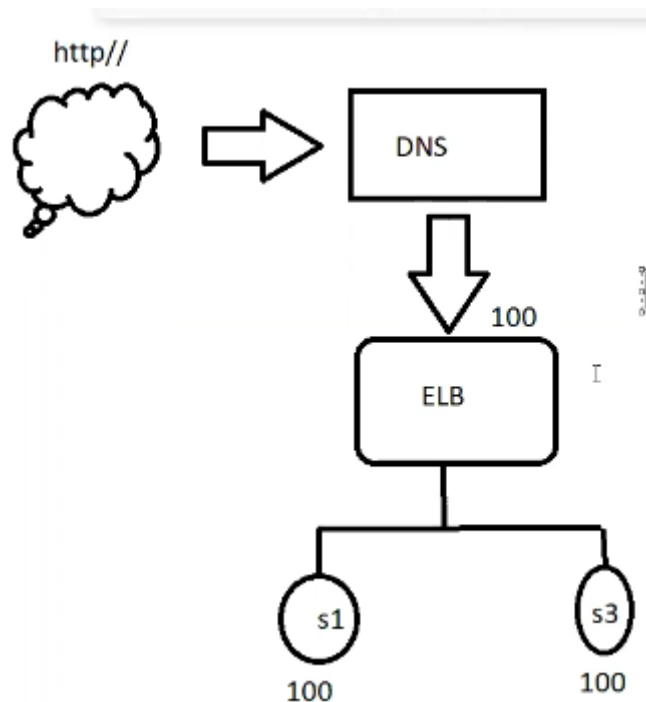
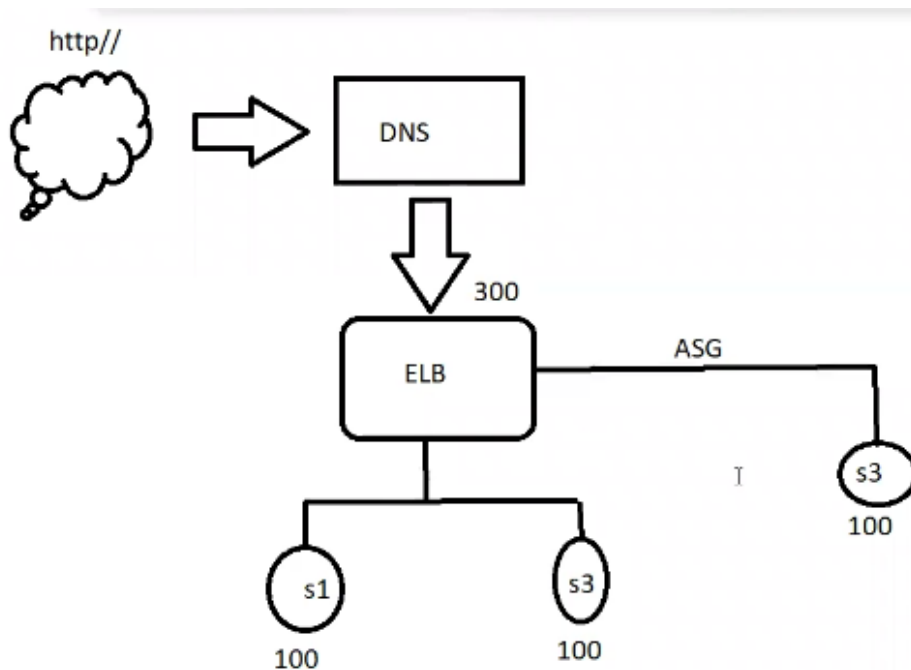


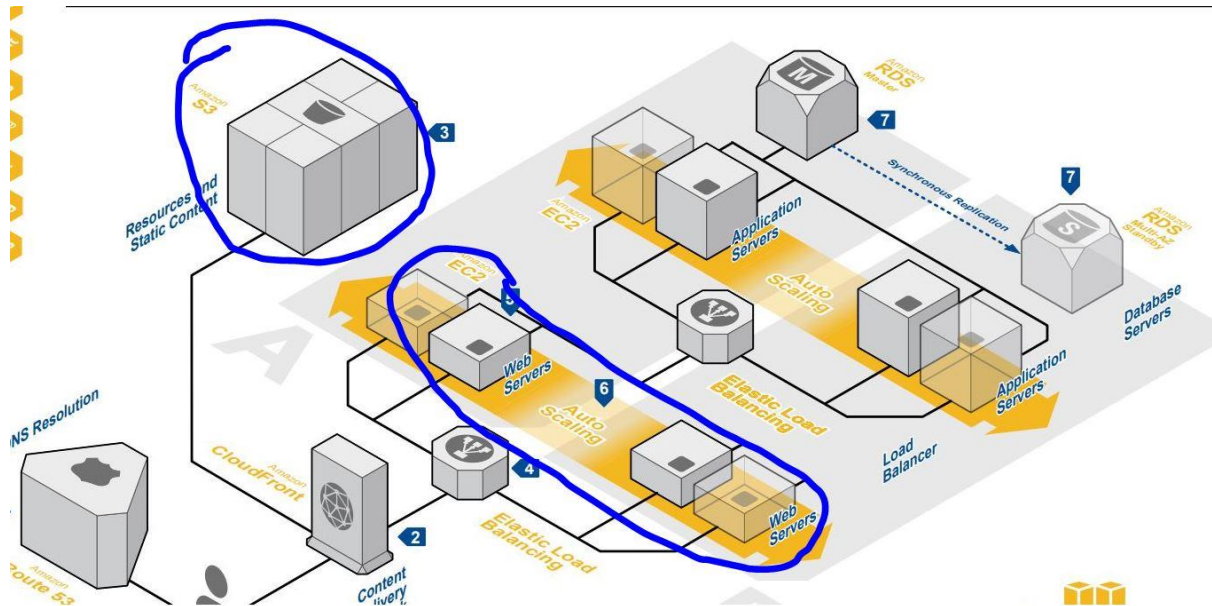
## ELASTIC LOAD BALANCER & AUTO SCALING GROUP



ELB comes under network engineering Request process through DNS went to ELB elastic load balancer divide request to two servers each 100 to 100 if the traffic increases in load balancer (server down) the load balancer will call a new function called auto scaling group ASG will create new server s3 and divide the request 100 the traffic will be created equally this feature is exclusively for cloud AWS not in on premises



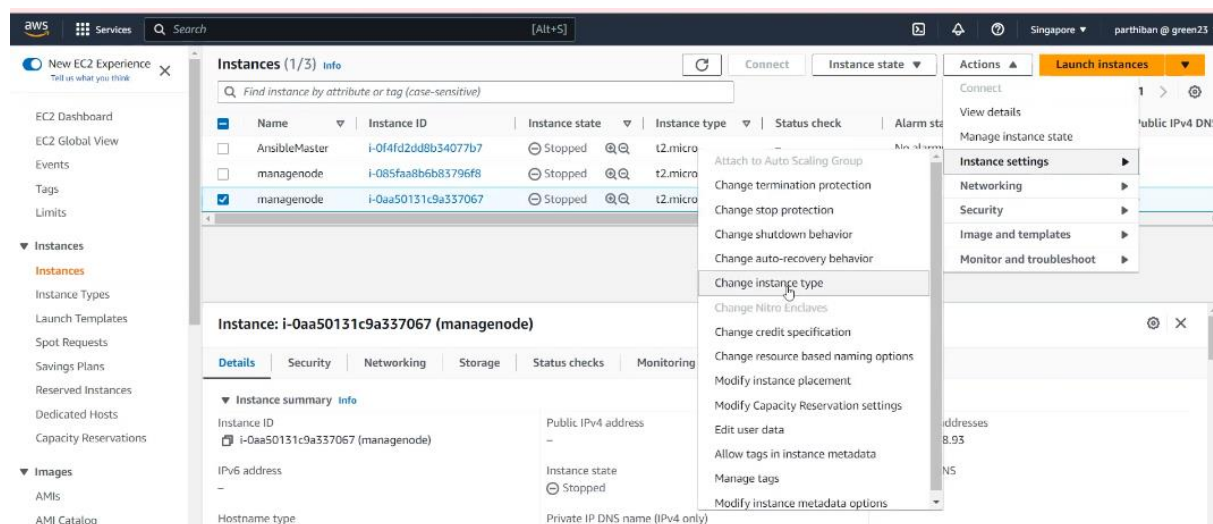
ELB Triggers a request to ASG To create new machine for processing requests the replicated machine is of cost



Blur image is ASG replicated server

Vertical autoscaling

No new machine is created machine capacity is increased eg t2 is increased as t3 ram or storage can be increased it can't be increased while running we need to stop the application to increase the specs. increased application downtime



EC2 > Instances > i-0aa50131c9a337067 > Change instance type

### Change instance type [Info](#)

You can change the instance type only if the current instance type and the instance type that you want are compatible.

Instance ID  
i-0aa50131c9a337067 (managenode)

Current instance type  
t2.micro

Instance type  
t2.micro ▼

☐ EBS-optimized  
EBS-optimized is not supported for this instance type

Cancel Apply

Horizontal autoscaling

Replicated machine is created after ELB Triggers a request to ASG To create new machine for processing requests

Auto scaling group can be separately created anywhere according to the scenarios

## LOAD BALANCER

### ▼ Load Balancing

#### Load Balancers

#### Target Groups

4 KINDS OF LOAD BALANCER

Classic load balancer

Application load balancer

Network load balancer

Gateway load balancer

## Select load balancer type

Elastic Load Balancing supports four types of load balancers: Application Load Balancers, Network Load Balancers, Gateway Load Balancers, and Classic Load Balancers. Choose the load balancer type that meets your needs.  
[Learn more about which load balancer is right for you](#)

### Application Load Balancer

HTTP  
HTTPS

Create

Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

[Learn more >](#)

### Network Load Balancer

TCP  
TLS  
UDP

Create

Choose a Network Load Balancer when you need ultra-high performance, TLS offloading at scale, centralized certificate deployment, support for UDP, and static IP addresses for your application. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.

[Learn more >](#)

### Gateway Load Balancer

IP

Create

Choose a Gateway Load Balancer when you need to deploy and manage a fleet of third-party virtual appliances that support GENEVE. These appliances enable you to improve security, compliance, and policy controls.

[Learn more >](#)

### Classic Load Balancer

PREVIOUS GENERATION  
for HTTP, HTTPS, and TCP

Create

Choose a Classic Load Balancer when you have an existing application running in the EC2-Classical network.

[Learn more >](#)

## CLASSIC LOAD BALANCER

### Step 1: Define Load Balancer

#### Basic Configuration

This wizard will walk you through setting up a new load balancer. Begin by giving your new load balancer a unique name so that you can identify it from other load balancers you might create. You will also need to configure ports and protocols for your load balancer. Traffic from your clients can be routed from any load balancer port to

Load Balancer name:

Create LB inside:

Create an internal load balancer: ☐ [\(what's this?\)](#)

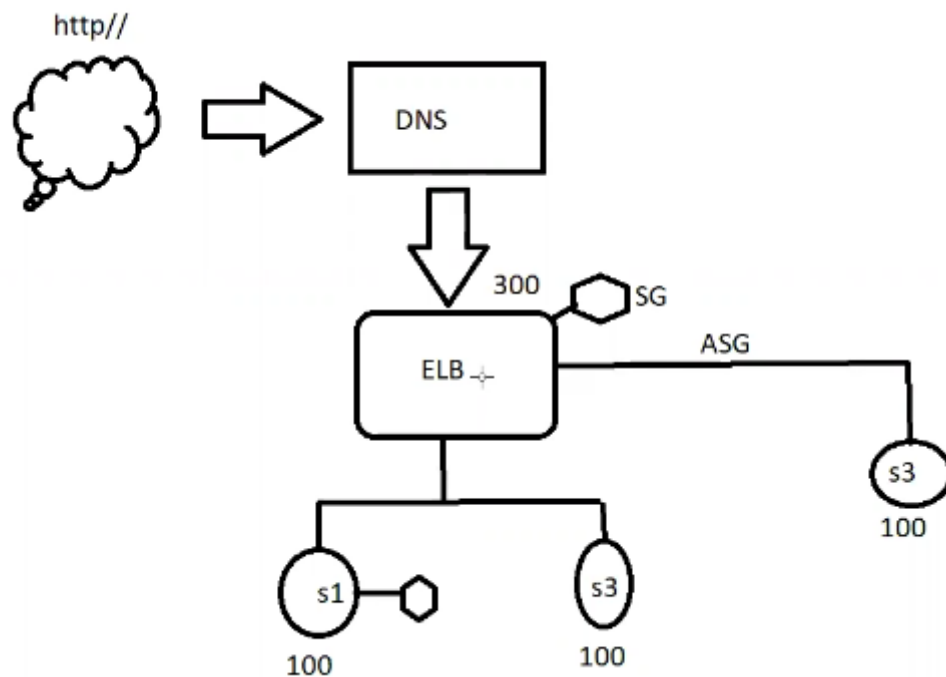
Enable advanced VPC configuration: ☐

Listener Configuration:

Load Balancer Protocol	Load Balancer Port	Instance Protocol	Instance Port
HTTP	80	HTTP	80

[Add](#)

(\*) next assign security groups



(\*) create a security group

Step 2: Assign Security Groups

You have selected the option of having your Elastic Load Balancer inside of a VPC, which allows you to assign security groups to your load balancer. Please select the security groups to assign to this load balancer. This can be changed at any time.

Assign a security group:

Create a new security group

Select an existing security group

Security group name:

quick-create-1

Description:

quick-create-1 created on Sunday, April 23, 2023 at 5:10:18 PM UTC+5:30

Type	Protocol	Port Range	Source
Custom TCP	TCP	80	Custom0.0.0.0/0

Add Rule

Step 2: Assign Security Groups

You have selected the option of having your Elastic Load Balancer inside of a VPC, which allows you to assign security groups to your load balancer. Please select the security groups to assign to this load balancer. This can be changed at any time.

Assign a security group:

Create a new security group

Select an existing security group

Security group name:

ELB\_SG

Description:

ELB\_SG

Type	Protocol	Port Range	Source
SSH	TCP	22	Custom0.0.0.0/0
HTTP	TCP	80	Custom0.0.0.0/0
RDP	TCP	3389	Custom0.0.0.0/0

Add Rule

(\*) NEXT CONFIGURE SECURITY SETTINGS

(\*) NEXT CONFIGURE HEALTH CHECK

1. Define Load Balancer2. Assign Security Groups3. Configure Security Settings4. Configure Health Check5. Add EC2 Instances6. Add Tags7. Review

Step 4: Configure Health Check

Your load balancer will automatically perform health checks on your EC2 instances and only route traffic to instances that pass the health check. If an instance fails the health check, it is automatically removed from the load balancer. Customize the health check to meet your specific needs.

Ping Protocol

HTTP

Ping Port

80

Ping Path

/index.html

Advanced Details

Response Timeout

5

seconds

Interval

30

seconds

Unhealthy threshold

2

Healthy threshold

10

(\*) ADD EC2 INSTANCES

1. Define Load Balancer2. Assign Security Groups3. Configure Security Settings4. Configure Health Check5. Add EC2 Instances6. Add Tags7. Review

Step 5: Add EC2 Instances

The table below lists all your running EC2 instances. Check the boxes in the Select column to add those instances to this load balancer.

VPC: vpc-02ee4aa7849e30d7f (172.31.0.0/16)

Instance	Name	State	Security groups	Zone	Subnet ID	Subnet CIDR
<input type="checkbox"/>	i-0a0b5037166464c7	stopped	launch-wizard-5	ap-south-east-1	subnet-06a7b741c	172.31.32.0/20
<input type="checkbox"/>	i-0b2c4095477debf193	stopped	launch-wizard-3	ap-south-east-1	subnet-01a8b4a3c	172.31.16.0/20
<input type="checkbox"/>	i-01567c2ee7ee5e32d3	stopped	launch-wizard-2	ap-south-east-1	subnet-01a8b4a3c	172.31.16.0/20

Availability Zone Distribution

Enable Cross-Zone Load Balancing

Enable Connection Draining

300

seconds

(\*) ADD TAGS

1. Define Load Balancer2. Assign Security Groups3. Configure Security Settings4. Configure Health Check5. Add EC2 Instances6. Add Tags7. Review

Step 6: Add Tags

Apply tags to your resources to help organize and identify them.

A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver. [Learn more](#) about tagging your Amazon EC2 resources.

Key	Value

Create Tag

## (\*) REVIEW AND CREATE

1. Define Load Balancer2. Assign Security Groups3. Configure Security Settings4. Configure Health Check5. Add EC2 Instances6. Add Tags7. Review

Step 7: Review

Please review the load balancer details before continuing

Define Load Balancer

Load Balancer name: CLB  
Subnet: internet-facing  
Port Configuration: 80 (HTTP) forwarding to 80 (HTTP)

Edit load balancer definition

Configure Health Check

Ping Target: HTTP:80/index.html  
Timeout: 5 seconds  
Interval: 30 seconds  
Unhealthy threshold: 2  
Healthy threshold: 10

Edit health check

Add EC2 Instances

Cross zone load balancing: Enabled  
Connections draining: Enabled, 300 seconds  
Instances:

Edit instances

VPC Information

VPC: vpc-02ce4aa3946e50cd1  
Subnets: subnet-0667618d01fa3a30f, subnet-01a8648dbdb625e6f, subnet-02aee0a870ba6b574

Edit subnets

Security groups

Security groups: ELB\_SG

Edit security groups

Cancel

Previous

Create

## (\*) CREATE LOAD BALANCER

Load Balancer Creation Status

Successfully created load balancer

Load balancer CLB was successfully created.  
Note: It may take a few minutes for your instances to become active in the new load balancer.

Close

Create Load BalancerActions

Find by tags and attributes or search by keyword

1 to 1 of 1

Name	DNS name	State	VPC ID	Availability Zones	Type	Created At	Monitoring
CLB	CLB-282350807.ap-southea...		vpc-02ce4aa3946e50cd1	ap-southeast-1b, ap-so...	classic	April 23, 2023 at 5:39:25 PM...	

## (\*) GO TO INSTANCE SELECT A MACHINE --- ACTIONS ---IMAGE AND TEMPLATES – CREATE IMAGE

Instances (1/3) info

Find instance by attribute or tag (case-sensitive)

1 to 1 of 1

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IPv4 DNS	Public IPv4 ...	Elastic IP	IPv6 IPs	Monitoring	Actions
linux snap	i-0b6b8f507166464c3	Stopped	t2.micro		No alarms	ap-southeast-1b					disabled	View details
linux	i-0b343d96477e8e193	Stopped	t2.micro		No alarms	ap-southeast-1a					disabled	Manage instance state
linux	i-0b343d96477e8e193	Stopped	t2.micro		No alarms	ap-southeast-1a					disabled	Instance settings
linux	i-0b343d96477e8e193	Stopped	t2.micro		No alarms	ap-southeast-1a					disabled	Networking
linux	i-0b343d96477e8e193	Stopped	t2.micro		No alarms	ap-southeast-1a					disabled	Security
linux	i-0b343d96477e8e193	Stopped	t2.micro		No alarms	ap-southeast-1a					disabled	Image and templates
linux	i-0b343d96477e8e193	Stopped	t2.micro		No alarms	ap-southeast-1a					disabled	Monitor and troubleshoot

Create image

Create template from instance

Launch more like this

(\*) CREATE IMAGE

EC2 > Instances > i-010e7a24ae5aa3253 > Create image

Create image

info

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID

i-010e7a24ae5aa3253 (windows1)

Image name

Enter image name

Maximum 127 characters. Can't be modified after creation.

Image description - optional

Image description

Maximum 255 characters

No reboot

☐ Enable

Instance volumes

Storage type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/...	Create new snapshot fr...	30	EBS General Purpose S...	100		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable
EBS	xvdb	Create new snapshot fr...	10	EBS General Purpose S...	3000	125	<input type="checkbox"/> Enable	<input type="checkbox"/> Enable

Add volume

During the image creation process, Amazon EC2 creates a snapshot of each of the above volumes.

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.

☒ Tag image and snapshots together

Tag the image and the snapshots with the same tag.

☐ Tag image and snapshots separately

Tag the image and the snapshots with different tags.

No tags associated with the resource.

Add new tag

You can add up to 50 more tags.

Cancel

Create image

## (\*) CREATE LAUNCH CONFIGURATION

**Launch configuration name**

Name

LG

**Amazon machine image (AMI)** [Info](#)

AMI

Choose an AMI

Q ami-063e1495af50e6fd5

amzn2-ami-kernel-5.10-hvm-2.0.20230404.1-x86\_64-gp2  
[ami-063e1495af50e6fd5](#)  
architecture: x86\_64 virtualization: hvm

Instance type

Choose instance type

## (\*) LAUNCH INSTANCE

▼

**Choose instance type** ×

Q t2

×

	Instance type ▲	vCPUs ▼	Memory (GiB) ▼	Storage (GB) ▼	EBS optimized available	Network performance ▼
<input type="radio"/>	t2.nano	1	0.5	EBS Only	-	Low to Moderate
<input type="radio"/>	t2.small	1	2	EBS Only	-	Low to Moderate
<input type="radio"/>	t2.xlarge	4	16	EBS Only	-	Moderate
<input type="radio"/>	t2.medium	2	4	EBS Only	-	Low to Moderate
<input checked="" type="radio"/>	t2.micro	1	1	EBS Only	-	Low to Moderate
<input type="radio"/>	t2.large	2	8	EBS Only	-	Low to Moderate
<input type="radio"/>	t2.2xlarge	8	32	EBS Only	-	Moderate

Close

Choose

by Auto Scaling g



## (\*) ADVACED OPTION -- USERDATA

User data [Info](#)

☒ As text  
☐ As file

```
yum install httpd -y  
service httpd start  
echo "This is my CLASSIC LOAD BALANCER Application" > /var/www/html/index.html
```

## (\*) EBS VOLUME STORAGE

EBS volumes Remove

<input type="checkbox"/>	Volume type	Devices	Snapshot	Size (GiB)	Volume type
<input checked="" type="checkbox"/>	Root	/dev/xvda	snap-04720489baa4c7a79	8	General purpose SSD (g

[+ Add new volume](#)

## (\*) SECURITY GROUP ELB-SG

Assign a security group

☐ Create a new security group  
☒ Select an existing security group

**Security groups** Copy to new View rules

Q ELB

<input checked="" type="checkbox"/>	Security group ID	Name	VPC ID	Description
<input checked="" type="checkbox"/>	sg-0bb5a3656ce261126	ELB_SG	vpc-02ce4aa3940e5bcd1	ELB_SG

**⚠** Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

## (\*) KEY PAIR

**Key pair (login)** [Info](#)

Key pair options

Choose an existing key pair

Existing key pair

linux

☒ I acknowledge that I have access to the selected private key file (linux.pem), and that without this file, I won't be able to log into my instance.

[Cancel](#) [Create launch configuration](#)

## (\*) CREATE LAUNCH CONFIGURATION

Recommendation to not use launch configurations

Amazon EC2 Auto Scaling no longer adds support for new EC2 instance types after December 31, 2022. We recommend that customers using launch configurations migrate to launch templates. For more information, see the documentation.

Successfully created launch configuration LG

EC2 > Launch configurations

Launch configurations (1) info

Search launch configurations

Name

AMI ID

Instance type

Spot price

Creation time

LG

ami-063e1495af50e6fd5

t2.micro

-

Sun Apr 23 2023 18:10:27 GMT+0530 (India Standard Time)

## (\*) CREATE AUTO SCALING GROUP

EC2 > Launch configurations

Launch configurations (1/1) info

Search launch configurations

Name

AMI ID

Instance type

Spot price

Creation time

LG

ami-063e1495af50e6fd5

t2.micro

-

Sun Apr 23 2023 18:10:27 GMT+0530 (India Standard Time)

Actions

Create Auto Scaling group

Delete launch configuration

Copy launch configuration

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1

Choose launch template or configuration

Step 2

Choose instance launch options

Step 3 - optional

Configure advanced options

Step 4 - optional

Configure group size and scaling policies

Step 5 - optional

Add notifications

Step 6 - optional

Add tags

Step 7

Review

Choose launch template or configuration

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group. If you currently use launch configurations, you might consider migrating to launch templates.

Name

Auto Scaling group name

Enter a name to identify the group.

ASG

Must be unique to this account in the current Region and no more than 255 characters.

Launch configuration

Switch to launch template

Instead of using launch configurations to create your EC2 Auto Scaling groups, we recommend that you use launch templates and make use of the Auto Scaling guidance option. For more information on migrating launch configurations and using launch templates, see the documentation.

Launch configuration

Choose a launch configuration that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

LG

Create a launch configuration

Launch configuration

LG

AMI ID

ami-063e1495af50e6fd5

Date created

Sun Apr 23 2023 18:10:27 GMT+0530 (India Standard Time)

Security groups

sg-0bb5a3656ce261126

Instance type

t2.micro

Key pair name

linux

Cancel

Next

Step 1  
[Choose launch template or configuration](#)

Step 2  
**Choose instance launch options**

Step 3 - optional  
[Configure advanced options](#)

Step 4 - optional  
[Configure group size and scaling policies](#)

Step 5 - optional  
[Add notifications](#)

Step 6 - optional  
[Add tags](#)

Step 7  
[Review](#)

## Choose instance launch options [Info](#)

Choose the VPC network environment that your instances are launched into, and customize the instance types and purchase options.

### Network [Info](#)

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

#### VPC

Choose the VPC that defines the virtual network for your Auto Scaling group.

vpc-02ce4aa3940e5bcd1  
172.31.0.0/16 Default

[Create a VPC](#)

#### Availability Zones and subnets

Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

Select Availability Zones and subnets

ap-southeast-1a | subnet-01a864d3ddbc625e9  
172.31.16.0/20 Default

ap-southeast-1b | subnet-0667b18d01fafa3ff  
172.31.32.0/20 Default

ap-southeast-1c | subnet-02aee0e87dba6fc74  
172.31.0.0/20 Default

[Create a subnet](#)

Cancel

Skip to review

Previous

Next

Step 1  
[Choose launch template or configuration](#)

Step 2  
[Choose instance launch options](#)

Step 3 - optional  
**Configure advanced options**

Step 4 - optional  
[Configure group size and scaling policies](#)

Step 5 - optional  
[Add notifications](#)

Step 6 - optional  
[Add tags](#)

Step 7  
[Review](#)

## Configure advanced options - optional [Info](#)

Integrate your Auto Scaling group with other services to distribute network traffic across multiple servers using a load balancer or to establish service-to-service communications using VPC Lattice. You can also set options that give you more control over health check replacements and monitoring.

### Load balancing [Info](#)

Use the options below to attach your Auto Scaling group to an existing load balancer, or to a new load balancer that you define.

☐ No load balancer

Traffic to your Auto Scaling group will not be fronted by a load balancer.

☒ Attach to an existing load balancer

Choose from your existing load balancers.

☐ Attach to a new load balancer

Quickly create a basic load balancer to attach to your Auto Scaling group.

### Attach to an existing load balancer

Select the load balancers that you want to attach to your Auto Scaling group.

☐ Choose from your load balancer target groups

This option allows you to attach Application, Network, or Gateway Load Balancers.

☒ Choose from Classic Load Balancers

#### Classic Load Balancers

Select Classic Load Balancers

CLB  
Classic Load Balancer

### VPC Lattice integration options [Info](#)

To improve networking capabilities and scalability, integrate your Auto Scaling group with VPC Lattice. VPC Lattice facilitates communications between AWS services and helps you connect and manage your applications across compute services in AWS.

#### Select VPC Lattice service to attach

☒ No VPC Lattice service

VPC Lattice will not manage your Auto Scaling group's network access and connectivity with other services.

☐ Attach to VPC Lattice service

Incoming requests associated with specified VPC Lattice target groups will be routed to your Auto Scaling group.

[Create new VPC Lattice service](#)

### Health checks

Health checks increase availability by replacing unhealthy instances. When you use multiple health checks, all are evaluated, and if at least one fails, instance replacement occurs.

#### EC2 health checks

☒ Always enabled

Step 2

Choose instance launch options

Step 3 - optional

Configure advanced options

Step 4 - optional

Configure group size and scaling policies

Step 5 - optional

Add notifications

Step 6 - optional

Add tags

Step 7

Review

Group size - optional [Info](#)

Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.

Desired capacity

2

Minimum capacity

1

Maximum capacity

3

Scaling policies - optional

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. [Info](#)

☒ Target tracking scaling policy

Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.

☐ None

Scaling policy name

Target Tracking Policy

Metric type

Average CPU utilization

Target value

1

Instances need

10

seconds warm up before including in metric

☐ Disable scale in to create only a scale-out policy

EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1

Choose launch template or configuration

Step 2

Choose instance launch options

Step 3 - optional

Configure advanced options

Step 4 - optional

Configure group size and scaling policies

Step 5 - optional

Add notifications

Step 6 - optional

Add tags

Step 7

Review

Add notifications - optional [Info](#)

Send notifications to SNS topics whenever Amazon EC2 Auto Scaling launches or terminates the EC2 instances in your Auto Scaling group.

Add notification

Cancel

Skip to review

Previous

Next

[EC2](#) > [Auto Scaling groups](#) > Create Auto Scaling group

Step 1  
[Choose launch template or configuration](#)

Step 2  
[Choose instance launch options](#)

Step 3 - optional  
[Configure advanced options](#)

Step 4 - optional  
[Configure group size and scaling policies](#)

Step 5 - optional  
[Add notifications](#)

Step 6 - optional  
[Add tags](#)

Step 7  
**Review**

## Review [Info](#)

Step 1: Choose launch template or configuration Edit

**Group details**

Auto Scaling group name  
ASG

Launch configuration  
[LG](#)

Step 2: Choose instance launch options Edit

**Network**

Network

VPC  
[vpc-02ce4aa3940e5bcd1](#)

Availability Zone	Subnet	
ap-southeast-1a	<a href="#">subnet-01a864d3ddbc625e9</a>	172.31.16.0/20
ap-southeast-1b	<a href="#">subnet-0667b18d01fafa3ff</a>	172.31.32.0/20
ap-southeast-1c	<a href="#">subnet-02aee0e87dba6fc74</a>	172.31.0.0/20

Step 3: Configure advanced options Edit

**Load balancing**

Load balancer 1

Name	Type	Target group
<a href="#">CLB</a>	Classic	-

## (\*) INSTANCE ID IN LOAD BALANCERS

[EC2](#) | [Load balancers](#) | CLB

Load balancer: **CLB**

Description **Instances** Health check Listeners Monitoring Tags Migration

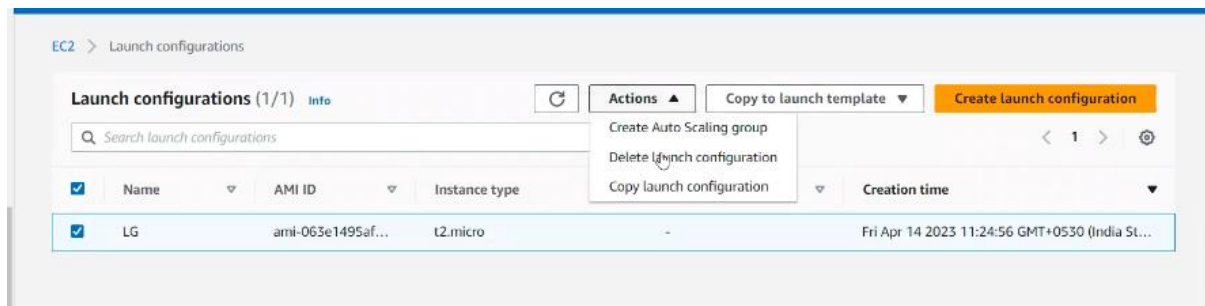
Connection Draining: Enabled, 300 seconds ([Edit](#))

[Edit Instances](#)

Instance ID	Name	Availability Zone	Status	Actions
i-0505b392b5fa74b01		ap-southeast-1b	OutOfService ⓘ	<a href="#">Remove from Load Balancer</a>
i-03990dc23d985f898		ap-southeast-1a	OutOfService ⓘ	<a href="#">Remove from Load Balancer</a>

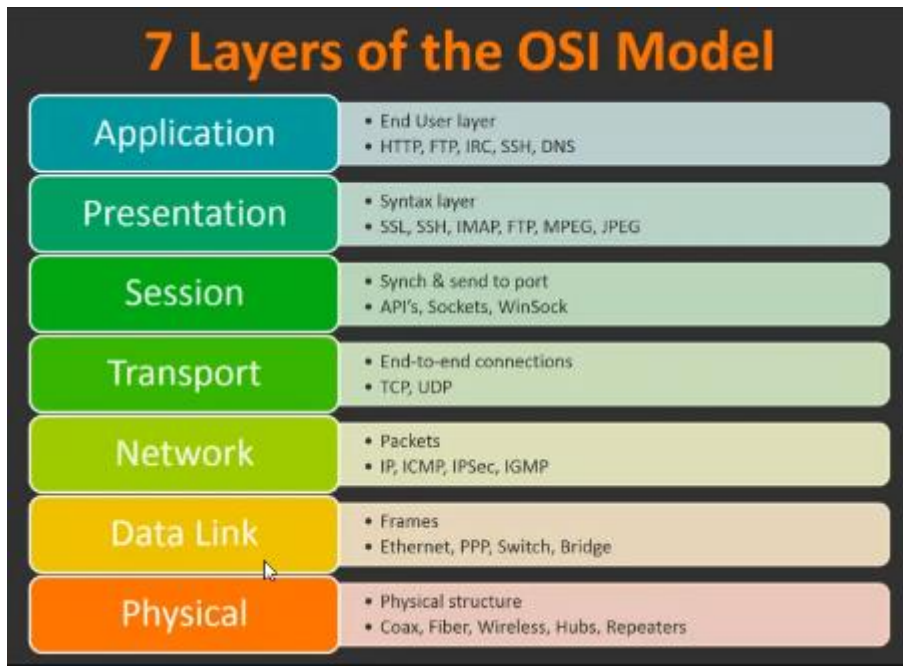
Classic load balancer works on round robin algorithm

(\*) delete autoscaling group



## APPLICATION LOAD BALANCER

Application load balancer works on 7<sup>th</sup> layer in OSI model



Application Load Balancer

HTTP  
HTTPS

Create

Choose an Application Load Balancer when you need a flexible feature set for your web applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

[Learn more >](#)

## Create Application Load Balancer Info

The Application Load Balancer distributes incoming HTTP and HTTPS traffic across multiple targets such as Amazon EC2 instances, microservices, and containers, based on request attributes. When the load balancer receives a connection request, it evaluates the listener rules in priority order to determine which rule to apply, and if applicable, it selects a target from the target group for the rule action.

## Step 1: Configure Load Balancer

### Basic Configuration

To configure your load balancer, provide a name, select a scheme, specify one or more listeners, and select a network. The default configuration is an Internet-facing load balancer in the selected network with a listener that receives HTTP traffic on port 80.

**Name** ⓘ

**Scheme** ⓘ ☒ internet-facing ☐ internal

**IP address type** ⓘ

### Listeners

A listener is a process that checks for connection requests, using the protocol and port that you configured.

Load Balancer Protocol	Load Balancer Port
HTTP	80

[Add listener](#)

### Availability Zones

Specify the Availability Zones to enable for your load balancer. The load balancer routes traffic to the targets in these Availability Zones only. You can specify only one subnet per Availability Zone. You must specify subnets from at least two Availability Zones to increase the availability of your load balancer.

**VPC** ⓘ

**Availability Zones**

- ☒ **ap-southeast-1a**  **IPv4 address** ⓘ Assigned by AWS
- ☒ **ap-southeast-1b**  **IPv4 address** ⓘ Assigned by AWS
- ☒ **ap-southeast-1c**  **IPv4 address** ⓘ Assigned by AWS

### Add-on services

Additional AWS services can be integrated with this load balancer at launch when you enable them below. You can also add these and other services after your load balancer is created by reviewing the "Integrated Services" tab for the selected load balancer.

**AWS Global Accelerator** ☐ Create an accelerator to get static IP addresses and improve the performance and availability of your application. [Learn more](#)  
Additional charges apply

[Cancel](#) [Next: Configure Security Settings](#)

Security Group ID	Name	Description	Actions
<input type="checkbox"/> sg-09f2bbd6ed4ccf9dd	default	default VPC security group	<a href="#">Copy to new</a>
<input checked="" type="checkbox"/> sg-0bb5a3656ce261126	ELB_SG	ELB_SG	<a href="#">Copy to new</a>

**(\*) LAUNCH AN INSTANCE 2 INSTANCES**



### (\*) security group ELB SG

▼ Network settings [Info](#)

Edit

Network [Info](#)  
vpc-02ce4aa3940e5bcd1

Subnet [Info](#)  
No preference (Default subnet in any availability zone)

Auto-assign public IP [Info](#)  
Enable

**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

Security groups [Info](#)  

Select security groups ▼

ELB\_SG sg-0bb5a3656ce261126 ✕  
VPC: vpc-02ce4aa3940e5bcd1

 [Compare security group rules](#)

### (\*) advance detail user data

User data - optional [Info](#)

Enter user data in the field.

```
#!/bin/bash
yum install httpd -y
service httpd start
mkdir /var/www/html/facebook
echo "This is my Facebook Application" > /var/www/html/facebook/index.html
```


I

(\*) like that create another instance named instagram

### User data - *optional* [Info](#)

Enter user data in the field.

```
#!/bin/bash
yum install httpd -y
service httpd start
mkdir /var/www/html/instagram
echo "This is my instagram Application" > /var/www/html/instagram
/index.html
```



## Step 4: Configure Routing

Your load balancer routes requests to the targets in this target group using the protocol and port that you specify here. It also performs health checks on the targets using these settings. The target group you specify in this step will apply to all of the listeners configured on this load balancer. You can edit or add listeners after the load balancer is created.

### Target group

Target group

New target group

Name

FBtg

Target type

Instance

IP

Lambda function

Protocol

HTTP

Port

80

Protocol version

HTTP1

HTTP2

gRPC

Send requests to targets using HTTP/1.1. Supported when the request protocol is HTTP/1.1 or HTTP/2.

Send requests to targets using HTTP/2. Supported when the request protocol is HTTP/2 or gRPC, but gRPC-specific features are not available.

Send requests to targets using gRPC. Supported when the request protocol is gRPC.

### Health checks

Protocol

HTTP

Path

/facebook/index.html

#### Advanced health check settings

Port

traffic port

override

Healthy threshold

5

Unhealthy threshold

2

Timeout

5

seconds

Interval

30

seconds

Success codes

200

Cancel

Previous

Next: Register Targets

## Step 5: Register Targets

Register targets with your target group. If you register a target in an enabled Availability Zone, the load balancer starts routing requests to the targets as soon as the registration process completes and the target passes the initial health checks.

### Registered targets

To deregister instances, select one or more registered instances and then click Remove.

Remove

<input type="checkbox"/>	Instance	Name	Port	State	Security groups	Zone
No instances available.						

### Instances

To register additional instances, select one or more running instances, specify a port, and then click Add. The default port is the port specified for the target group. If the instance is already registered on the specified port, you must specify a different port.

Add to registered

on port 80

Search Instances

X

<input type="checkbox"/>	Instance	Name	State	Security groups	Zone	Subnet ID	Subnet CIDR
<input type="checkbox"/>	i-041803ae8a886e...	FACEBOOK	running	ELB_SG	ap-southeast-1a	subnet-01a864d3ddbc625e9	172.31.16.0/20
<input type="checkbox"/>	i-0b5d62634d62e7...		running	ELB_SG	ap-southeast-1a	subnet-01a864d3ddbc625e9	172.31.16.0/20

Remove

	Instance	Name	Port	State	Security groups	Zone
	i-041803ae8a886ec9f	FACEBOOK	80	 running	ELB_SG	ap-southeast-1a
	i-0b5d62634d62e7c9a		80	 running	ELB_SG	ap-southeast-1a

Rules

+

✎

⌵

⌶

ALB | HTTP:80

↺

ⓘ

Click a location for your new rule. Each rule must include one action of type forward, redirect, fixed response.

CancelSave

ALB | HTTP:80 (2 rules)

Rule limits for condition values, wildcards, and total rules.

Insert Rule

RULE ID

IF (all match)

THEN

1

A rule ID (ARN) is generated when you save your rule.

✎ Path is /facebook\*

+ Add condition

1. Forward to...

Target group : Weight (0-999)

FBtg

1

×

Traffic distribution 100%

Select a target group

0

×

Group-level stickiness

✓

+ Add action

last

HTTP 80: default action

This rule cannot be moved or deleted

IF

✓ Requests otherwise not routed

THEN

Forward to

FBtg: 1 (100%)

Group-level stickiness: Off

(\*) load balancer is active copy the DNS name and paste it in browser

My Meeting

Post Attend

Auto Scaling

Load balan

Load balan

Target gro

EC2 Manag

(7) WhatsA

Home Lo

alb-176120

Not secure

alb-1761203690.ap-southeast-1.elb.amazonaws.com/facebook/

1

New Tab

Gmail

YouTube

Maps

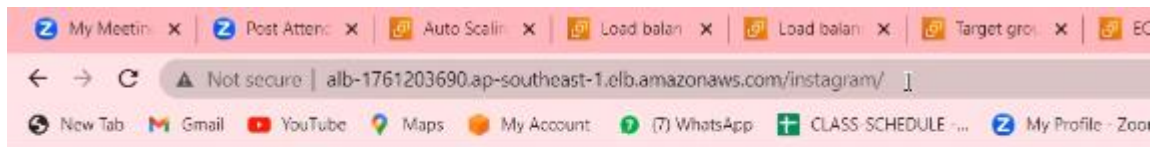
My Account

(7) WhatsApp

CLASS SCHEDULE ...

My Profile - Zoom

This is my Facebook Application



This is my Instagram Application