

AWS Task1

Create Load Balancers

Load balancers

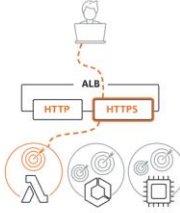
Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

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	Name	DNS name	State	VPC ID	Availability Zones	Type
No load balancers						

Application Load Balancers

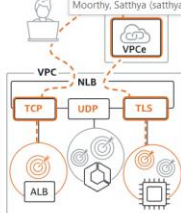
Application Load Balancer



Choose an Application Load Balancer when you need a flexible feature set for your 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.

Create


Network Load Balancer



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 applications. Operating at the connection level, Network Load Balancers are capable of handling millions of requests per second securely while maintaining ultra-low latencies.

Create

Gateway Load Balancer



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.

Create

Basic Configuration

Create Application Load Balancer

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.

► How Application Load Balancers work

Basic configuration

Load balancer name

Name must be unique within your AWS account and can't be changed after the load balancer is created.

A maximum of 32 alphanumeric characters including hyphens are allowed, but the name must not begin or end with a hyphen.

Scheme

Scheme can't be changed after the load balancer is created.

☒ Internet-facing

An internet-facing load balancer routes requests from clients over the internet to targets. Requires a public subnet. [Learn more](#)

☐ Internal

An internal load balancer routes requests from clients to targets using private IP addresses. Compatible with the IPv4 and Dualstack IP address types.

Load balancer IP address type

Select the front-end IP address type to assign to the load balancer. The VPC and subnets mapped to this load balancer must include the selected IP address types. Public IPv4 addresses have an additional cost.

☒ IPv4

Includes only IPv4 addresses.

Create Target Group

EC2 > Target groups > Create target group

Step 1

Specify group details

Step 2

Register targets

Specify group details

Your load balancer routes requests to the targets in a target group and performs health checks on the targets.

Basic configuration

Settings in this section can't be changed after the target group is created.

Choose a target type

☒ Instances

- Supports load balancing to instances within a specific VPC.
- Facilitates the use of [Amazon EC2 Auto Scaling](#) to manage and scale your EC2 capacity.

☐ IP addresses

- Supports load balancing to VPC and on-premises resources.
- Facilitates routing to multiple IP addresses and network interfaces on the same instance.

Available instances (2)

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<input type="checkbox"/>	Instance ID	Name	State	Security groups	Zone	Private IPv4 address	Subnet
<input type="checkbox"/>	i-0eedfff1dff712837	server2	Running	launch-wizard-1	ap-southeast-1b	172.31.31.170	subnet-
<input type="checkbox"/>	i-0dbcf988ad2bebcf8	Linux server	Running	launch-wizard-1	ap-southeast-1b	172.31.21.103	subnet-

0 selected

Ports for the selected instances

Ports for routing traffic to the selected instances.

1-65535 (separate multiple ports with commas)

Include as pending below

2 selections are now pending below. Include more or register targets when ready.

Review targets

Targets (2)

Show only pending

Remove all pending

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Instance ID	Name	Port	State	Security groups	Zone	Private IPv4 address	Subnet ID	Launch time
i-0eedfff1dff712837	server2	80	Running	launch-wizard-1	ap-southeast-1b	172.31.31.170	subnet-04a1d23d92dda50d	November 12, 2024, 10:42 (UTC+08:00)
i-0dbcf988ad2bebcf8	Linux server	80	Running	launch-wizard-1	ap-southeast-1b	172.31.21.103	subnet-04a1d23d92dda50d	November 12, 2024, 10:42 (UTC+08:00)

Final Load Balance view

EC2 > Load balancers

Load balancers (1/1)

Elastic Load Balancing scales your load balancer capacity automatically in response to changes in incoming traffic.

Filter load balancers

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<input checked="" type="checkbox"/>	Name	DNS name	State	VPC ID	Availability Zones	Type	Date created
<input checked="" type="checkbox"/>	Demo-ELB	Demo-ELB-626042843.ap-...	Active	vpc-03245ae1518127f...	Availability Zones	application	November 12, 2024, 10:45 (UTC+08:00)

Load balancer: Demo-ELB

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Details

<div>Load balancer type</div> <div>Application</div> <div>Scheme</div> <div>Internet-facing</div>	<div>Status</div> <div> Active</div> <div>Hosted zone</div> <div>Z1LM591P8CMLE5</div>	<div>VPC</div> <div>vpc-03245ae1518127fe8 </div> <div>Availability Zones</div> <div>subnet-04a1d23d92dda50d ap-southeast-1b (apse1-az1)</div> <div>subnet-0462c75d3a3860998 ap-southeast-1a (apse1-az2)</div>	<div>Load balancer IP address type</div> <div>IPv4</div> <div>Date created</div> <div>November 12, 2024, 10:45 (UTC+08:00)</div>
<div>Load balancer ARN</div> <div> arn:aws:elasticloadbalancing:ap-southeast-1:225989372284:loadbalancer/app/Demo-ELB/58c2e3f96aa0235c</div>	<div>DNS name info</div> <div> Demo-ELB-626042843.ap-southeast-1.elb.amazonaws.com (A Record)</div>		