

# Elastic IP Address

Jun 2017

## Introduction

This guide assumes that you know a few basic things about AWS, that you have logged in and created an instance, and can navigate the AWS menus. If you have not created an instance, check this out: [Creating an Amazon AWS EC2 Instance](#)

### From Amazon:

<sxh [text], gutter: false; highlight: 0-0;> An Elastic IP address is a static IPv4 address designed for dynamic cloud computing. An Elastic IP address is associated with your AWS account. With an Elastic IP address, you can mask the failure of an instance or software by rapidly remapping the address to another instance in your account.

An Elastic IP address is a public IPv4 address, which is reachable from the Internet. If your instance does not have a public IPv4 address, you can associate an Elastic IP address with your instance to enable communication with the Internet; for example, to connect to your instance from your local computer. </sxh>

When you create an instance, you are associated an IP Address from a pool of Amazon public addresses. When/if you stop that instance, and restart it you, chances are you will get a different IP Address (as is normal with any DHCP system, depending on lease times of course.)

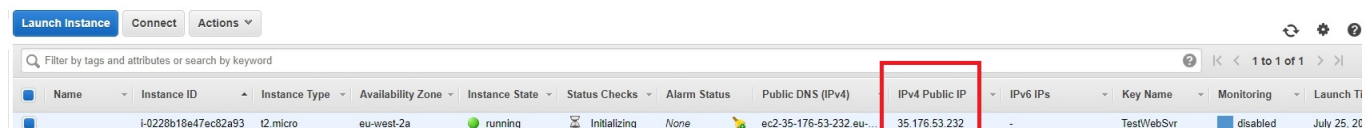
To avoid this we can use a feature called Elastic IP Address. If you are in your first year of free access, you can get the your first Elastic IP Address for free (and I think it stays free, but you have to pay for the instance after one year (or create another account (ssh)).

Your Elastic IP Address has a fixed IP. So no matter how many times you stop/start/restart your instance, you will always have the same Public IP Address, brilliant if you have mapped that to a Domain Name.

**WARNING!!! The Elastic IP Address is only FREE if you USE it!** If you stop your instance, you start to be charged by the hour for any unused Elastic IP Addresses, so if you don't want to pay for them, release them immediately.

## Setup

If your instance is running, it will currently have a dynamic IP Address assigned by Amazon.

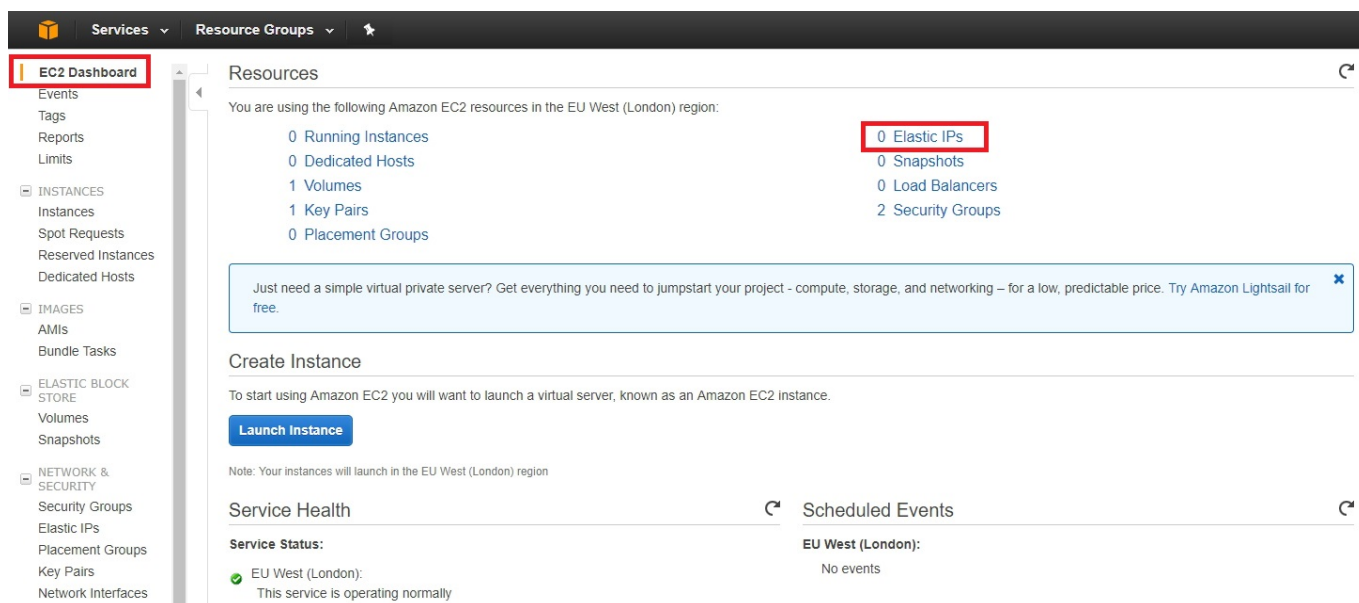


The screenshot shows the AWS Management Console interface. At the top, there are buttons for 'Launch Instance', 'Connect', and 'Actions'. Below these is a search bar. The main area displays a table of EC2 instances. The table has columns for Name, Instance ID, Instance Type, Availability Zone, Instance State, Status Checks, Alarm Status, Public DNS (IPv4), IPv4 Public IP, IPv6 IPs, Key Name, Monitoring, and Launch Time. A red box highlights the 'IPv4 Public IP' column, which shows the value '35.176.53.232' for the instance 'ec2-35-176-53-232 eu-west-2a'.

Name	Instance ID	Instance Type	Availability Zone	Instance State	Status Checks	Alarm Status	Public DNS (IPv4)	IPv4 Public IP	IPv6 IPs	Key Name	Monitoring	Launch Time
	i-0228b18e47ec82a93	t2.micro	eu-west-2a	running	Initializing	None	ec2-35-176-53-232 eu-...	35.176.53.232	-	TestWebSvr	disabled	July 25, 2017

If your instance is running, you have to stop the instance to allow the DHCP address to return to the Amazon pool, and to allow assignment of an [Elastic IP Address](#).

Navigate to the [AWS Console](#).



Services Resource Groups

**EC2 Dashboard**

Events  
Tags  
Reports  
Limits

INSTANCES  
Instances  
Spot Requests  
Reserved Instances  
Dedicated Hosts

IMAGES  
AMIs  
Bundle Tasks

ELASTIC BLOCK STORE  
Volumes  
Snapshots

NETWORK & SECURITY  
Security Groups  
Elastic IPs  
Placement Groups  
Key Pairs  
Network Interfaces

Resources

You are using the following Amazon EC2 resources in the EU West (London) region:

- 0 Running Instances
- 0 Dedicated Hosts
- 1 Volumes
- 1 Key Pairs
- 0 Placement Groups
- 0 Elastic IPs
- 0 Snapshots
- 0 Load Balancers
- 2 Security Groups

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Create Instance

To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 Instance.

Launch Instance

Note: Your instances will launch in the EU West (London) region

Service Health

Service Status:

- EU West (London): This service is operating normally

Scheduled Events

EU West (London): No events

Select the **Elastic IPs** Option.

The next page shows your allocated **Elastic IPs** (you probably won't have any.)



Services Resource Groups

EC2 Dashboard  
Events  
Tags  
Reports  
Limits

INSTANCES  
Instances  
Spot Requests  
Reserved Instances

Allocate new address Actions

Filter by attributes or search by keyword


You do not have any Addresses in this region

Click the Create Address button to create your first Address

Allocate new address

Select **Allocate New Address**.

The next page seems a bit unnecessary.



Services Resource Groups

Addresses > Allocate new address

Allocate new address


Allocate a new Elastic IP address by selecting the scope in which it will be used

\* Required

Cancel Allocate


Select **Allocate**.

Next you will see a confirmation page.




Services ▾

Resource Groups ▾



Addresses > Allocate new address

Allocate new address



New address request succeeded

Elastic IP

35.177.4.81

Close

Here you can see the Public Elastic IP Address you have been allocated (this is not associated with your instance yet.) Select Close.

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