

## Elastic load balancer/applications load balancer:

- Elastic Load Balancing automatically distributes your incoming traffic across multiple targets, such as EC2 instances, containers, and IP addresses, in one or more Availability Zones.
- Elastic load balancing offers the ability to load balance across AWS and on-premises, resources using a single load balancer.

[] create **one VPC** and **3 subnets with 3 different regions**.

(After creating right click select edit subnet. select enable the auto-assign public IP and go to route table select route table and select subnet associations and add the created subnet)

[] launch 3 instances using three subnets

[] connect through putty

[] install nginx in all three servers

    >[] sudo su -

    >[] apt-get update

    >[] apt install nginx (check in chrome mentioning public ip)

    >[] cd /var/www/html

    >[] ls

    >[] vi index.html (paste some html code (w3school))

[] check it in chrome.

[] do same in 3 servers.

[] go to ec2 dashboard.

[] in load balancing select target groups.

[] create target group

[] in choose a target group

    >[] instances

[] target group name (whatever)

[] in protocol select TCP and in port 80

[] in VPC. select which we select in launching instance

[] health check protocol

[] TCP

[] in advanced health check setting

[] health check protocol

[] Traffic port

[] health threshold

[] 3

[] unhealth threshold

[]3

Target group name

123

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

Protocol

TCP

Port

:

80

T-65555

VPC

Select the VPC with the instances that you want to include in the target group.

demo\_vpc  
vpc-d357e334a108b223ac8  
IPv4: 10.0.0.0/16

Health checks

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

Health check protocol

TCP

Advanced health check settings

Restore defaults

Health check port

The port the load balancer uses when performing health checks on targets. By default, the health check port is the same as the target group's traffic port. However, you can specify a different port as an override.

☒ Traffic port
 ☐ Override

Healthy threshold

The number of consecutive health checks successes required before considering an unhealthy target healthy.

3

2-10

Unhealthy threshold

The number of consecutive health check failures required before considering a target unhealthy.

1

2-10

Timeout

The amount of time, in seconds, during which no response means a failed health check.

10

seconds

2-120

Interval

The approximate amount of time between health checks of an individual target

30

seconds

5-300

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.

Cancel

Next

[] in Port for the selected instances

[] 80

[] select include as pending below

[] in review target

[] target

[] select our servers and create target group

0 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

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**Review targets**

**Targets (0)**

☒ Show only pending

< 1 > ⚙

Remove	Health status	Instance ID	Name	Port	State	Security groups	Zone	Subnet ID
No instances added yet								
Specify instances above, or leave the group empty if you prefer to add targets later.								

0 pending

Cancel Previous **Create target group**

## Load Balancers:

[] create load balancer

[] select network load balancer

[] create

[] load balancer name

[] scheme

    [] internet-facing

[] IP address type

    [] IPV4

[] VPC (select which we mention in launching instances)

[] Mapping (when we select VPC. It automatically lists attached subnets and select subnets)

[] security groups. Select which we created

[] in Listeners and routing, select created target groups

[] create load balancer

[] after creating, copy the DSN link of load balancer, wait till its shows active and paste it in chrome, we will get output, (server output means what we mention in html file)