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 and instance, check this out: Creating an Amazon AWS EC2 Instance

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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.

Launch Instance	Connect Actions *											Ð		0
Q, Filter by tags and at	ttributes or search by keyv	vord									e) K < 1 to 1 of	1 >	>
Name -	Instance ID 🔺	Instance Type 👻	Availability Zone 👻	Instance State 👻	Status Checks 👻	Alarm Status		Public DNS (IPv4)	IPv4 Public IP	 IPv6 IPs 	 Key Name 	- Monitoring	La	unch Ti
	i-0228b18e47ec82a93	t2.micro	eu-west-2a	running	🛛 Initializing	None	70	ec2-35-176-53-232.eu	35.176.53.232	-	TestWebSvr	disabled	Jul	y 25, 20

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.

WalkerWiki - wiki.alanwalker.uk - http://cameraangle.co.uk/

🎁 Services 🗸	esource Groups 👻 🗙	
EC2 Dashboard	Resources	C
Events Tags	You are using the following Amazon EC2 resources in the EU West (London) region:	
Reports	0 Running Instances 0 Elastic IPs	
Limits	0 Dedicated Hosts 0 Snapshots	
INSTANCES	1 Volumes 0 Load Balancers	
Instances	1 Key Pairs 2 Security Groups	
Spot Requests	0 Placement Groups	
Reserved Instances		
Dedicated Hosts	Just need a simple virtual private server? Get everything you need to jumpstart your project - compute, storage, and networking – for a low, predictable price. Try Amazon Lightsail for	r ×
IMAGES	free.	
AMIs		
Bundle Tasks	Create Instance	
ELASTIC BLOCK STORE	To start using Amazon EC2 you will want to launch a virtual server, known as an Amazon EC2 instance.	
Volumes	Launch Instance	
Snapshots		
NETWORK & SECURITY	Note: Your instances will launch in the EU West (London) region	
Security Groups	Service Health C ⁴ Scheduled Events	C
Elastic IPs		
Placement Groups	Service Status: EU West (London):	
Key Pairs	EU West (London): No events	
Network Interfaces	This service is operating normally	

Select the Elastic IPs Option.

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

前 Services 🗸	Re	esource Groups 🗸 🔭
EC2 Dashboard	•	Allocate new address Actions *
Tags		Q Filter by attributes or search by keyword
Reports		
Limits		You do not have any Addresses in this region
INSTANCES		Click the Create Address button to create your first Address
Instances		
Spot Requests		Allocate new address
Reserved Instances		

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	Cance Allocate

Select Allocate.

Next you will see a confirmation page.

Close

Î	Services 🗸 Resou	rce Groups 🔻	*					
Addre	esses > Allocate new address							
Allo	ocate new addr	ess						
	New address reques	st succeeded		 				
			177.4.81					

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

Once back at the EC2 Console. You need to start your instance.

🎁 Services 🗸	Resource Groups 🐱 🔦				↓ Alan •	London 👻 Support 👻
EC2 Dashboard Events	Launch Instance Connect Action					ତ ବ ଡ
Tags	Q Filter by tags and attributes or s	nect Windows Password			0	$ \langle \langle 1 \text{ to 1 of 1} \rangle \rangle$
Reports Limits	Name Instan	nch More Like This	Instance State v Status Checks v Alarm Statu	s Public DNS (IPv4) v IPv4 Public IP	 IPv6 IPs Key Name 	Monitoring - Launch Ti
INSTANCES	I-0228118	ance Settings Stop	stopped None	🖕	- TestWebSvr	disabled July 23, 20
Instances	Image					
Spot Requests	Netwo	vorking > Terminate				
Reserved Instances	Cloud	dWatch Monitoring >				
Dedicated Hosts						

Select Actions, Instance State then Start.

You will get a prompt asking if you wish to start the instance.

Click Yes, Start.

Back at the EC2 Console you will see your started instance.

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EC2 Dashboard Events	Launch Instance Connect Actions V	0
Tags	Q Filter by tags and attributes or search by keyword	\geq
Reports Limits	Name v Instance ID + Instance Type v Availability Zone v Instance State v Status Checks v Alarm Status Public DNS (IPv4) v IPv4 Public IP v IPv6 IPs v Key Name v Monitoring v Lau	unch Ti
INSTANCES	📕 i-0228b18e47ec82a93 12.micro eu-west-2a 🌒 running 🖾 Initializing None 🃡 ec2-35-177-4-81.eu-we 35.177.4.81 - TestWebSvr 📑 disabled July	ly 25, 20

The IP Address should match the Elastic IP Address you were allocated when you created it earlier.

That is it, pretty simple really. You can now connect to your AWS EC2 Instance using your new Elastic IP Address.

Tes Page for the Apache × C ③ 35.177.4.81 Amazon Linux This page is used to test the proper operation of the Apache HTTP server Apache HTTP server installed at this site is working properly.	AMI Test Page
If you are a member of the general public:	If you are the website administrator:
The fact that you are seeing this page indicates that the website you just visited is either experiencing problems, or is undergoing routine maintenance. If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person. For example, if you experienced problems while visiting www.example.com, you should send e-mail to "webmaster@example.com". For information on Amazon Linux AMI , please visit the Amazon AWS website.	You may now add content to the directory /var/www/html/. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file /etc/httpd/conf.d/welcome.conf. You are free to use the image below on web sites powered by the Apache HTTP Server:

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Last update: 2023/03/09 22:35

