

ABSTRACT

The development of web server technology is increasingly rapid, so choosing the right web server is Bad important to ensure optimal website performance and responsiveness. This research aims to conduct a comparative performance analysis between three popular web servers: Lighttpd, Nginx, and OpenLiteSpeed. The selection of these three web servers was based on their popularity and reputation for reliability in the industry. The method used in this research is a stress test using Apache Bench and Apache JMeter software. The parameters measured include response time, throughput, RAM usage, CPU usage, data Sent (Sent), data Received (Received), errors (Error), and logs from each web server. Test results show that OpenLiteSpeed is superior in terms of response time and throughput compared to Nginx and Lighttpd, thanks to its advanced caching features. Meanwhile, Nginx and Lighttpd are more efficient in RAM and CPU usage, with a lightweight design that does not require a webadmin GUI. Even though OpenLiteSpeed is more wasteful in resource usage, it is still stable and does not consume excessive resources. Lighttpd shows Good performance, but is still inferior in several aspects to OpenLiteSpeed and Nginx.

Keywords: Apache, Nginx, Lighttpd, Stress Test.