



The infrastructure changes very few elements for this one. Now the protocol used to make the request to the server is provided by an SSL service that works with certificates. An SSL certificate is a digital certificate that authenticates a website's identity and enables an encrypted connection. SSL stands for Secure Sockets Layer, a security protocol that creates an encrypted link between a web server and a web browser. When the certifications are checked, the information goes encrypted to the server with the HTTPS protocol, increasing security on client-server communication.

Security is also increased with the addition of firewalls, which control traffic and they have some other security options depending on the type of firewall. Some, for example, block certain ports.

Also, monitoring points have been added. This allows admins of the server to take a look into what is happening. Effective server monitoring helps system administrators to track server performance data, identify vulnerabilities, and resolve any server issues.

### ***Explain what to do if you want to monitor your web server QPS***

To monitor this infrastructure's queries per second we should look at the monitor from the Load Balancer, as it is the structure that distributes the requests to all the other servers.

### ***Why terminating SSL at the load balancer level is an issue?***

SSL should terminate at the load balancer because it offers a centralized place to correct SSL attacks such as CRIME or BEAST.

### ***Why having only one MySQL server capable of accepting writes is an issue?***

The server performance is gonna be affected, for this reason, we must spread the load among one or multiple slaves. That's why the load balancer is needed.

***Why having servers with all the same components (database, web server and application server) might be a problem?***

The best way to avoid traffic problems when one of the servers (web, app, and DB) are in maintenance, is separate one per machine, to increase the performance. The same occurs if one of the servers has to grow. If your infrastructure has one machine per server, you can grow vertically in the server which needs to grow.