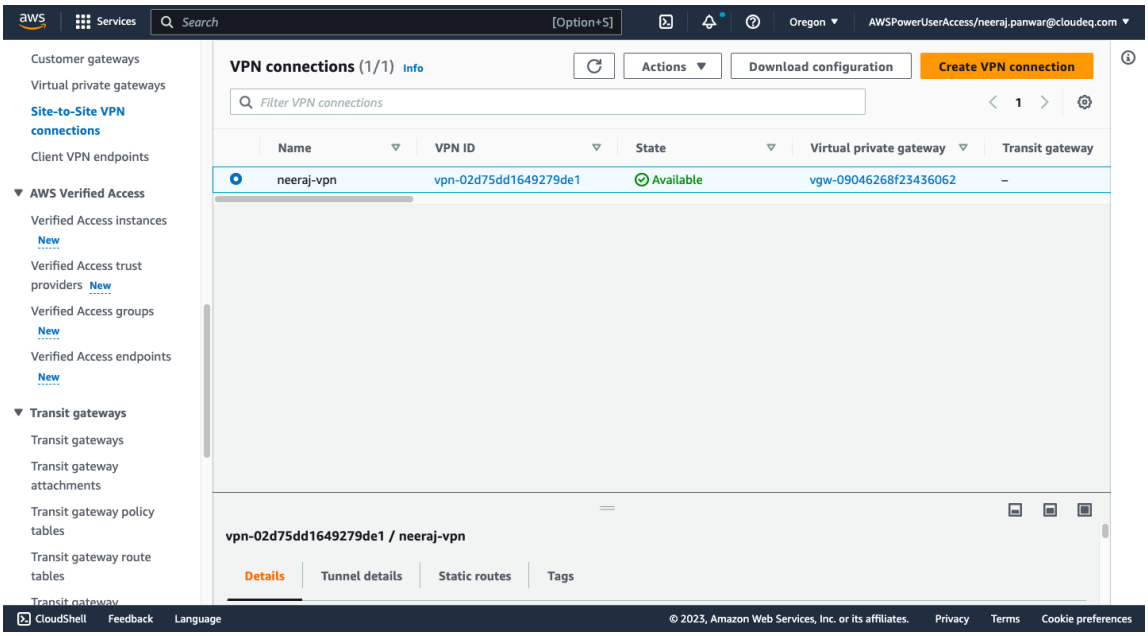
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Customer gateways
Virtual private gateways
Site-to-Site VPN connections
Client VPN endpoints
AWS Verified Access
Verified Access instances
New
Verified Access trust providers New
Verified Access groups
New
Verified Access endpoints
New
Transit gateways
Transit gateways
Transit gateway attachments
Transit gateway policy tables
Transit gateway route tables
VPN connections (1/1) Info
Actions
Download configuration
Create VPN connection
Filter VPN connections
1
Name
VPN ID
State
Virtual private gateway
Transit gateway
neeraj-vpn
vpn-02d75dd1649279de1
Available
vgw-09046268f23436062
–
vpn-02d75dd1649279de1 / neeraj-vpn
Details
Tunnel details
Static routes
Tags
CloudShell
Feedback
Language
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