

## Lesson 03 Demo 09

### Creating a Network Load Balancer

**Objective:** To create a Network Load Balancer (NLB) in the Amazon Web Services (AWS) environment

**Tools required:** Amazon workspace

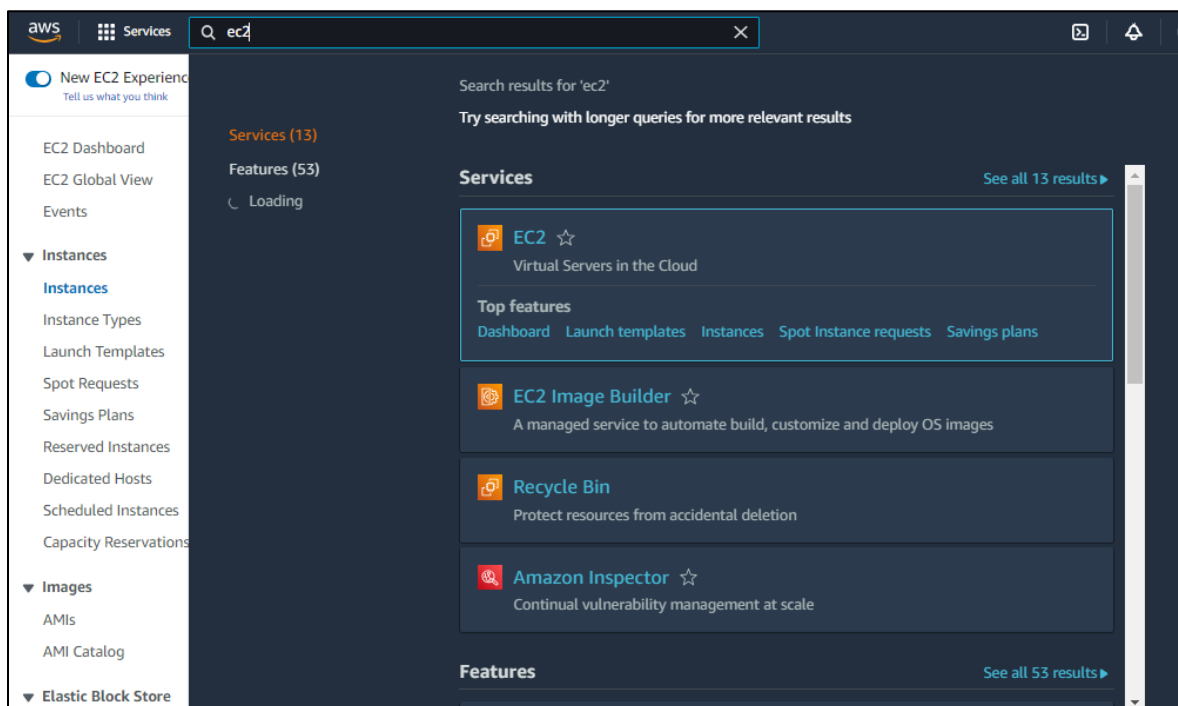
**Prerequisites:** Amazon account

Steps to be followed:

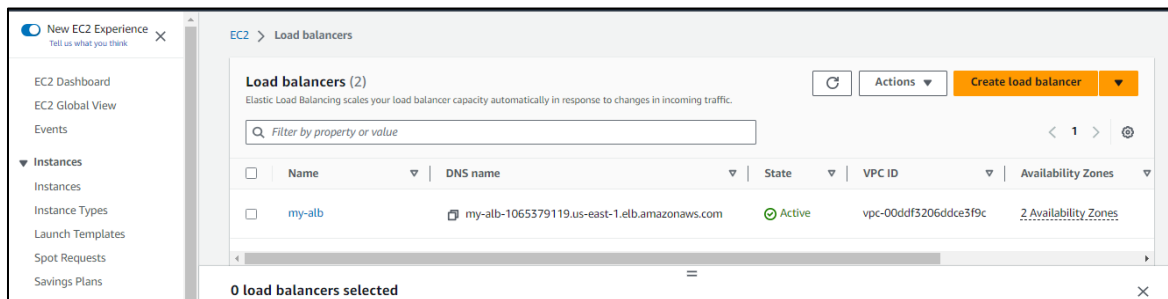
1. Set up the Network Load Balancer

#### Step 1: Set up the Network Load Balancer

##### 1.1 Navigate to the AWS Home screen and search for EC2



## 1.2 Click on Load Balancers > Create load balancer



## 1.3 Click **Create** on the Network 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

#### 1.4 Enter the Load balancer name as **Demo-4**

### 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.

**IP address type** [Info](#)  
Select the type of IP addresses that your subnets use.

#### 1.5 Select the Mappings, **us-east-1a** and **us-east-1b**

### Mappings

Select at least one Availability Zone and one subnet for each zone. We recommend selecting at least two Availability Zones. The load balancer will route traffic to the targets in the selected Availability Zones. Zones that are not supported by the load balancer or VPC can't be selected. Subnets can be added, but not removed, once a load balancer is created.

☒ **us-east-1a (use1-az6)**

**Subnet**

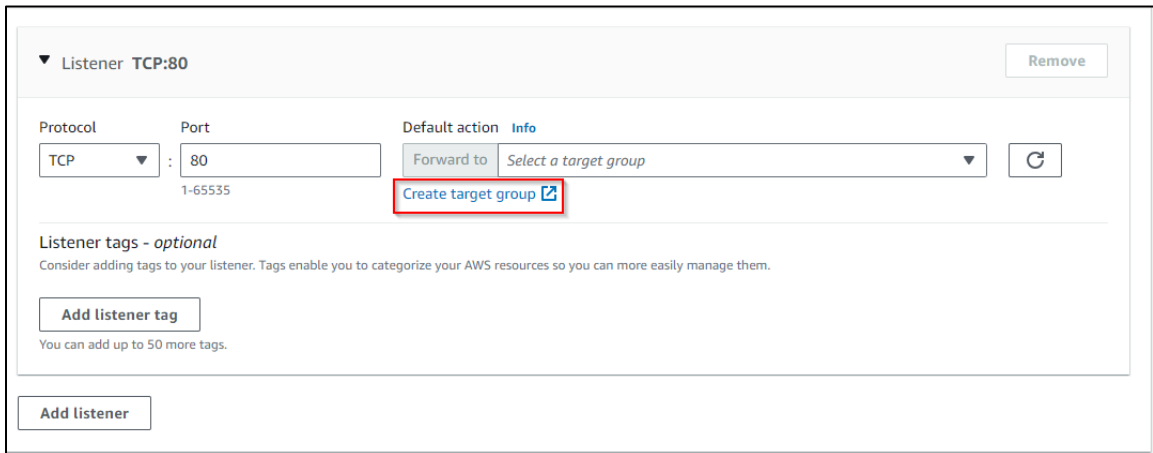
**IPv4 address**

☒ **us-east-1b (use1-az1)**

**Subnet**

**IPv4 address**

## 1.6 Click on **Create target group**



▼ Listener TCP:80 Remove

Protocol: TCP Port: 80 Default action: Forward to Info

1-65535 Create target group ↗

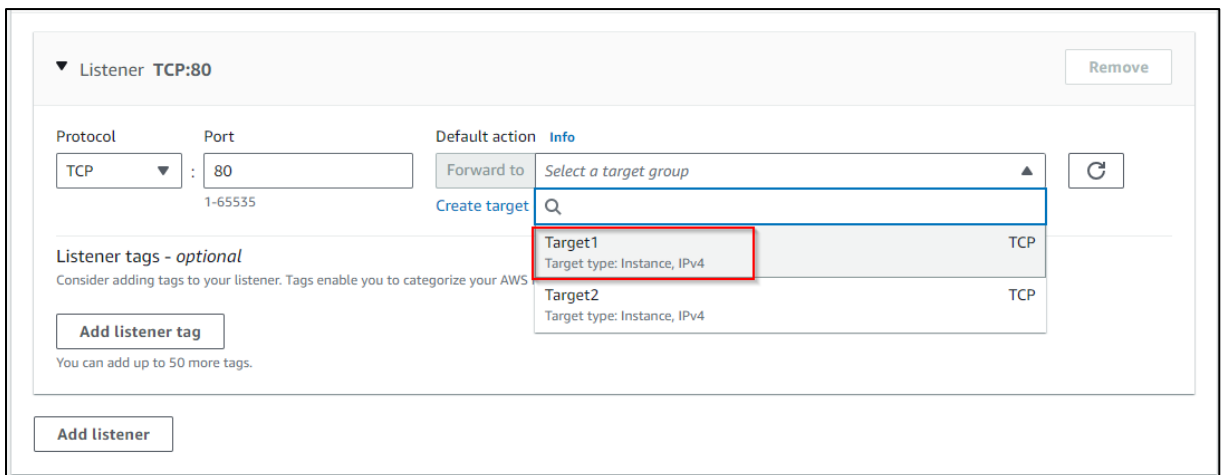
Listener tags - *optional*  
Consider adding tags to your listener. Tags enable you to categorize your AWS resources so you can more easily manage them.

Add listener tag  
You can add up to 50 more tags.

Add listener

On the **Listener and routing**, add more than one listener, and select the **target name**; refer to the previous demos to learn how to create target groups.

## 1.7 Select **Target1** for Default action



▼ Listener TCP:80 Remove

Protocol: TCP Port: 80 Default action: Forward to Info

1-65535 Create target Q

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

Add listener tag  
You can add up to 50 more tags.

Add listener

Target1	TCP
Target type: Instance, IPv4	
Target2	TCP
Target type: Instance, IPv4	

## 1.8 Add another **Target2** for Default action

▶ Listener TCP:80

Remove

▼ Listener TCP:81

Remove

Protocol
Port
Default action
Info

TCP
81
Forward to
Target2
TCP

1-65535
Target type: Instance, IPv4

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.

## 1.9 Click on **Create load balancer**

aws
Services
Search
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example, you can have Key = production-webserver, or Key = webserver, and Value = production.

### Summary

Review and confirm your configurations. [Estimate cost](#)

#### Basic configuration

[Edit](#)

Load balancer name not defined

- Internet-facing
- IPv4

#### Network mapping

[Edit](#)

VPC [vpc-00ddf3206ddce3f9c](#)

- us-east-1a [subnet-0e75d0b7d0ae62e68](#)
- us-east-1b [subnet-0f2f17a7489229506](#)

#### Listeners and routing

[Edit](#)

- TCP:80 defaults to [Target1](#)
- TCP:81 defaults to [Target2](#)

#### Tags

[Edit](#)

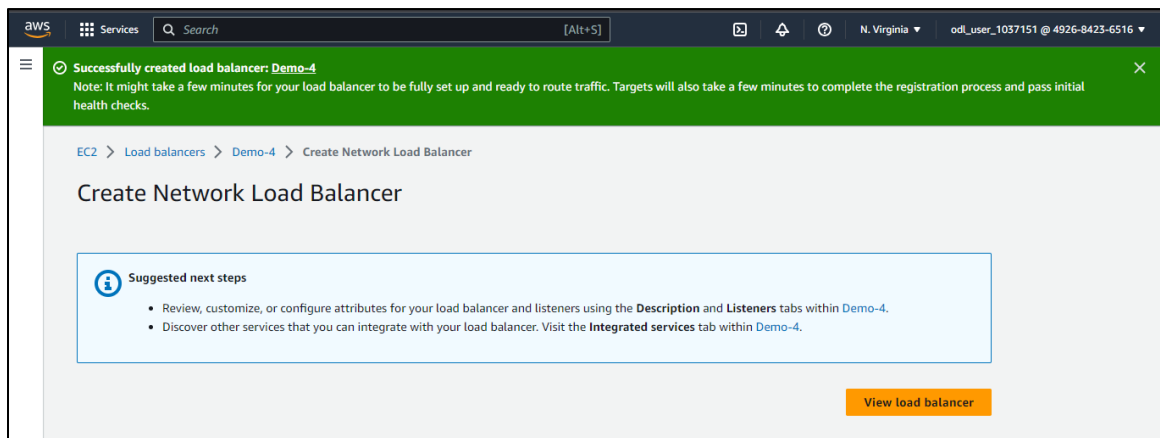
None

### Attributes

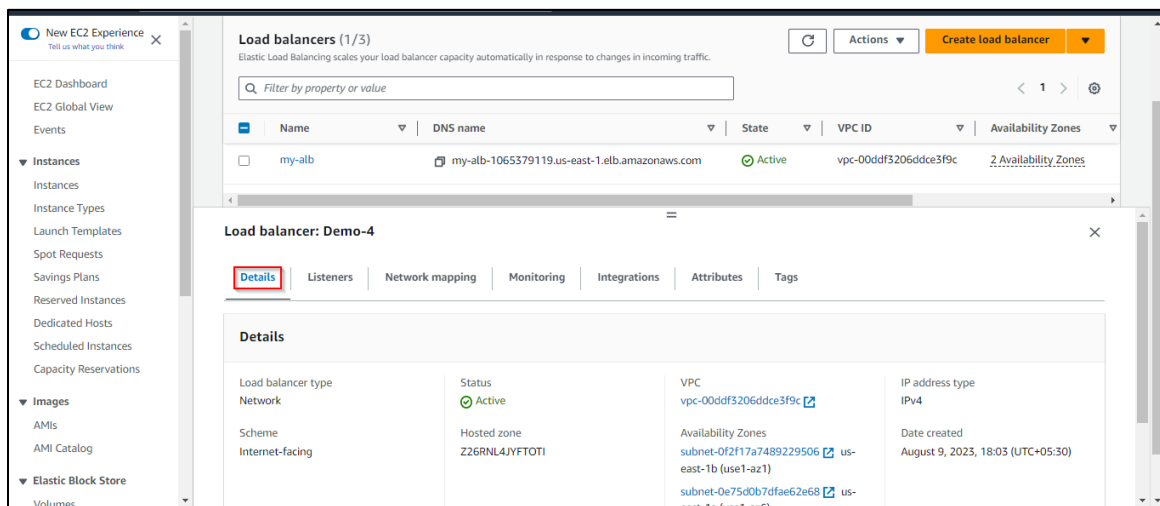
*ⓘ* Certain default attributes will be applied to your load balancer. You can view and edit them after creating the load balancer.

Cancel

Create load balancer



The load balancer Demo-4 is successfully created.



After creating the load balancer, click on Details to access the VPC and DNS name.

By following these steps, you will be able to successfully create a Network Load Balancer to distribute traffic across the specified availability zones using multiple listeners and target groups.