

# Load Balancing

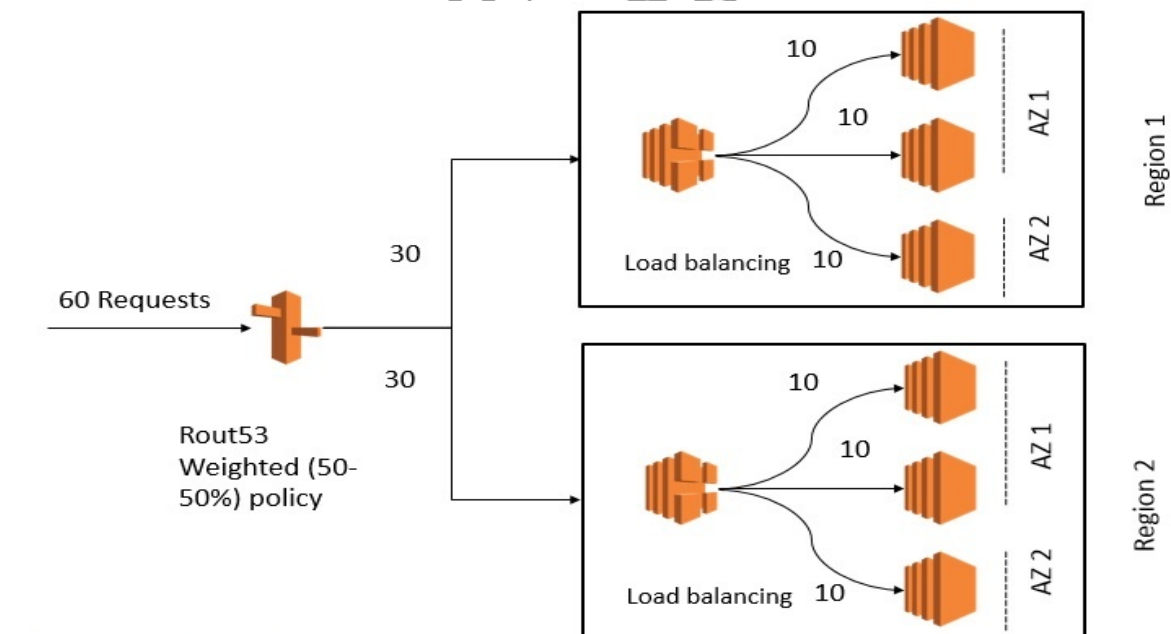
Load balancers are servers that forward internet traffic to multiple server (EC2 Instances) downstream.

## Use

- Spread Load across multiple downstream instance
- Expose a single point of access (DNS) to your application
- Seamlessly handle failures of downstream instances
- Do regular health checks to your instances
- Provide SSL termination (HTTPS) for your websites
- High availability across zones

## Load Balancer allow only One Region

And Multiple region allow Load Balancer below Image



## Why use Elastic Load Balancer

1. ELB is a managed load balancer  
AWS guarantees that it will be working  
AWS take care of upgrades, maintenance, high Availability  
AWS provide only a few configuration knobs
2. It costs less to setup your own load balancer  
BUT it will a lot more effort on your end (Maintenance, integrations)

## 3 Type Load Balancer is below

### 3 Type Load Balancer

1. Application Load Balancer (HTTP /HTTPS only - 7 Layer
2. Network Load Balancer (Ultra-high Performance, Allow for TCP)-Layer 4
3. Classic Load Balancer(Slowly and Older also retiring) Layer 4 & 7

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