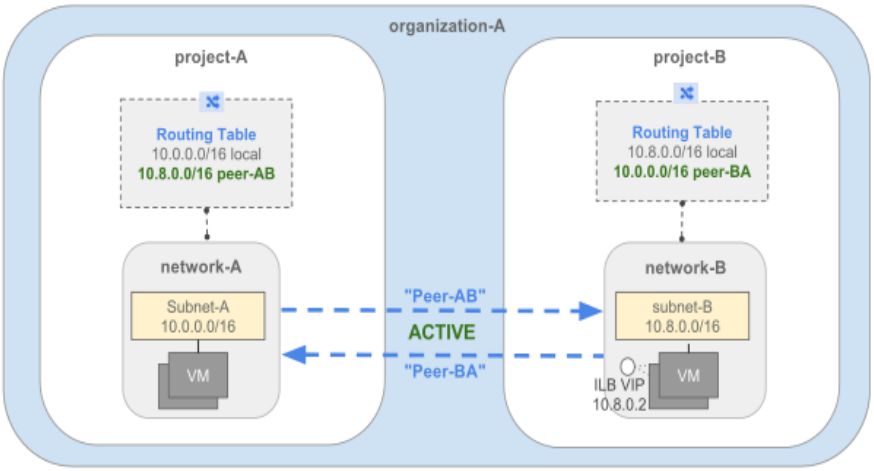
VPC-Connectivity-task-1

- Create 2 custom VPCs
- Create 1 private subnet in each VPC
- Create 1 VM in each subnet - Only private IPs and no Public IPs
- Setup VPC Peering between the 2 VPCs
- Figure out how to ping from VM 1 to VM 2, but not from VM 2 to VM 1

Tasks:
1. Routing in individual standalone VPCs.
2. Routing between two peered VPCs.
3. Understanding peering connections and the importance of 2 way connection.
4. Firewall rules list for the two VMs.

VPC Peering:
It is mainly used for establishing connection between 2 VPC's network
The VPC's can be in different region, different project , or in different organization also
It is not transitive in nature (suppose if vpc-a → vpc-b is true)
(and vpc-b → vpc-c is true)
(then vpc-a → vpc-c is not always true)
To create VPC peering one should have the IAM permission of VPC administration to perform all tasks that correspond to make it possible.
Also you would not get the access to any of the components of other VPC.
If you haven't peered from both sides then vpn peering connection would not work with showing status as inactive in the status section.



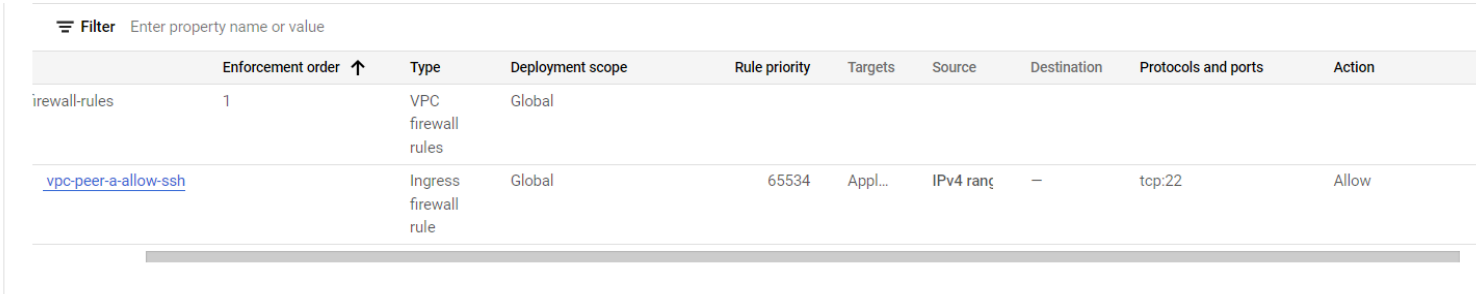
Steps to perform task →

Create the vpc-a and vpc-b with the custom subnets (remember the subnets should not overlap)
Create the Private ip only VM by providing none to Ephemeral address.

Create 2 vpc (vpc-peer-a and vpc-peer-b) with firewall rule as

Firewall Rules

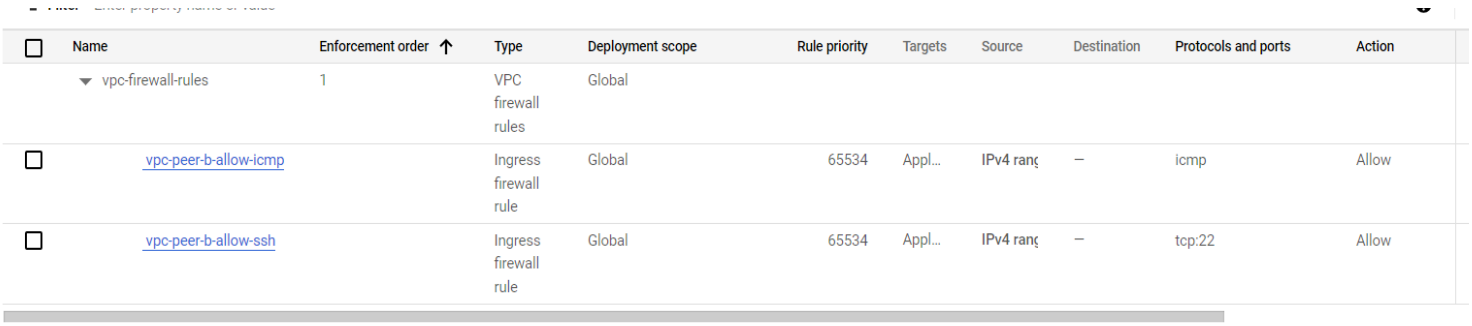
vpc-peer-a



Filter Enter property name or value

	Enforcement order	Type	Deployment scope	Rule priority	Targets	Source	Destination	Protocols and ports	Action
irewall-rules	1	VPC firewall rules	Global						
vpc-peer-a-allow-ssh		Ingress firewall rule	Global	65534	Appl...	IPv4 ranç	–	tcp:22	Allow

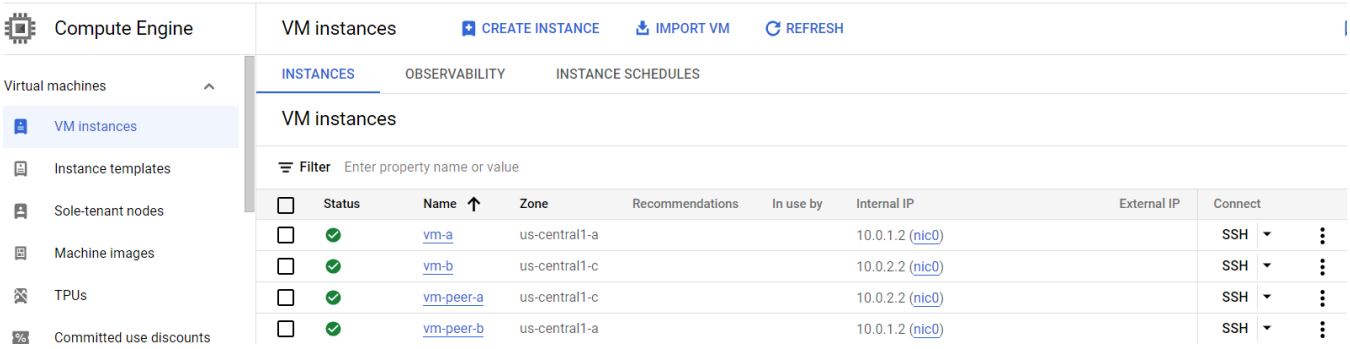
Vpc-peer-b



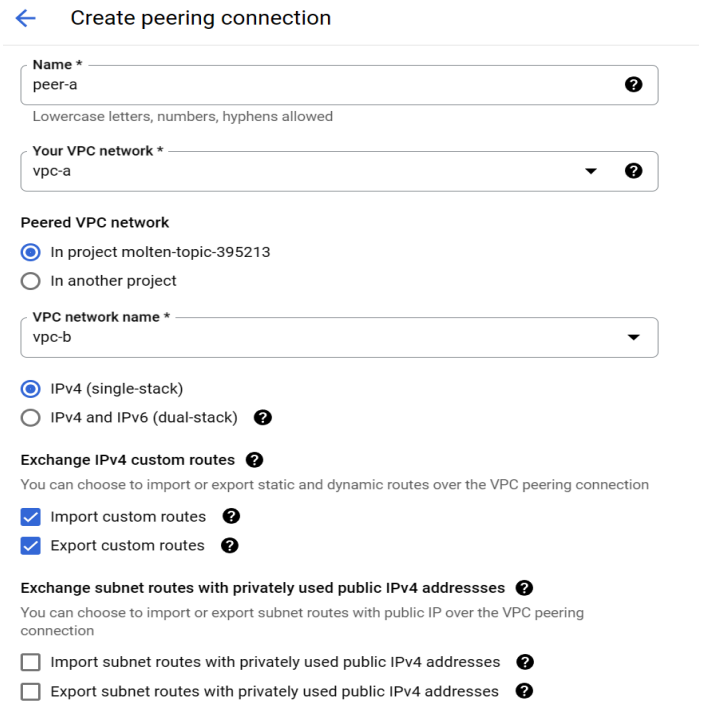
Name	Enforcement order	Type	Deployment scope	Rule priority	Targets	Source	Destination	Protocols and ports	Action
vpc-firewall-rules	1	VPC firewall rules	Global						
vpc-peer-b-allow-icmp		Ingress firewall rule	Global	65534	Appl...	IPv4 ranç	–	icmp	Allow
vpc-peer-b-allow-ssh		Ingress firewall rule	Global	65534	Appl...	IPv4 ranç	–	tcp:22	Allow

Create 2 VMs

vm-peer-a and vm-peer-b



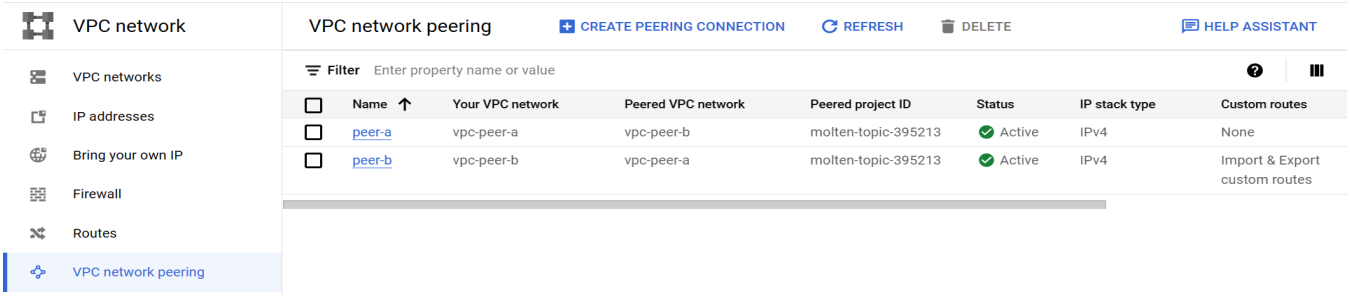
Go to vpc peering inside the vpc networks
And create peering connection (peer-a & peer-b) →



Name → provide name to vpc peering
Your VPC network → the vpc to which we want peering to establish.
Preferred VPC network → can select name of any other project whose VPC you want to use
VPC network name → the name of the other vpc.

By default-> static routes are exported and imported and you can't change them.

You can exchange the custom routes that you had made or not if you want to.



Routes::When we create vpc network peering we get a default route to internet gateway .

☐	default-route-7fba02542cbc2dc8	Default route to the Internet.	IPv4	0.0.0.0/0	1000	None	Default internet gateway	vpc-peer-a
☐	default-route-95285568dcf48f58	Default route to the Internet.	IPv4	0.0.0.0/0	1000	None	Default internet gateway	vpc-b
☐	default-route-9ee29f486b83bd1e	Default route to the Internet.	IPv4	0.0.0.0/0	1000	None	Default internet gateway	vpc-peer-b

Now trying to ping