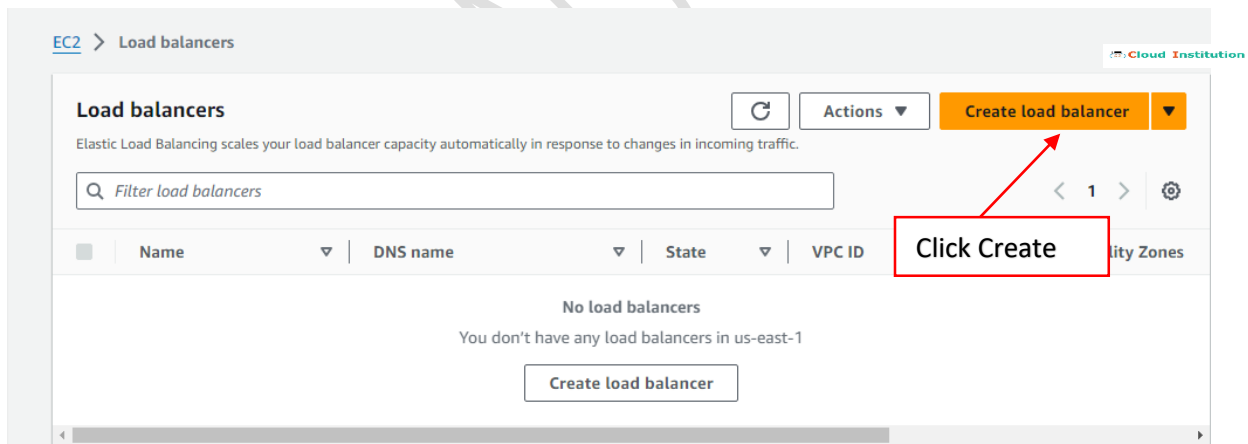
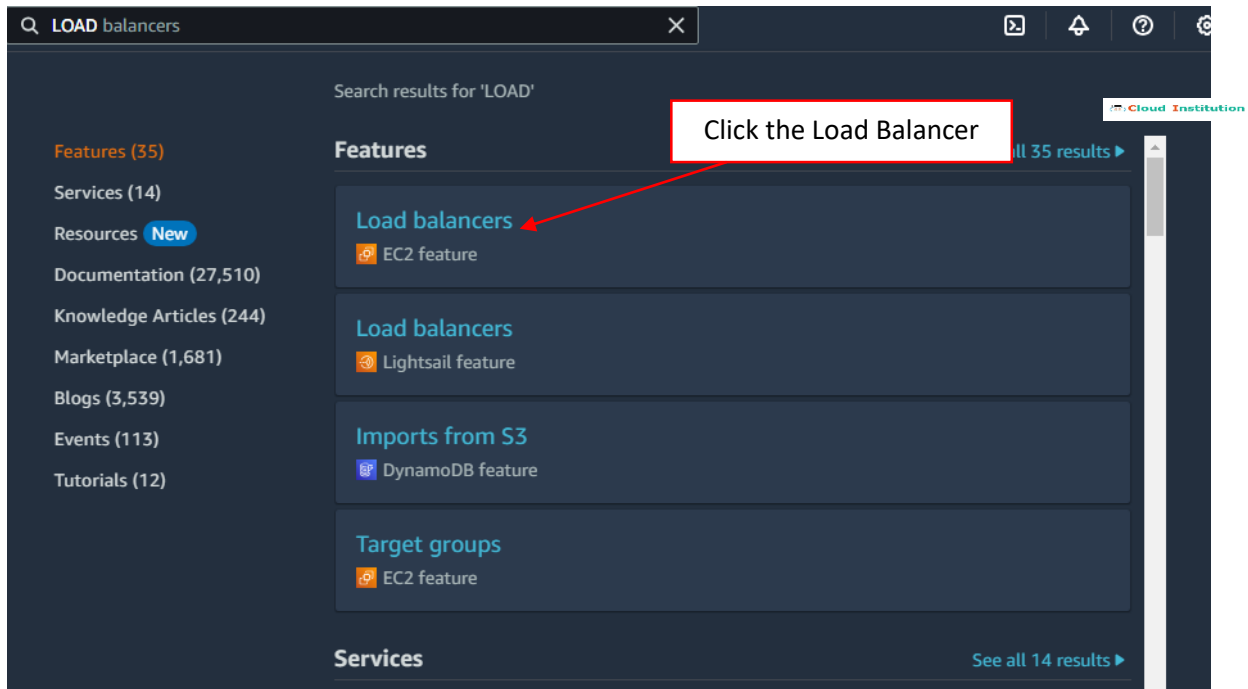
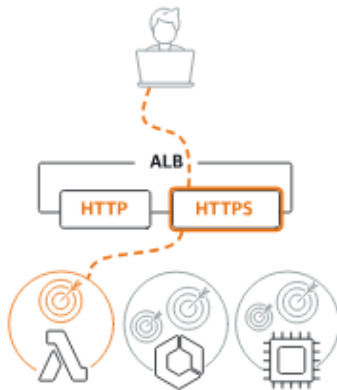


LOAD BALANCER



Application Load Balancer

[Info](#)

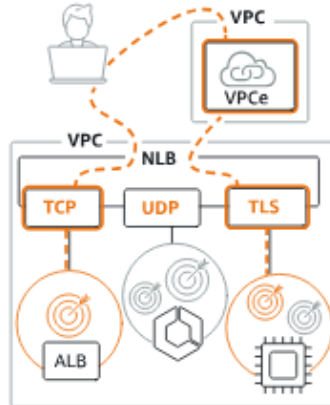


Choose an Application Load Balancer when you need a flexible feature set for your applications with HTTP and HTTPS traffic. Operating at the request level, Application Load Balancers provide advanced routing and visibility features targeted at application architectures, including microservices and containers.

Create

Network Load Balancer

[Info](#)



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

[Info](#)



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

Give a name to the Load Balancer

Load balancer name

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

NV-LOADBALANCER

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

Scheme | Info

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

Click on Internet-facing

☒ 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.

IP address type | Info

Select the type of IP addresses that your subnets use.

☒ IPv4

Includes only IPv4 addresses.

Click on IPv4

☐ Dualstack

Includes IPv4 and IPv6 addresses.

Network mapping | Info

The load balancer routes traffic to targets in the selected subnets, and in accordance with your IP address settings.

VPC | Info

Select the virtual private cloud (VPC) for your targets or you can [create a new VPC](#). Only VPCs with an internet gateway are enabled for selection. The selected VPC can't be changed after the load balancer is created. To confirm the VPC for your targets, view your [target groups](#).

N.V-VPC

vpc-0b77c4209d8356808
IPv4 VPC CIDR: 10.0.0.0/24

Q |

vpc-0ae76ae4d4a2db8aa
IPv4 VPC CIDR: 172.31.0.0/16

N.V-VPC

vpc-0b77c4209d8356808
IPv4 VPC CIDR: 10.0.0.0/24

Select the required VPC

Mappings | Info

Select at least two Availability Zones and one subnet per zone. The load balancer routes traffic to targets in these Availability Zones only. Availability Zones that are not supported by the load balancer or the VPC are not available for selection.

☒ us-east-1a (use1-az2)

Subnet

subnet-08dd8bc772962e04f

IPv4 address

Assigned by AWS

Select at least 2 subnets in different availability zones

☒ us-east-1b (use1-az4)

Subnet

subnet-090d723104c4e1241

SN-2 ▼

IPv4 address

Assigned by AWS

Security groups [Info](#)

A security group is a set of firewall rules that control the traffic to your load balancer. Select

Select the required Security Group

Security groups

Select up to 5 security groups

N.V-SG

sg-0a20b89b5f445a025 VPC: vpc-0b77c4209d8356808

default

sg-015cb95e4b1e03a44 VPC: vpc-0b77c4209d8356808

Cloud Institution

Listeners and routing [Info](#)

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

▼ Listener HTTP:80

Remove

Cloud Institution

Protocol

HTTP

Port

80

1-65535

Default action [Info](#)

Forward to

Select a target group

[Create target group](#)

Listener tags - optional

Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

Add listener tag

You can add up to 50 more tags.

Select the Create Target Group

Add listener

Basic configuration

Settings in this section can't be changed

Choose the required target

Cloud Institution

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.
- Offers flexibility with microservice based architectures, simplifying inter-application communication.
- Supports IPv6 targets, enabling end-to-end IPv6 communication, and IPv4-to-IPv6 NAT.

☐ Lambda function

- Facilitates routing to a single Lambda function.
- Accessible to Application Load Balancers only.

☐ Application Load Balancer

- Offers the flexibility for a Network Load Balancer to accept and route TCP requests within a specific VPC.
- Facilitates using static IP addresses and PrivateLink with an Application Load Balancer.

Target group name

NV-TG

Give a name to the target

Cloud Institution

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

IP address type

Only targets with the indicated IP address type can be registered to this target group.

☒ IPv4

Each instance has a default network interface (eth0) that is assigned the primary private IPv4 address. The instance's primary private IPv4 address is the one that will be applied to the target.

☐ IPv6

Each instance you register must have an assigned primary IPv6 address. This is configured on the instance's default network interface (eth0). [Learn more](#)

VPC

Select the VPC with the instances that you want to include in the target group. Only VPCs that support the IP address type selected above are available in this list.

N.V-VPC vpc-0b77c4209d8356808 IPv4 VPC CIDR: 10.0.0.0/24	▲
Q	
-	
vpc-0ae76ae4d4a2db8aa IPv4 VPC CIDR: 172.31.0.0/16	
N.V-VPC vpc-0b77c4209d8356808 IPv4 VPC CIDR: 10.0.0.0/24	✓

Select the required VPC

Health checks

The associated load balancer periodically sends requests, per the settings below, to the registered targets to test their status.

Health check protocol

HTTP ▼

Health check path

Use the default path of "/" to perform health checks on the root, or specify a custom path if preferred.

/

Up to 1024 characters allowed.

► Advanced health check settings

Attributes

ⓘ Certain default attributes will be applied to your target group. You can view and edit them after creating the target group.

► Tags - optional

Consider adding tags to your target group. Tags enable you to categorize your AWS resources so you can more easily manage them.

Click next

Cancel

Next

Register targets

This is an optional step to create a target group. However, to ensure that your load balancer routes traffic to this target group you must register your targets.

Available instances (2/2)

Filter instances

<input checked="" type="checkbox"/>	Instance ID	Name	State	Security groups
<input checked="" type="checkbox"/>	i-08a8b5858a536e4bb	N.V-JUMPSERVER	Running	N.V-SG
<input checked="" type="checkbox"/>	i-06729d3cdc1c88fca	N.V-JUMP	Running	N.V-SG

2 selected

Ports for the selected instances
Ports for routing traffic to the selected instances.

80

1-65535 (separate multiple ports with commas)

Include as pending below

1. Select all the instance

2. Click on Include as pending below

Review targets

Targets (2)

Filter targets

Show only pending

Remove all pending

Instance ID	Name	Port	State	Security groups	Zone	Private IPv4 address	Sub
i-08a8b5858a536e4bb	N.V-JUMPSERVER	80	Running				sub
i-06729d3cdc1c88fca	N.V-JUMP	80	Running	N.V-SG	us-east-1a	10.0.0.14	sub

2 pending

Cancel Previous Create target group

Now hit the create target group

Target Group is created

EC2 > Target groups > NV-TG

NV-TG

Actions ▼

Details
arn:aws:elasticloadbalancing:us-east-1:473869189128:targetgroup/NV-TG/5c027eb2140140be

Target type Instance	Protocol : Port HTTP: 80	Protocol version HTTP1	VPC vpc-0b77c4209d8356808
IP address type IPv4	Load balancer None associated		

2 Total targets	0 Healthy 0 Anomalous	0 Unhealthy	2 Unused	0 Initial	0 Draining
--------------------	-----------------------------	----------------	-------------	--------------	---------------

Now go back to the Load Balancer creation page

Listeners and routing Info

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

▼ Listener HTTP:80 Remove

Protocol HTTP ▼	Port 80 1-65535	Default action <small>Info</small> Forward to Select a target group ▼ Create target group	↻
--------------------	-----------------------	------------------------------------------------------------------------------------------------------------------------------	----------------

Listener tags - optional
Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.
Add listener tag
You can add up to 50 more tags.

Add listener

Now Refresh it

Listeners and routing [Info](#)

A listener is a process that checks for connection requests using the port and protocol you configure. The rules that you define for a listener determine how the load balancer routes requests to its registered targets.

▼ Listener HTTP:80

Protocol: HTTP Port: 80 (1-65535)

Default action: Forward to [Select a target group](#)

[Create target](#)

Listener tags - optional
Consider adding tags to your listener. Tags enable you to categorize your AWS resources.

NV-TG
Target type: Instance, IPv4 HTTP

Here we will find the created target group

Basic configuration [Edit](#)

N.V-LOADBALANCER

- Internet-facing
- IPv4

Security groups [Edit](#)

- N.V-SG [sg-0a20b89b5f445a025](#)
- default [sg-015cb95e4b1e03a44](#)

Network mapping [Edit](#)

VPC [vpc-0b77c4209d8356808](#)

N.V-VPC
Subnet not defined

Listeners and routing [Edit](#)

- HTTP:80 defaults to [NV-TG](#)

Service integrations [Edit](#)

AWS WAF: None
AWS Global Accelerator: None

Tags [Edit](#)

None

Attributes

ⓘ Certain default attributes will be applied to your load balancer. You can view and edit them after creating the load balancer.

Creation workflow and status

► Server-side tasks and status

After completing and submitting the above steps, all server-side tasks and their statuses become available for monitoring.

Hit on create load balancer

Cancel

Create load balancer

Now Load Balancer is created

☑ Successfully created load balancer: NV-LOADBALANCER

It might take a few minutes for your load balancer to fully set up and route traffic. Targets will also take a few minutes to complete the registration process and pass initial health checks.

[EC2](#) > [Load balancers](#) > NV-LOADBALANCER

Cloud Institution

NV-LOADBALANCER



Actions ▾

▼ Details

Load balancer type
Application

Status
⏸ Provisioning

VPC
[vpc-0b77c420](#)

Copy the DNS Name and
paste it in the browser

Scheme
Internet-facing

Hosted zone
Z35SXDOTRQ7X7K

Availability Zones
[subnet-08dd8bc772962e04f](#) us-east-1a (use1-az2)
[subnet-090d723104c4e1241](#) us-east-1b (use1-az4)

April 25, 2024, 12:51 (UTC+05:30)

Load balancer ARN

arn:aws:elasticloadbalancing:us-east-1:473869189128:loadbalancer/app/NV-LOADBALANCER/c2b25f68c052acc2

DNS name is

[NV-LOADBALANCER-455878922.us-east-1.elb.amazonaws.com](#) (A Record)