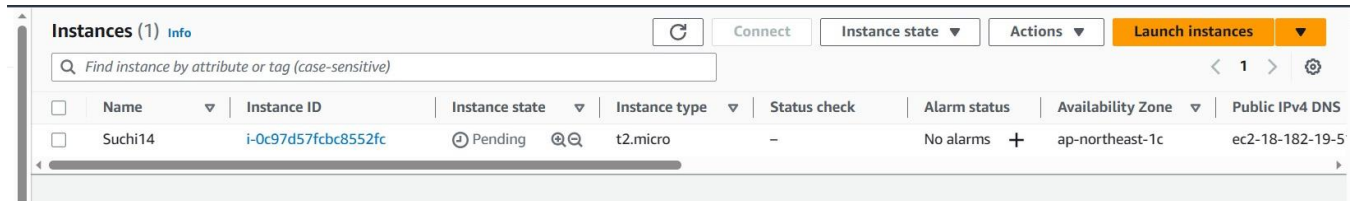


AWS-14

Create an elastic IP for an instance.

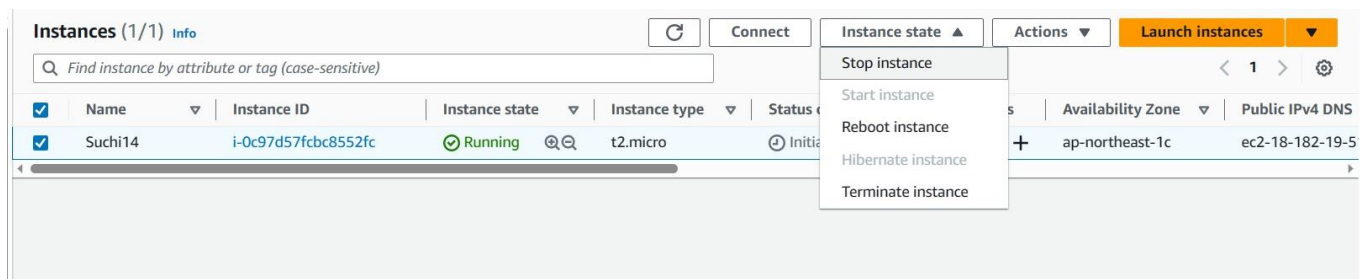
1. Sign-in to your AWS console. Then create an EC2 instance. (We do not need any user-data or any custom security group for this assignment)



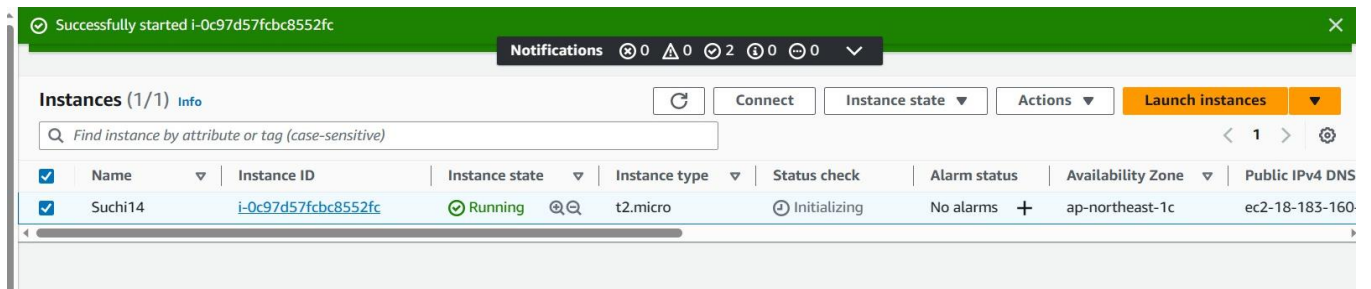
2. After the instance gets created click on it. Copy the public IPv4 address and paste it in a simple text file anywhere in your pc.



3. Now go back to the instances list and select our instance. After selection click on the Instance state button and click on the Stop Instance option.



4. Now again select the instance and click on the Instance state button. Now click on the start instance button. Click on the instance and copy the IPv4 address again and paste it in the same text file.



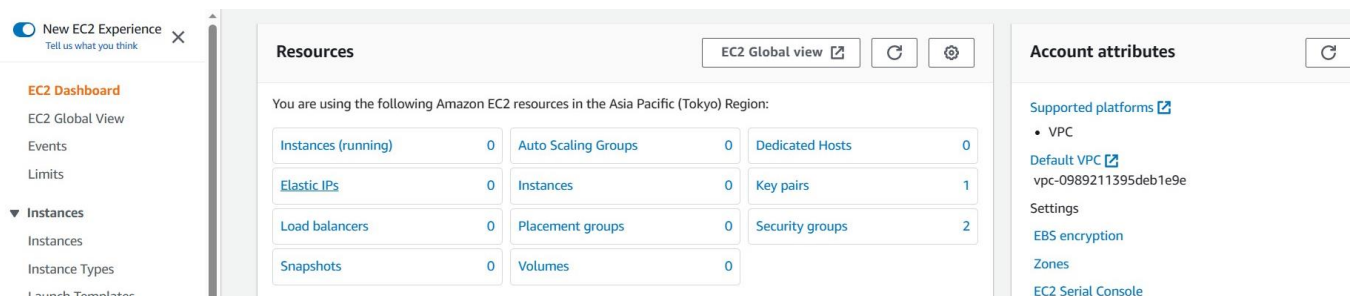
5. Now compare both the new and old IP address and notice that they are not the same.

18.182.19.51

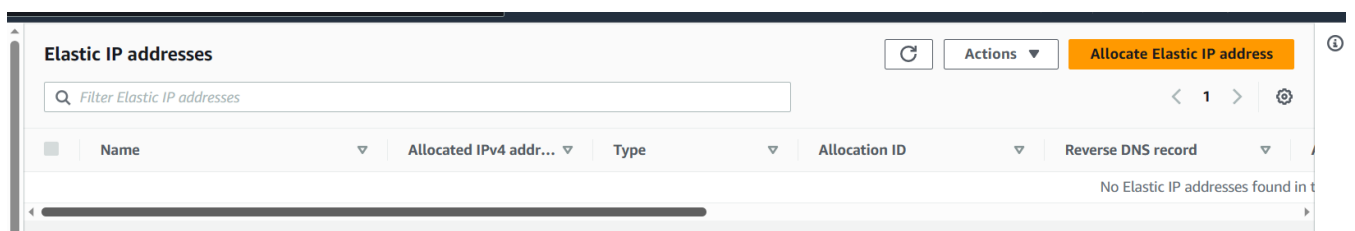
18.183.160.64

So even if we stop and restart our same instance it changes its public IPv4 address. This may not be desirable in some situations. So, to ensure that our instance does not change its public IPv4 address under any circumstances, we need to create an Elastic IP and associate/bind the instance to it. After that it will always be assigned the same Elastic IP as its public IPv4 address (static) all the time.

6. Then click on Elastic Ips.



7. Then click on Allocate Elastic IP address.



8. Then no need to change any options. Just click on the Allocate button.

WS

Services

Search

[Alt+S]

Network Border Group

Info

ap-northeast-1

X

Public IPv4 address pool

Amazon's pool of IPv4 addresses

Public IPv4 address that you bring to your AWS account (option disabled because no pools found) [Learn more](#)

Customer owned pool of IPv4 addresses (option disabled because no customer owned pools found) [Learn more](#)

Global static IP addresses

AWS Global Accelerator can provide global static IP addresses that are announced worldwide using anycast from AWS edge locations. This can help improve the availability and latency for your user traffic by using the Amazon global network. [Learn more](#)

Create accelerator

Tags - optional

A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

No tags associated with the resource.

Add new tag

You can add up to 50 more tag

Cancel

Allocate

9. Then click on Allocated IPv4 address.

Elastic IP address allocated successfully.

Elastic IP address 35.75.63.252

Associate this Elastic IP address

Elastic IP addresses (1/1)

Filter Elastic IP addresses

Public IPv4 address: 35.75.63.252

Clear filters

Allocate Elastic IP address

<input checked="" type="checkbox"/>	Name	Allocated IPv4 address	Type	Allocation ID	Reverse DNS record
<input checked="" type="checkbox"/>	-	35.75.63.252	Public IP	eipalloc-0ea87789ff382a11f	-

10. Next click on the Associate Elastic IP address button.

EC2

Elastic IP addresses

35.75.63.252

35.75.63.252


Actions

Associate Elastic IP address

Summary

Allocated IPv4 address	Type	Allocation ID	Reverse DNS record
35.75.63.252	Public IP	eipalloc-0ea87789ff382a11f	-
Association ID	Scope	Associated instance ID	Private IP address
-	VPC	-	-
Network interface ID	Network interface owner account ID	Public DNS	NAT Gateway ID
-	-	-	-
Address pool	Network Border Group		
Amazon	ap-northeast-1		

11. Choose your instance you want to associate with it. Keep the Private IP address as specified in the dropdown when clicking for the Private Address. Select the Allow Elastic IP to be reassocciated option if we want to reuse it again for another instance. Then click the associate button.

 Services [Alt+S]


Elastic IP address: 35.75.63.252

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 with an instance that already has an Elastic IP address associated, the previously associated Elastic IP address will be disassociated, but the address will still be allocated to your account. [Learn more](#)


If no private IP address is specified, the Elastic IP address will be associated with the primary private IP address.

Instance

Private IP address

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



Reassociation


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

☐ Allow this Elastic IP address to be reassocciated

Cancel


Associate

12. Now Elastic IP address associated successfully.

 Elastic IP address associated successfully.
Elastic IP address 35.75.63.252 has been associated with instance i-0c97d57fcbc8552fc













EC2 > Elastic IP addresses > 35.75.63.252

35.75.63.252

Actions 

 Associate Elastic IP address

Summary

Allocated IPv4 address  35.75.63.252	Type  Public IP	Allocation ID  eipalloc-0ea87789ff382a11f	Reverse DNS record -
Association ID  eipassoc-0ea0b69d9a1e3cfd3	Scope  VPC	Associated instance ID  i-0c97d57fcbc8552fc	Private IP address  172.31.9.162
Network interface ID  eni-022cc2f260d330004	Network interface owner account ID  331489757083	Public DNS  ec2-35-75-63-252.ap-northeast-1.compute.amazonaws.com	NAT Gateway ID -
Address pool  Amazon	Network Border Group  ap-northeast-1		

13. To check it go back to the instances page. Click on the Instance and see the Public IPv4 address and the Elastic IP address. They should be same. Also notice that the public IPv4 address has turned into a hyperlink to the Elastic IP page.

Instance summary for i-0c97d57fbc8552fc (Suchi14)

Updated less than a minute ago

Instance ID: i-0c97d57fbc8552fc (Suchi14)

IPv6 address: -

Hostname type: IP name: ip-172-31-9-162.ap-northeast-1.compute.internal

Answer private resource DNS name: IPv4 (A)

Auto-assigned IP address: -

IAM Role: -

IMDSv2: Optional

Instance state: **Running**

Private IP DNS name (IPv4 only): ip-172-31-9-162.ap-northeast-1.compute.internal

Instance type: t2.micro

VPC ID: vpc-0989211395deb1e9e

Subnet ID: subnet-07ecbdc2014f714e

Private IPv4 addresses: 172.31.9.162

Public IPv4 DNS: ec2-35-75-63-252.ap-northeast-1.compute.amazonaws.com | [open address](#)

Elastic IP addresses: 35.75.63.252 [Public IP]

AWS Compute Optimizer finding: **Opt-in to AWS Compute Optimizer for recommendations** | [Learn more](#)

Auto Scaling Group name: -

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

▼ Instance details [info](#)

14. Now stop and restart the instance and see if the public IPv4 address changes or not. It will not change.

Hence, we have successfully created an Elastic IP for an instance.

To delete the Elastic IP, follow these steps:

1. Click on the Elastic IP.
2. Click on the actions button.
3. Then click on Disassociate Elastic IP address.

35.75.63.252

Summary

Allocated IPv4 address: 35.75.63.252

Association ID: eipassoc-0ea0b69d9a1e3cfd3

Network interface ID: eni-022cc2f260d330004

Address pool: Amazon

Type: Public IP

Scope: VPC

Network interface owner account ID: 331489757083

Network Border Group: ap-northeast-1

Allocation ID: eipalloc-0ea87789ff382a11f

Associated instance ID: i-0c97d57fbc8552fc

Public DNS: ec2-35-75-63-252.ap-northeast-1.compute.amazonaws.com

Actions: **Associate Elastic IP address**

Release Elastic IP addresses

Disassociate Elastic IP address

Update reverse DNS

Enable transfers

Disable transfers

Accept transfers

172.31.9.162

NAT Gateway ID: -

4. Next again click on the Actions button and this time select Release Elastic IP address.
5. Now you can terminate the instance.