

MCA SEM-III
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CLOUD TECHNOLOGY –
Load Balancing

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Load Balancing

Load Balancing

Distribute Incoming Traffic across multiple targets.

The EC2 instances can be considered as a target, the IP Addresses can be considered as a traffic.

Ex.: Suppose there are two EC2 instances at my side and some incoming request is coming to the EC2 instances, so the Load Balancing distributes the incoming traffic across the available multiple EC2 instances.

Load Balancing

Load Balancing Availability Zones

Load Balancing operates in
Single Availability Zone
OR
Multiple Availability Zones.

Load Balancing

Types of Load Balancers

1. **Application Load Balancers:** If the Traffic is of type HTTP or type HTTPS then Application Load Balancer can be applied for Load Balancing.
2. **Network Load Balancers:** If the Traffic is of type TCP and TLS then Network Load Balancer can be applied for Load Balancing.
3. **Classic Load Balancers:** It's a basic or very primitive Load Balancer. The general traffic is distributed across the EC2 instances. The Classic Load Balancers are basically used for those applications which were built within the EC2 classic network.

Load Balancing

Benefits of Load Balancing

1. It provides High Availability. 99.99% availability is guaranteed for Load Balancer by AWS.
2. It provides high fault tolerance.
3. There is a rapid change in the traffic pattern. To handle this it is Elastic in nature.
4. Security: Provides security by working with Virtual Private Cloud (VPC).

Load Balancing

References

1. <https://aws.amazon.com/what-is/load-balancing/#:~:text=Load%20balancing%20is%20the%20method,a%20fast%20and%20reliable%20manner.>

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