

# Elastic IP Address

Jun 2017

## Introduction

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.)

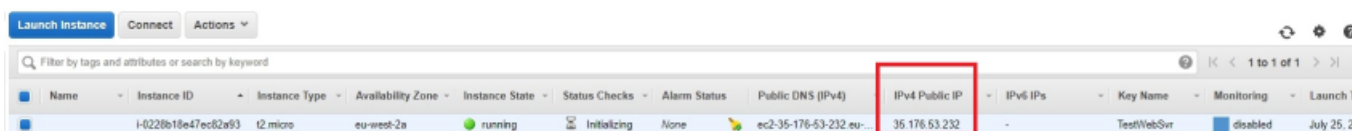
To avoid this we can use a feature called Elastic IP Address. If you are in your first year of free access, you can get the your first Elastic IP Address for free (and I think it stays free, but you have to pay for the instance after one year (or create another account (shh)).

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 for an EC2 instance. The instance is named 'TestWebSrv' and is in the 'running' state. The 'IPv4 Public IP' column shows the address '35.176.53.232', which is highlighted with a red box. The instance is located in the 'eu-west-2a' availability zone.

| 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 | i2.micro    | eu-west-2a    | running           | Initializing   | None          | ec2-35-176-53-232.eu... | 35.176.53.232     | -              | -        | TestWebSrv | 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.

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