What is Load Balancer ?

AWS Define  
  
- A load balancer serves as the single point of contact for clients. Clients send requests to the load balancer, and the load balancer sends them to targets, such as EC2 instances. To configure your load balancer, you create [target groups](https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-target-groups.html), and then register targets with your target groups. You also create [listeners](https://docs.aws.amazon.com/elasticloadbalancing/latest/application/load-balancer-listeners.html) to check for connection requests from clients, and listener rules to route requests from clients to the targets in one or more target groups.  
  
  
Types of Load Balancer

1. Application Load Balancer
2. Network Load Balancer
3. Classic Load Balancer
4. Application Load Balancers

It is best suited for load balancing of HTTP and HTTPS traffic. They operate at Layer 7. They are intelligent and you can create advanced request routing, sending specified requests to specific web servers.

1. Network Load Balancers

It is best suited for load balancing of TCP traffic where extreme performance is required. Operating at the connection Level (Layer 4), Network Load Balancer are capable of Handling millions of requests per second, while maintaining ultra-low latencies.

Used for Extreme Performance……..

1. Classic Load Balancers

It is the Legacy Elastic Load Balancers. You can load Balance HTTP / HTTPS applications and use Layer 7 - specific features, such as X-Forwared and Sticky Sessions. You can also use strict Layer 4 Load Balancing for applications that rely purely on the TCP protocol.

If your application stops responding, the ELB (Classic Load Balancer) responds with a 504 error.  
 - This means that the Application is having issues. This could be either at the Web Server layer or at the Database Layer.

- Identify where the application is failing, and scale it up or out where possible..

Remember Topics

**124.12.3.231**

**X-Forwarded-For**

**10.0.0.23**

**10.0.0.23**

**EC2 Instance**

USER  
124.12.3.231

- 504 Error means the gateway has timed out. This means that the application not responding within the idle timeout period.

- Trouble shoot the application. Is it the Web Server or Database Server ?

- If you need the IPv4 address of your end user, look for the X-Forwarded-For header.