

What is an Elastic IP (EIP)?

An Elastic IP is a static, public IPv4 address designed for dynamic cloud computing. It allows you to associate an IP address with your EC2 instance and can remain static, even if the instance is stopped or restarted. The key benefit of Elastic IPs is that they are persistent and will not change unless explicitly released or detached.

Steps to Allocate and Associate an Elastic IP to an EC2 Instance

1. Allocate a New Elastic IP Address

Follow these steps to allocate an Elastic IP:

1. Log in to AWS Console:

Go to [AWS Management Console](#) and log in with your credentials.

2. Navigate to the EC2 Dashboard:

In the top search bar, type **EC2** and select the **EC2** option.

3. Go to Elastic IPs:

On the left-hand side panel, under **Network & Security**, click on **Elastic IPs**.

4. Allocate New Elastic IP:

Click the **Allocate Elastic IP address** button at the top of the page.

5. Select the Network:

In the **Allocate Elastic IP address** dialog, select **Amazon pool** for the **Public IP pool** (for general use).

Optionally, you can select the **IPv4** option if you're using IPv4 addresses.

6. **Click Allocate:**

Click the **Allocate** button to receive a new Elastic IP address.

Associate the Elastic IP with Your EC2 Instance

Now that you have allocated an Elastic IP, follow these steps to associate it with your EC2 instance:

1. **Select the Elastic IP Address:**

After allocation, you'll be directed to the **Elastic IPs** page where the new IP address will be listed.

Select the newly allocated IP address.

2. **Click Associate:**

Once the Elastic IP is selected, click the **Actions** button and select **Associate Elastic IP address**.

3. **Choose the Instance to Associate:**

In the **Associate Elastic IP address** dialog, under the **Instance** section, select the EC2 instance you want to associate with this IP.

4. **Select the Private IP (Optional):**

If the EC2 instance has multiple private IPs, you may need to select which private IP to associate with the Elastic IP.

5. **Associate the IP:**

Click the **Associate** button to finalize the association.

6. **Verify the Association:**

Once the association is successful, you will see the new Elastic IP listed as the **Public IP** of your EC2 instance on the EC2 Dashboard.

Pricing for Elastic IPs

Free Usage: An Elastic IP is free when it is associated with a running EC2 instance.

Charges Apply: If the Elastic IP is not associated with any EC2 instance or if it is associated with a stopped instance, AWS will charge for the unused IP address.