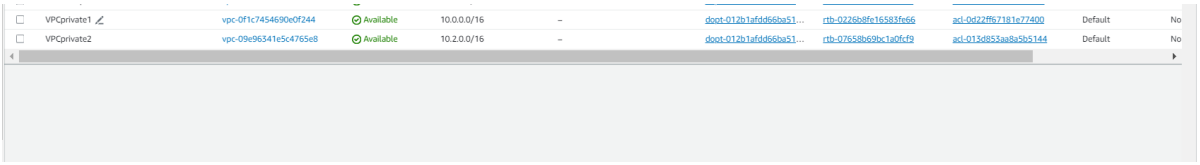
VPC PEERING

VPC Peering: Create 2 VPC and configure VPC peering. Launch an instance in each VPC's private subnet and try to SSH from each other.

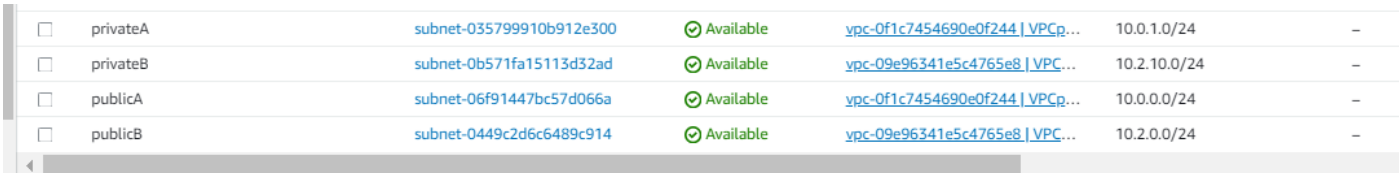
STEP 1: Create two VPC

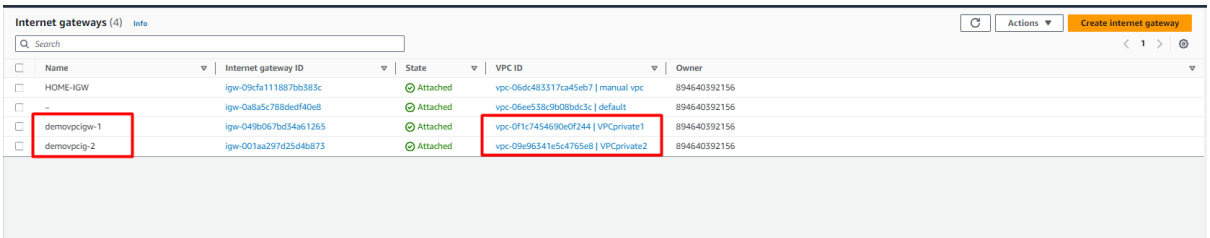
- Create VPC with a CIDR 10.0.0.0/16
- Create VOC with a CIDR 10.2.0.0/16



STEP 2 : Create a Subnet

- Create two Subnet For VPC-1
  - PublicA
  - PrivateA
- Create two Subnet for VPC-2
  - PublicB
  - PrivateB





STEP 3: Configure all VPC setting

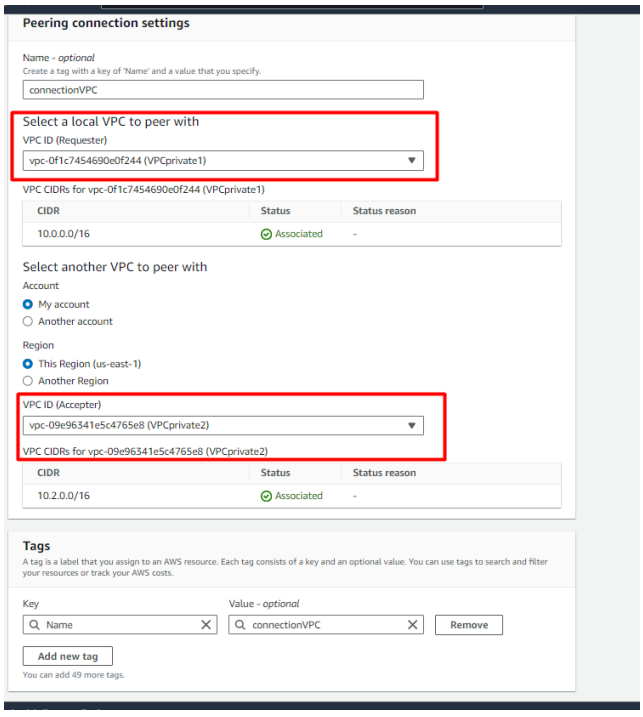
- Create two internet gateway and attach to both VPC to get Internet connection
- Create two Nat Gateway in public subnet and attach to PrivateA and PrivateB subnet
- Create a 4 route Table two for VPC1 and two for VPC2
  - ❖ Now in PublicA attach Internet Gateway with IP Anywhere
  - ❖ Now in PublicB attach Internet Gateway with IP Anywhere
  - ❖ Now in PrivateA attach Nat Gateway with IP Anywhere
  - ❖ Now in PrivateB attach Nat Gateway with IP Anywhere

STEP 4 : Create Ec2 Instance

- Create 2 Bastion host for VPC 1 and VPC 2 With Public Subnet
- Create 2 Private Instance for VPC 1 and VPC 2 With Public Subnet
- PRIVATE INSATNCE A
  - ❖ Attach Ami of Linux
  - ❖ Attach a key pair
  - ❖ Create a New SG
  - ❖ Inbound : SSH with sg-of-Bastion A
  - ❖ Hence create
- PRIVATE INSATNCE B
  - ❖ Attach Ami of Linux
  - ❖ Attach a key pair
  - ❖ Create a New SG
  - ❖ Inbound : SSH with sg-of-Bastion B
  - ❖ Hence create

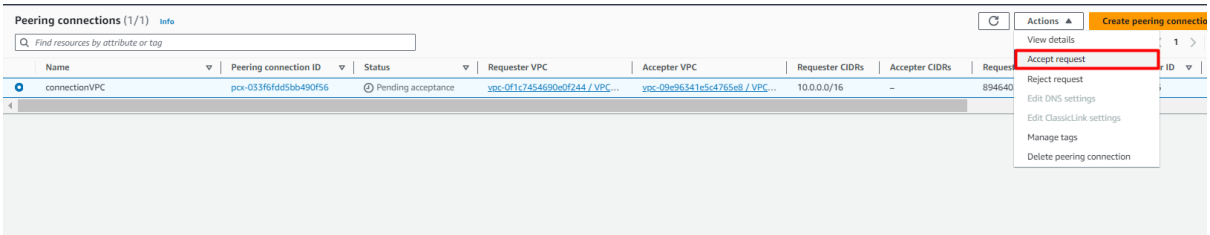
STEP 5: Create a VPC Perring

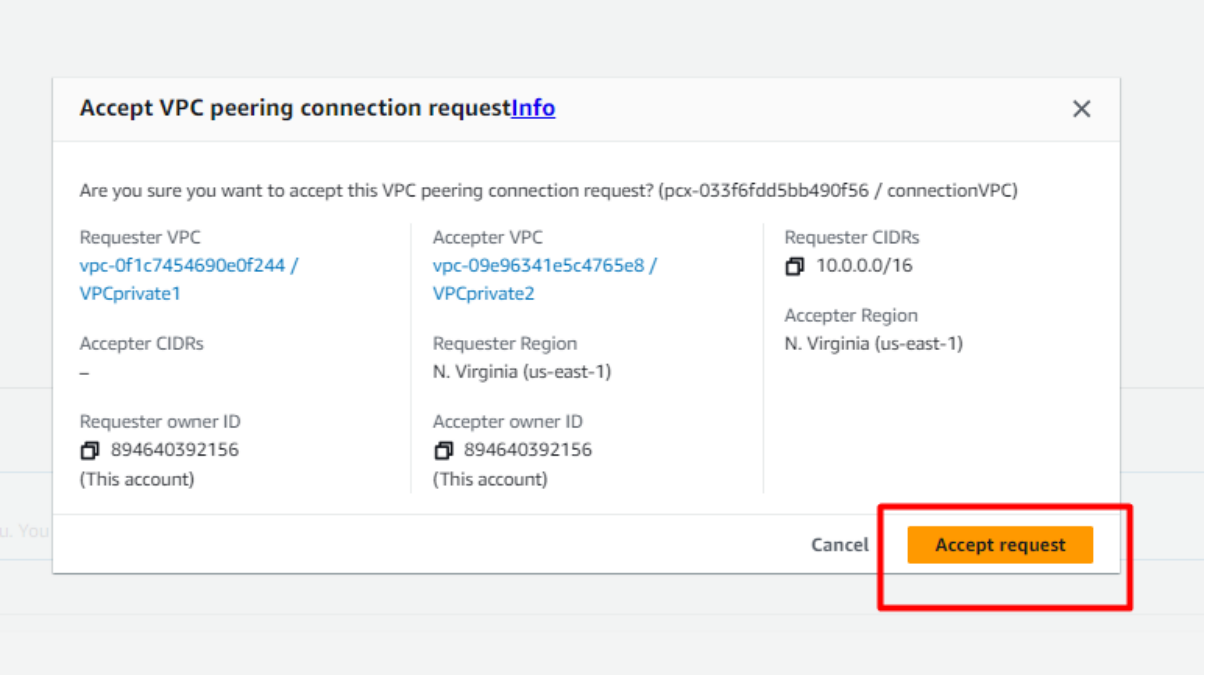
- Go to VPC
- In the left side search Peering connection
- There Create a VPC peering connection
- In Source we will put as VPC 1
- In receiver We will put as VPC2
- And select in Region
- (If we are using another account choose Another Account
- If we are using cross-region choose cross account)



STEP 6 : Accept the VPC peering

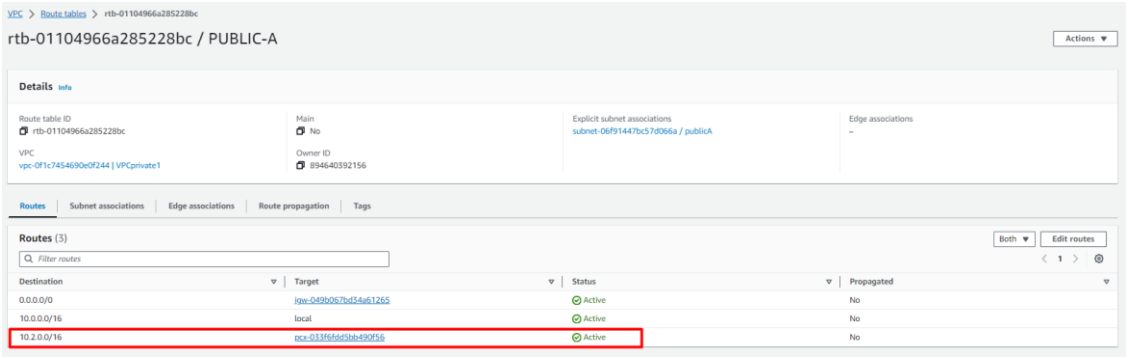
- Go to action and accept the Peering Option





STEP 7 : Editing the Route Table

- When we peer the both VPC we need to edit Route table also the share the connection
- Edit the both Route Table Public A and Public B
  - ❖ Public A :In that attach VPC peering target with The CIDR of the VPC 1
  - ❖ Public B :In that attach VPC peering target with The CIDR of the VPC 2
- Edit the both Route Table Private and Private B
  - ❖ Private A :In that attach VPC peering target with The CIDR of the VPC 1
  - ❖ Private B :In that attach VPC peering target with The CIDR of the VPC 2



VPC > Route tables > rtb-01104966a285228bc

rtb-01104966a285228bc / PUBLIC-A

Actions

Details Info

Route table ID rtb-01104966a285228bc	Main No	Explicit subnet associations subnet-06f91447bc57d066a / publicA	Edge associations –
VPC vpc-0f1c7454690e0f244 | VPCprivate1	Owner ID 894640392156		

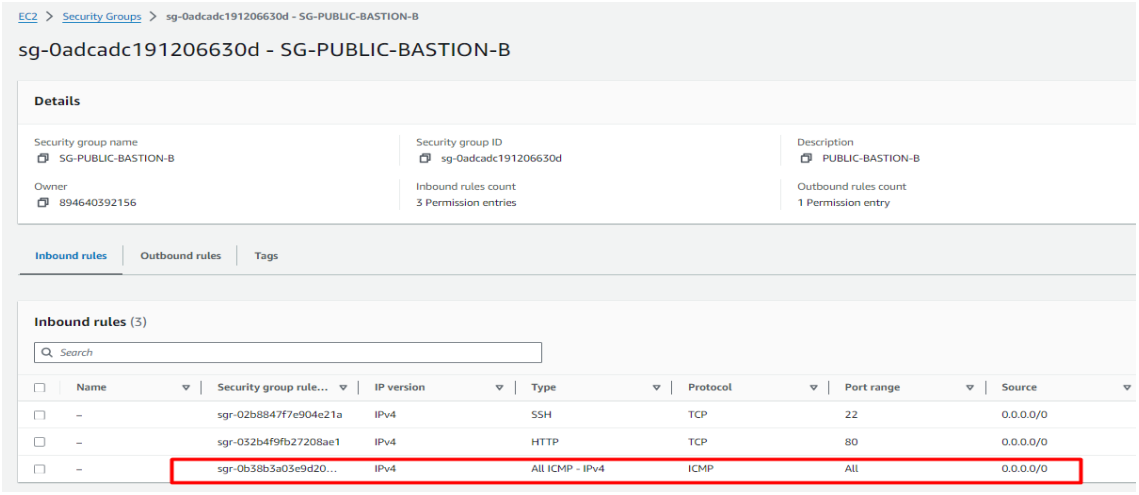
Routes | Subnet associations | Edge associations | Route propagation | Tags

Routes (3)

Filter routes

Both | Edit routes

Destination	Target	Status	Propagated
0.0.0.0/0	igw-049b067bd34a61265	Active	No
10.0.0.0/16	local	Active	No
10.2.0.0/16	pcx-033f6f6d5bb490f56	Active	No



EC2 > Security Groups > sg-0adcadc191206630d - SG-PUBLIC-BASTION-B

sg-0adcadc191206630d - SG-PUBLIC-BASTION-B

Details

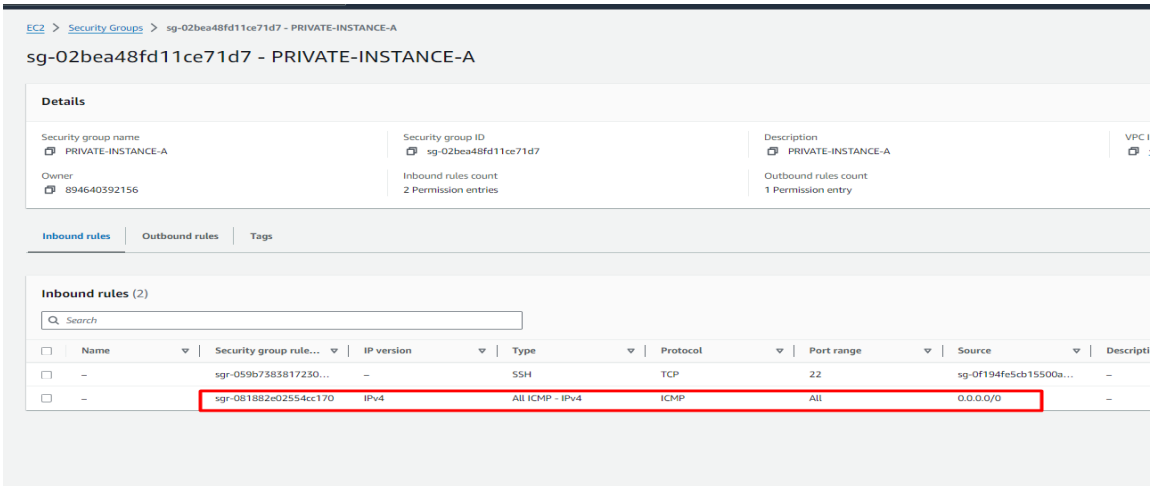
Security group name SG-PUBLIC-BASTION-B	Security group ID sg-0adcadc191206630d	Description PUBLIC-BASTION-B
Owner 894640392156	Inbound rules count 3 Permission entries	Outbound rules count 1 Permission entry

Inbound rules | Outbound rules | Tags

Inbound rules (3)

Search

Name	Security group rule...	IP version	Type	Protocol	Port range	Source
–	sgr-02b8847f7e904e21a	IPv4	SSH	TCP	22	0.0.0.0/0
–	sgr-032b4f9fb27208ae1	IPv4	HTTP	TCP	80	0.0.0.0/0
–	sgr-0b38b3a03e9d20...	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0



EC2 > Security Groups > sg-02bea48fd11ce71d7 - PRIVATE-INSTANCE-A

sg-02bea48fd11ce71d7 - PRIVATE-INSTANCE-A

Details

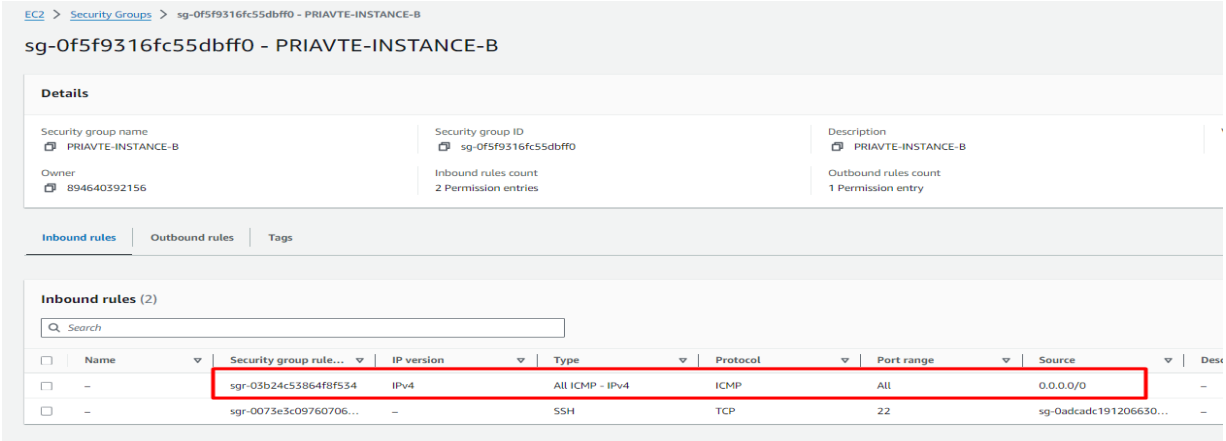
Security group name PRIVATE-INSTANCE-A	Security group ID sg-02bea48fd11ce71d7	Description PRIVATE-INSTANCE-A	VPC I
Owner 894640392156	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry	

Inbound rules | Outbound rules | Tags

Inbound rules (2)

Search

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Descripti
–	sgr-059b7383817230...	–	SSH	TCP	22	sg-0f194fe5cb15500a...	–
–	sgr-081882e02554cc170	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0	–



EC2 > Security Groups > sg-0f5f9316fc55dbff0 - PRIAVTE-INSTANCE-B

sg-0f5f9316fc55dbff0 - PRIAVTE-INSTANCE-B

Details

Security group name PRIAVTE-INSTANCE-B	Security group ID sg-0f5f9316fc55dbff0	Description PRIAVTE-INSTANCE-B
Owner 894640392156	Inbound rules count 2 Permission entries	Outbound rules count 1 Permission entry

Inbound rules | Outbound rules | Tags

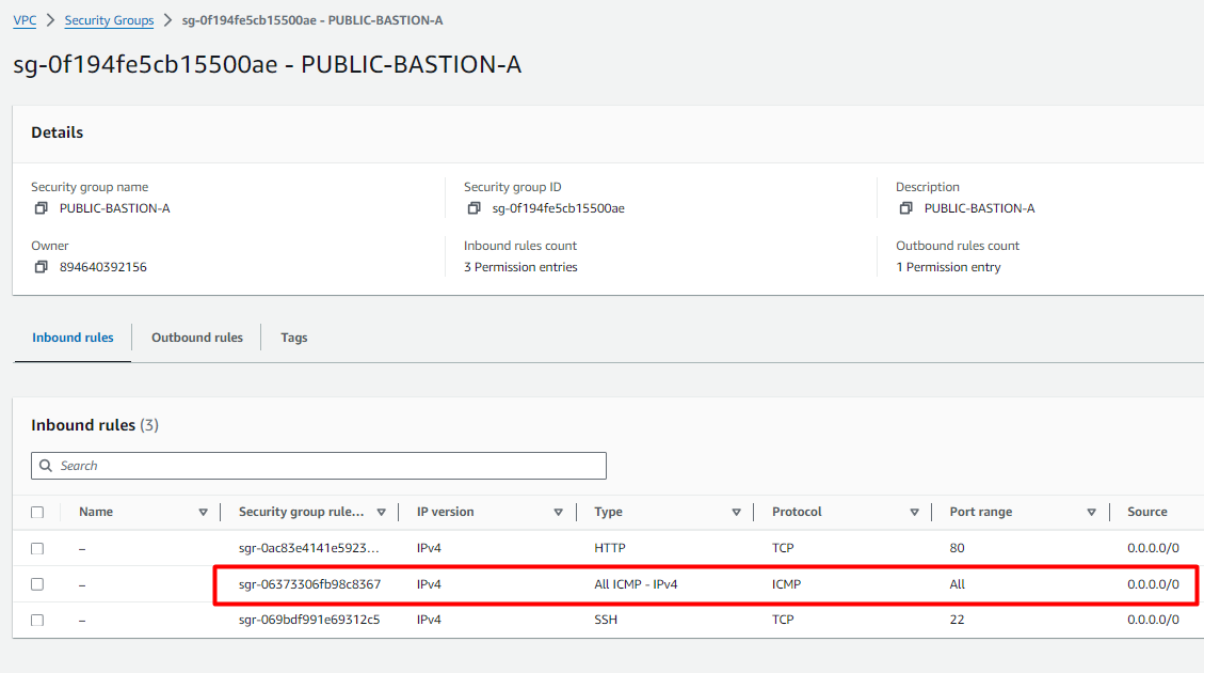
Inbound rules (2)

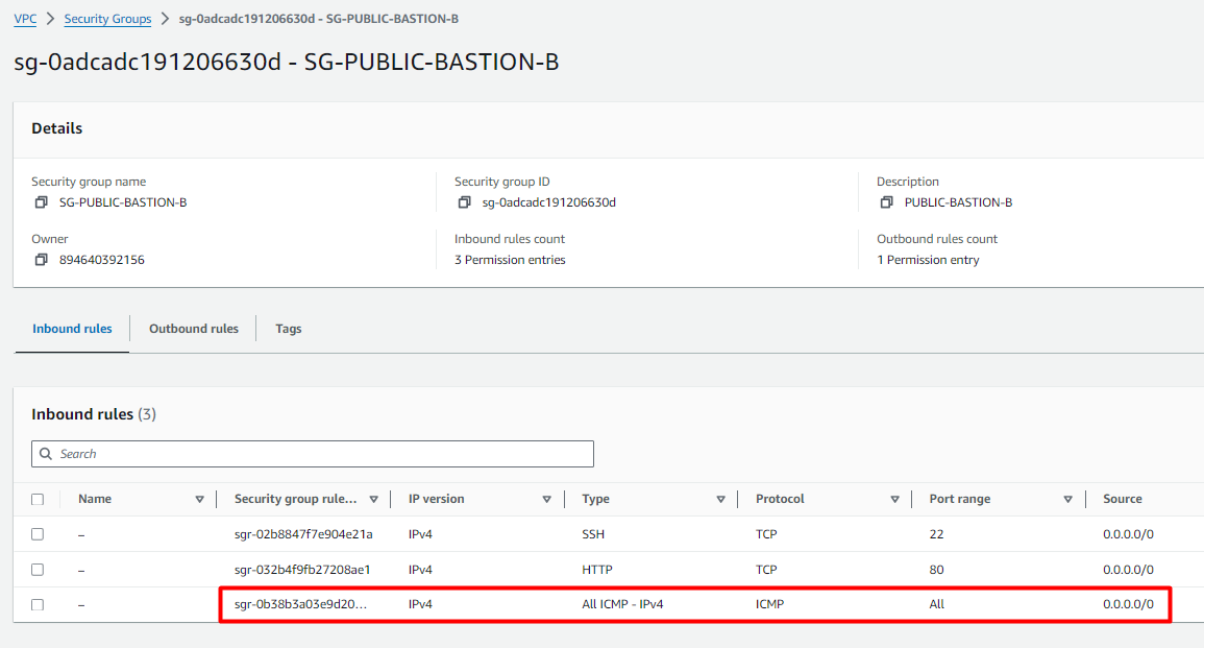
Search

Name	Security group rule...	IP version	Type	Protocol	Port range	Source	Desc
–	sgr-03b24c53864f8f534	IPv4	All ICMP - IPv4	ICMP	All	0.0.0.0/0	–
–	sgr-0073e3c09760706...	–	SSH	TCP	22	sg-0adcadc191206630...	–

STEP 8: Show Connection in Public server

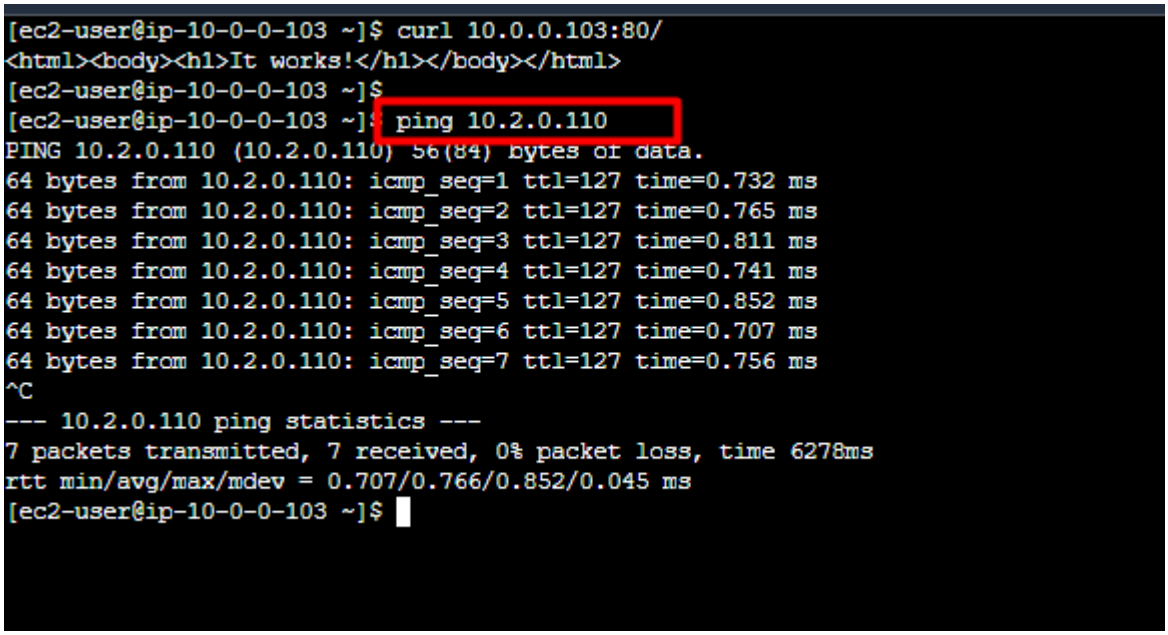
- Edit Security Grp of Public bastion A and Public bastion B
- When we need to ping inside the instance we need to add ICMP port



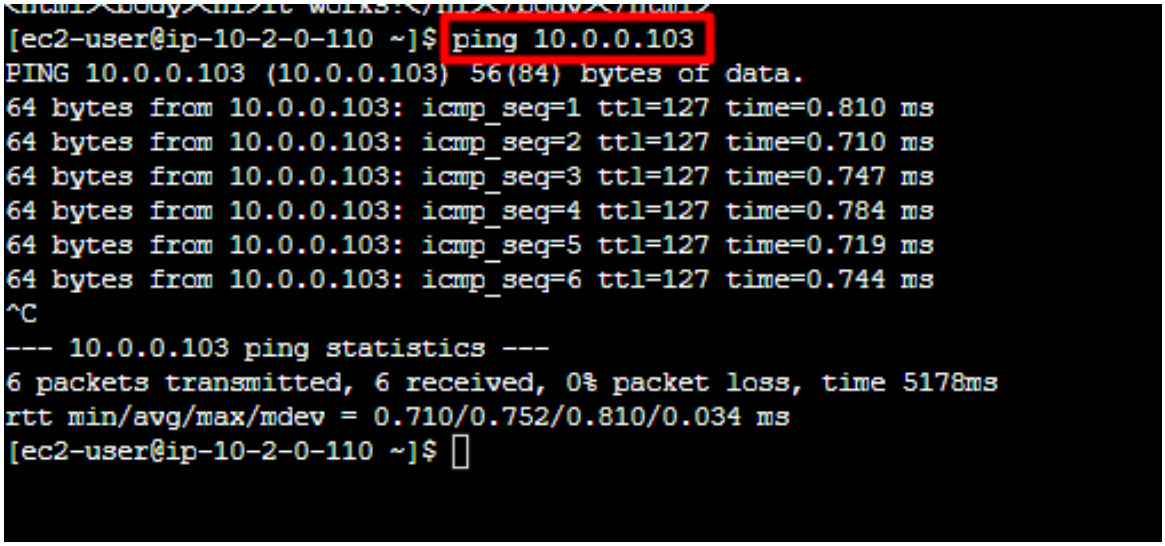


OUTPUT : BASTION PUBLIC INSTANCE

SOURCE --

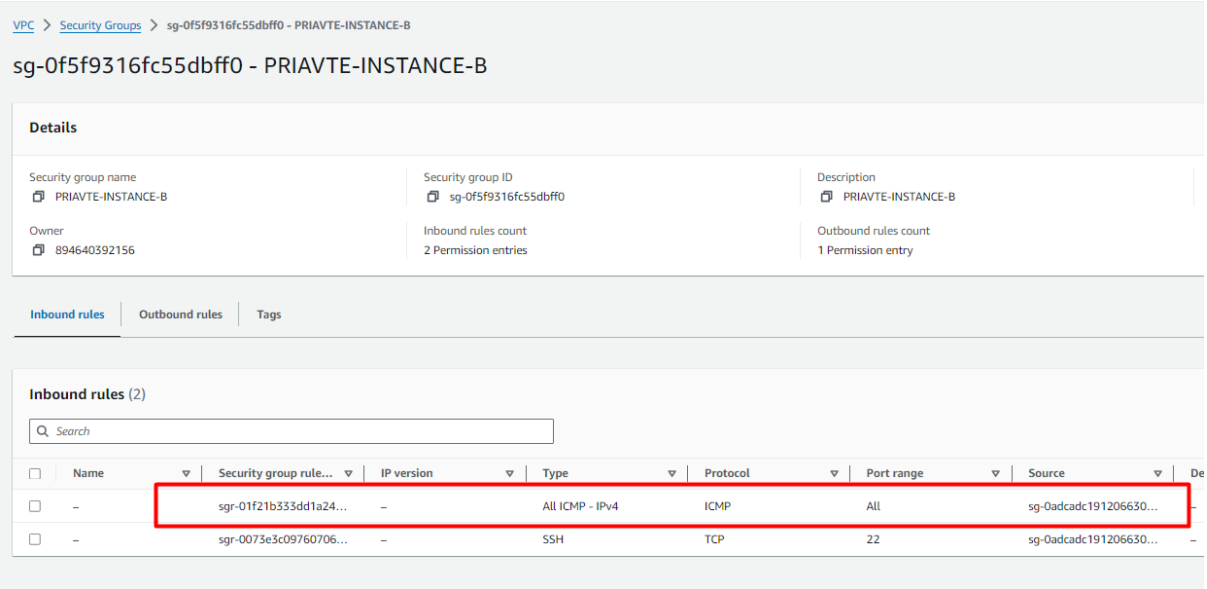


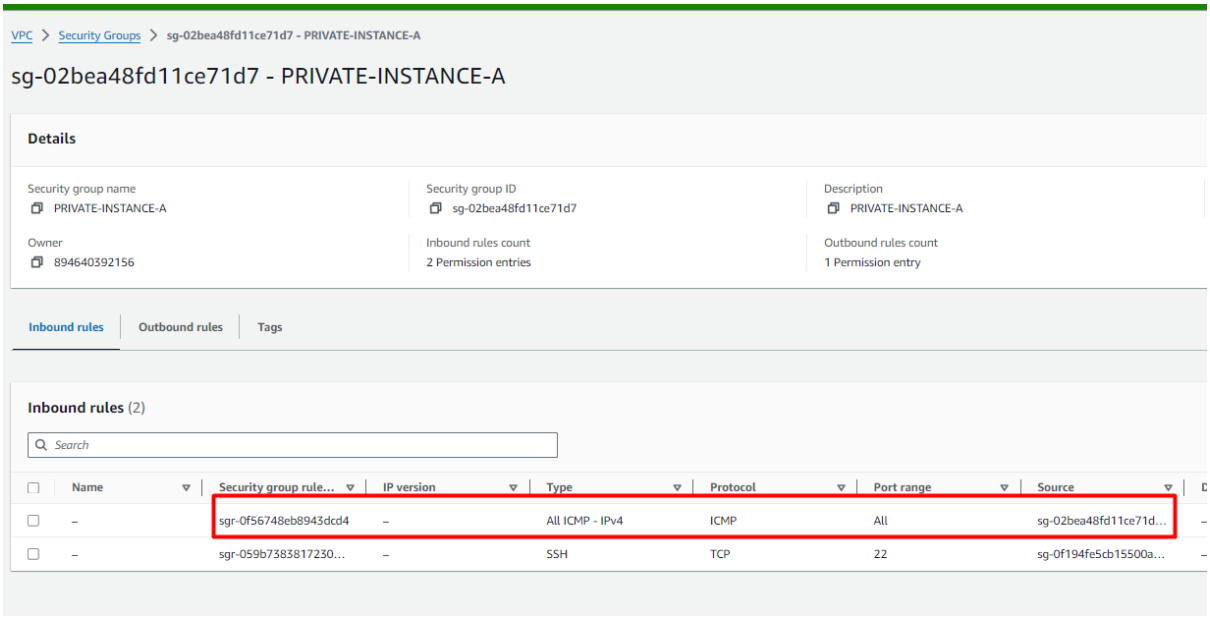
RECIVIER --



STEP 9: Show Connection in Private server

- Edit Security Grp of PRIVATE INSTANCE A and PRIVATE INSTANCE B
- When we need to ping inside the instance we need to add ICMP port





OUTPUT :

SOURCE –

```
[ec2-user@ip-10-0-1-166 ~]$ ping 10.2.10.203
PING 10.2.10.203 (10.2.10.203) 56(84) bytes of data.
64 bytes from 10.2.10.203: icmp_seq=1 ttl=126 time=1.37 ms
64 bytes from 10.2.10.203: icmp_seq=2 ttl=126 time=0.875 ms
64 bytes from 10.2.10.203: icmp_seq=3 ttl=126 time=0.844 ms
^C
--- 10.2.10.203 ping statistics ---
3 packets transmitted, 3 received, 0% packet loss, time 2003ms
rtt min/avg/max/mdev = 0.844/1.029/1.369/0.240 ms
[ec2-user@ip-10-0-1-166 ~]$
```

RECEVIER –

```
[ec2-user@ip-10-2-10-203 ~]$ ping 10.0.1.166
PING 10.0.1.166 (10.0.1.166) 56(84) bytes of data.
64 bytes from 10.0.1.166: icmp_seq=1 ttl=126 time=1.78 ms
64 bytes from 10.0.1.166: icmp_seq=2 ttl=126 time=1.09 ms
64 bytes from 10.0.1.166: icmp_seq=3 ttl=126 time=1.09 ms
64 bytes from 10.0.1.166: icmp_seq=4 ttl=126 time=1.10 ms
^C
--- 10.0.1.166 ping statistics ---
4 packets transmitted, 4 received, 0% packet loss, time 3005ms
rtt min/avg/max/mdev = 1.086/1.264/1.777/0.296 ms
[ec2-user@ip-10-2-10-203 ~]$
```

i-093c7972f70518133 (PUBLIC-BASTION-B)

PublicIPs: 54.205.79.101 PrivateIPs: 10.2.0.110