**LAB 261**

**Analysis**

One thing I noticed about the Ip when I selected both ec2 instances was that instance A had only the private ipv4 address and no public Ip. While the second instance had both the private and public ipv4 addresses.

When I tried to SSH into instance A with the available IP, I got an error that read “ssh: connect to host 10.0.10.147 port 22: No route to host”. This is since instance A has only a private Ip and a private IP cannot be accessed on the internet…i.e. outside the VPC.

With the Instance B, I was able to SSH into the ec2 instance without any errors, using the public IP address. This instance had both the private and public IP address and I successfully SSHed into it using its public Ip address.

**Solution and Response to Customer**

Your issue revolves around one instance being accessible (Instance B) due to it having a public IP, while the Instance A lacks external accessibility since it has only a private IP. To fix the problem with Instance B, I must associate a public Ip address to it in the management console.

Also, I recommend you use a public CIDR for the new VPC, since it’s a necessity to get a public IP address for external connectivity.

**LAB 262**

**Analysis**

If Bob’s instance’s Ip address keeps changing every time, then it was assigned a dynamic Ip address.

When I replicated Bob’s problem by launching my own ec2 instance, I noticed that the public IP address of the instance changed when I stopped and restarted the instance. Whereas the private IP address remained the same when I stopped and restarted the instance. Therefore, I would conclude that the Public IP address of mine and bob’s instances are both dynamically assigned, while the private IP address is static.

**Solution**

Now to solve the customer’s issue, I allocated an elastic IP address to my test instance, and I realized that that my instance’s Ip address had become the same as the elastic IP address I assigned to it. When I restarted the instance, I realized that the public Ip address remained unchanged. This means that the new Ip is a static one. I have therefore solved the customer’s issue.

**Response to the customer**

I noticed that your instance had a dynamic IP address, which caused it to change whenever restarted. To get a persistent Ip address, you need to assign an elastic IP address which will then replace the public IP address of your instance, now your IP address remains unchanged no matter how many times the instance is restarted.