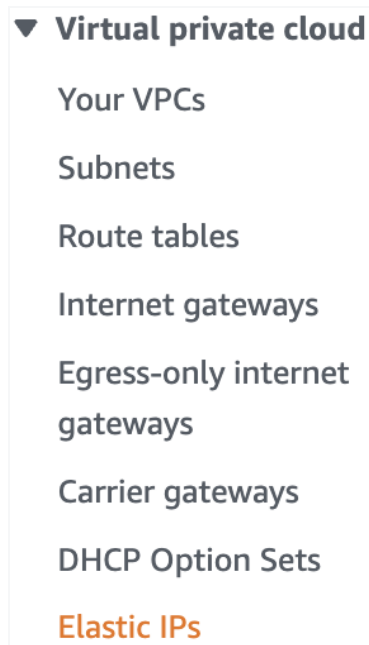## Introduction

An Elastic IP address (EIP) is a static and public IP address that you can associate with an EC2 instance. EIPs have the benefit of not changing when you stop and start an EC2 instance, whereas the default public IP that comes with an EC2 instance may change. This gives you the benefit of a reliable IP address to associate with your EC2 instance. In this Lab Step you will allocate an EIP and associate it with your EC2 instance.

Instructions

1. Navigate to the VPC dashboard.

2. From the VPC dashboard, click on **Elastic IPs** link in the sidebar menu:

▼ Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet
gateways

Carrier gateways

DHCP Option Sets

Elastic IPs

3. Click **Allocate Elastic IP address** and then click **Allocate**:

Allocate Elastic IP address

4. Review the newly-created EIP:

Elastic IP addresses (1/1)

	Name		Allocated IPv4 add...	Type	
☑	–		44.233.123.80	Public IP	

5. With the EIP still selected, click **Actions** > **Associate Elastic IP address** and then select the following values:

- **Resource type**: Instance
- **Instance**: Select the only instance from the drop-down list. It is the instance you created.
- **Private IP**: Leave this blank to have an available Private IP automatically assigned.

Elastic IP address: 44.233.123.80

Resource type
Choose the type of resource with which to associate the Elastic IP address.

◉ Instance

◯ Network interface

⚠ If you associate an Elastic IP address to an instance that already has an Elastic IP address associated, this previously associated Elastic IP address will be disassociated but still allocated to your account. Learn more ↗

Instance

🔍 Choose an instance   ↻

Private IP address
The private IP address with which to associate the Elastic IP address.

🔍 Choose a private IP address

Reassociation
Specify whether the Elastic IP address can be reassociated with a different resource if it already associated with a resource.

☐ Allow this Elastic IP address to be reassociated

6. Click **Associate** to associate the EIP to the selected EC2 instance:

Cancel   **Associate**

Notice the EIP now has an instance ID in the **Associated instance ID** column, corresponding to the EC2 instance you associated it with.

7. Copy the **Allocated IPv4 address** in the **Summary** tab.

Summary	Tags

Summary

Allocated IPv4 address	Type	Allocation ID	Reverse DNS record
44.233.123.80	Public IP	eipalloc-0e791768cef070c43	–
Association ID	**Scope**	**Associated instance ID**	**Private IP address**
eipassoc-0ea26c0efd9e156d7	VPC	i-05c8b8871bd381480	10.0.0.239
Network interface ID	**Network interface owner account ID**	**Public DNS**	**NAT Gateway ID**
eni-0a23a31ccbd0c9fbb	628856946656	–	–
Address pool	**Network Border Group**		
Amazon	us-west-2		

8. In a terminal window, Use the ping utility to ping the new EIP. If you successfully ping, it means the EIP was associated with your EC2 instance:

📋 **Copy code**

```
$ ping <Elastic_IP_Address>
```

```
64 bytes from 35.169.119.190: icmp_seq=1 ttl=236 time=49.7 ms
64 bytes from 35.169.119.190: icmp_seq=2 ttl=236 time=133 ms
64 bytes from 35.169.119.190: icmp_seq=3 ttl=236 time=49.9 ms
64 bytes from 35.169.119.190: icmp_seq=4 ttl=236 time=46.7 ms
64 bytes from 35.169.119.190: icmp_seq=5 ttl=236 time=46.6 ms
```

Reminder: Use *Control-C* on Windows and on a Mac to stop the ping test.

Summary

In this Lab Step, you allocated an Elastic IP Address and associated it with your EC2 instance.

VALIDATION CHECKS

2   Checks   Check again   C

✔   **Allocated Elastic IP**

      Allocated an Elastic IP address

      Networking for AWS

✅ Associated Elastic IP

Associated Elastic IP with the EC2 Instance

Networking for AWS