

What is an Elastic IP address?

This article will discuss the basics of Elastic IP addresses in a VPC virtual private cloud. If you are not familiar with this term, an Elastic IP address is basically just that - an elastic one! You can associate your new EIP to any number of resources, including instances or load balancers.

This means that you have the flexibility to change the allocation at any time without having to update anything on other parts of your account. The first thing to do is choose the current IP address that should be associated with our EIP.

A type of NAT IP address, an Elastic IP Address is one that has been provided in a public-facing Cloud gateway and has been configured to the dedicated cloud help with NAT. The cloud resource may connect to the Internet by utilizing this Elastic IP Address once it's linked with a cloud resource.

Picture 1 of What is an Elastic IP address?

Elastic IP

Elastic IPs are utilized by AWS to maintain its dynamic cloud services. Within the AWS systems, consumers have (VPCs) virtual private clouds. Within the VPCs, users have been measured. The Elastic IP is what is utilized to promote the information within the model to the public internet.

If the discussion finished there, you would guess there is no considerable difference between an elastic IP and a public IP address. That is why we require a bit additional explaining regarding what an Elastic IP address is used for.

Thus, an Elastic IP is a mixture of a public IP and a static IP. It lets you resume broadcasting AWS instances within your AWS network.

But, to fully understand the elastic IP, we should comprehend static IP and public IP addresses.

Public IP addresses

The internet recognizes you via a public IP address. The IP address that intercommunicates your internet-connected gadget to the public internet is known as a public IP address.

There are two separate types of IP addresses: public and private ip addresses. A private network has its own unique IP address. These are less frequent, and they won't be relevant when it comes to Elastic IPs with your AWS setup.

Elastic and public IP addresses

1. The primary difference between a public IP address and an Elastic IP address is that the former is assigned by your ISP, whereas the latter is assigned by AWS.
2. The Elastic IP is a VPC-enabled address, whereas the public IP may be used in either a VPC or classic network.
3. The Elastic IP can be kept as an autonomous resource, but the public IP address cannot.
4. The Elastic IP may be associated with and disconnected from an ECS representative at any time, whereas the public IP address cannot.

Advantages of IP address

The benefits of utilizing an elastic IP address include:

1. Purchasing and holding real estate would be considered a second time.
2. You may purchase and store an EIP as a distinct item. EIPs are not part of any other computing or storage services.
3. This is a dynamic association that may be adapted to suit different circumstances.
4. If an EIP is no longer needed, you may dissociate it from a cloud resource and then remove it. This keeps you from being charged erroneously.
5. The system's capacity to be altered.
6. You may change the maximum bandwidth of an EIP at any time. The new bandwidth is immediately implemented.

Disadvantages of IP address

The following are some of the limitations of Elastic IP Address (EIP):

Known limitations of Elastic IP Address

1. For each Cloud account, you may purchase up to 20 Elastic IP Addresses.
2. An Elastic IP Address can only be linked to one cloud service and must be in the Available state. An EIP is instantly activated when linked to a cloud resource.
3. The security-locked Elastic IP Address can neither be released, linked to cloud resources, nor disconnected from cloud resources.

Elastic IP cost maintenance

You may use the AWS Console to help you find any unassociated or detached Elastic IPs. However, this technique is laborious and manual, particularly for consumers with multiple resources across numerous locations.

Elastic IP costs are easier to control with Cloud. The Cloud Rightsizing Report is a two-step procedure that begins by running it to determine unconnected Elastic IPs and then ending them.

The first stage is to use a policy that notifies system administrators when an Elastic IP has been retained for a specified length of time. This notification allows admins to look into why an IP is unassigned and either reassign

or release it as necessary. Monthly Elastic IP costs should ideally be as near to zero as feasible.

As a tech enthusiast we suggest you may use this method to determine and remove any zombie assets in your AWS setting—including unconnected EBS volumes, expired snapshots, inactive load balancers, and other resources—potentially keeping you multiple dollars each month on your cloud cost.

Final thoughts

These types of IP addresses are used by cloud servers. It is called elastic IP because it possesses the quality of both public and static IP addresses because these both are used hop to hop communication or in simpler words for accessing the internet. EIPs are based on advanced internet protocol which makes it more secure and reliable.

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