

For every additional element, why you are adding it?

Load balancer and 2 additional servers

when traffic starts to grow and reaches the server capacity, the server wouldn't be able to handle the requests. In order to solve this issue we have added 2 servers and load balancer. The load balancer acts between the servers and the client and its main job is to distribute HTTP requests that came from the client using efficient algorithms. The algorithm we used in this infrastructure is called **Round Robin**.

- **Round robin:** requests are distributed across a group of servers sequentially.

Is your load-balancer enabling an Active-Active or Active-Passive setup, explain the difference between both?

In active-passive configuration when a server fails the load balancer sends the request to the next available server.

In active-active configuration the server spreads the HTTP requests to all available servers.

Our load balancer is using active-active configuration.

How a database Primary-Replica (Master-Slave) cluster works?

The master database is actually the keeper of the data resources and also the place where all the writing requests are performed. The reading operations are spread across multiple slave databases relative to the master database. This architecture is used to enhance the site's reliability to a greater extent.

Issues with the distributed Web infrastructure?

SPOF (Single Point Of Failure) : in this infrastructure if the load balancer stopped working the client won't be able to connect with the server.

Security issues (no firewall, no HTTPS): firewalls and HTTPS is not available which makes the servers vulnerable.

No monitoring: