

Assignment : 14

Title : Create an Elastic IP for an instance.

Step 1: Create an EC2 instance as we've created before.

aws

Search

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EC2

Instances

Launch an instance

Info

Refresh

Help

Asia Pacific (Mumbai)

Name and tags

Info

Name

newinst

Add additional tags

▼ Application and OS Images (Amazon Machine Image)

Info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below

Search our full catalog including 1000s of application and OS images

Recents

Quick Start

Amazon Linux

aws

macOS

Mac

Ubuntu

ubuntu

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Microsoft

Red Hat

Red Hat

SUSE Linux

SUSE

Browse more AMIs

Including AMIs from AWS, Marketplace and the Community

▼ Summary

Number of instances

Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.7.2...read more

ami-0f1dcc636b69a6438

Virtual server type (instance type)

t2.micro

Firewall (security group)

New security group

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Key pair name - required

pr-51

Create new key pair

▼ Network settings

Info

Network

Info

vpc-0e2181ce3777a313c

Subnet

Info

No preference (Default subnet in any availability zone)

Auto-assign public IP

Info

Enable

Additional charges apply when outside of free tier allowance

Firewall (security groups)

Info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

Create security group

Select existing security group

Common security groups

Info

Select security groups

secure51 sg-07c04a05d7396992f

Compare security group rules

▼ Summary

Number of instances

Info

1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd6...read more

ami-0e355ddab05955cf57

Virtual server type (instance type)

t2.micro

Firewall (security group)

secure51

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

User data - optional

Info

Upload a file with your user data or enter it in the field.

Choose file

#!/bin/bash
apt-get update
apt-get upgrade
apt-get install -y nginx
systemctl start nginx
systemctl enable nginx
apt-get install -y git
curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash -
apt-get install -y nodejs
git clone https://github.com .aws.git
cd .aws
npm install
node index.js

User data has already been base64 encoded

▼ Summary

Number of instances

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1

Software Image (AMI)

Canonical, Ubuntu, 24.04, amd6...read more

ami-0e355ddab05955cf57

Virtual server type (instance type)

t2.micro

Firewall (security group)

secure51

Storage (volumes)

1 volume(s) - 8 GiB

Cancel

Launch instance

Preview code

aws [Search] [Alt+S] Asia Pacific (Mumbai)

EC2 > Instances > Launch an instance

Success
Successfully initiated launch of instance (i-0cf4255a187c8ad14)

Step 2: Go to instance and Restart (stop and then start again) the created instance.

aws [Search] [Alt+S] Asia Pacific (Mumbai)

EC2 > Instances

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Instance Types

Instances (1/3) Info
Last updated less than a minute ago
Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Alarm status	Availability Zone
inst1	i-01ae128cda6e8c8e0	Terminated	View alarms +	ap-s
inst51	i-0f6971ea8b7ea7caa	Terminated	View alarms +	ap-s
newinst	i-0cf4255a187c8ad14	Running	View alarms +	ap-s

Stop instance
Start instance
Reboot instance
Hibernate instance
Terminate (delete) instance

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EC2 > Instances

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Instance Types
Launch Templates
Spot Requests

Successfully initiated stopping of i-0cf4255a187c8ad14

Instances (1/3) Info
Last updated less than a minute ago
Connect Instance state Actions Launch instances

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Alarm status	Availability Zone
newinst	i-0cf4255a187c8ad14	Stopped	View alarms +	ap-s
inst1	i-01ae128cda6e8c8e0	Terminated	View alarms +	ap-s
inst51	i-0f6971ea8b7ea7caa	Terminated	View alarms +	ap-s

Stop instance
Start instance
Reboot instance
Hibernate instance
Terminate (delete) instance

aws [Search] [Alt+S] Asia Pacific (Mumbai)

EC2 > Instances > i-0cf4255a187c8ad14

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Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
▼ Images
AMIs
AMI Catalog
▼ Elastic Block Store

Instance summary for i-0cf4255a187c8ad14 (newinst) Info
Updated less than a minute ago
Connect Instance state Actions

Instance ID i-0cf4255a187c8ad14	Public IPv4 address 3.111.35.214 open address	Private IPv4 addresses 172.31.10.116
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-111-35-214.ap-south-1.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-10-116.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-10-116.ap-south-1.compute.internal	Elastic IP addresses -
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations. Learn more
Auto-assigned IP address 3.111.35.214 [Public IP]	VPC ID vpc-0e2181ce3777a313c	

Step 3: Go to Elastic IPs and click on Allocate IP to create an Elastic IP and Associate it.

aws [Search] [Alt+S] Asia Pacific (Mumbai)

EC2 > Elastic IP addresses

▼ Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
▼ Network & Security
Security Groups
Elastic IPs

Elastic IP addresses
Find resources by attribute or tag
Allocate Elastic IP address

Name	Allocated IPv4 address	Type	Allocation ID	Revers
No Elastic IP addresses found in this Region				

aws

Search

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Asia Pacific (Mumbai)

EC2 > Elastic IP addresses > Allocate Elastic IP address

1 2 3

Allocate Elastic IP address

Info

Elastic IP address settings

Info

Public IPv4 address pool

☒ Amazon's pool of IPv4 addresses

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

☐ Customer-owned pool of IPv4 addresses created from your on-premises network for use with an Outpost. (option disabled because no customer owned pools found) [Learn more](#)

☐ Allocate using an IPv4 IPAM pool (option disabled because no public IPv4 IPAM pools with AWS service as EC2 were found)

Network border group

Info

Q ap-south-1

X

aws

Search

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Asia Pacific (Mumbai)

EC2 > Elastic IP addresses > 3.109.136.158

1 2 3

EC2

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Launch Templates

Spot Requests

Elastic IP address allocated successfully.

Elastic IP address 3.109.136.158

Associate this Elastic IP address

Elastic IP addresses (1)

Find resources by attribute or tag

Public IPv4 address : 3.109.136.158

Clear filters

1

	Name	Allocated IPv4 address	Type	Allocation ID	Reverse
<input type="checkbox"/>	-	3.109.136.158	Public IP	eipalloc-0680d9481cc977267	-

aws

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Asia Pacific (Mumbai)

EC2 > Elastic IP addresses > 3.109.136.158

1 2 3

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Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

3.109.136.158

Actions

Associate Elastic IP address

Summary

Allocated IPv4 address

3.109.136.158

Association ID

-

Network interface ID

-

Address pool

Amazon

Type

Public IP

Scope

VPC

Network interface owner account ID

-

Network border group

ap-south-1

Allocation ID

eipalloc-0680d9481cc977267

Associated instance ID

-

Public DNS

-

Reverse DNS record

-

Private IP address

-

NAT Gateway ID

-

aws

Search

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Asia Pacific (Mumbai)

EC2 > Elastic IP addresses > 3.109.136.158 > Associate Elastic IP address

1 2 3

Associate Elastic IP address

Choose the instance or network interface to associate to this Elastic IP address (3.109.136.158)

Elastic IP address: 3.109.136.158

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

Q i-0cf4255a187c8ad14

X

Refresh

Private IP address

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

Q 172.31.10.116

X

Reassociation

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

Step 4: Check the Instance IP has been changed as same as the newly created Elastic IP.

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EC2 > Instances > i-0cf4255a187c8ad14

EC2

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 - Savings Plans
 - Reserved Instances
 - Dedicated Hosts
 - Capacity Reservations
- ▼ Images
 - AMIs

Instance summary for i-0cf4255a187c8ad14 (newinst)

Updated less than a minute ago

Instance ID i-0cf4255a187c8ad14	Public IPv4 address 3.109.136.158 open address	Private IPv4 addresses 172.31.10.116
IPv6 address -	Instance state Running	Public IPv4 DNS ec2-3-109-136-158.ap-south-1.compute.amazonaws.com open address
Hostname type IP name: ip-172-31-10-116.ap-south-1.compute.internal	Private IP DNS name (IPv4 only) ip-172-31-10-116.ap-south-1.compute.internal	Elastic IP addresses 3.109.136.158 [Public IP]
Answer private resource DNS name IPv4 (A)	Instance type t2.micro	AWS Compute Optimizer finding Opt-in to AWS Compute Optimizer for recommendations
Auto-assigned IP address -	VPC ID vpc-0e2181ce3777a313c	

So, we've successfully Created an Elastic IP for an instance.

At last Delete(Disassociate > Release) the Elastic IP and the created instance.