

## ABSTRACT

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### **STUDI PERBANDINGAN PENGARUH NILAI *KEEPALIVE TIMEOUT* & *MAXCLIENT* PADA *SERVER* APACHE DAN NGINX**

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Apache in the last few years has been the leader of engine market, but recently NGINX showed up and is uprising to be a new competitor of Apache. This causes the chance of Apache user to compare its performance with NGINX, surfacing the choice of keep on using Apache or moving system to NGINX. This problem is what backgrounded this research. To compare both systems, Keep Alive Timeout and MaxClient variables were chosen as parameters. Keep Alive Timeout is a variable that sets the duration of a KeepAlive connection, while MaxClient is a variable that sets how many clients can be served concurrently at the a time.

The test is done by using personal computer with dual core 3GHz processor, 4GB of RAM, gigabit connection and OS Ubuntu 11.4. An initial load testing was done to determine the initial number of MaxClient of default configuration. Then, another test was done to get the optimal value of Keep Alive Timeout and MaxClient in the hardware configuration being used. The stress testing was done with the same procedure as load testing. The result of the test will be compared with the statistical test “Chi Square Testing” to prove the occurence of significant change on test result configuration.

Result of improved response time was seen, caused by the increasing of KeepAlive Timeout and MaxClient value up to certain limit, the values were 12 for KeepAlive Timeout, and 300 for MaxClient. In the NGINX test, the increase of maxclient is not only the worker\_ocnnection but also worker\_process because the MaxClient value in NGINX is a multiplication product of both the numbers. In the statistical test, a relational function is also seen between KeepAlive Timeout and Maxclient with response time also throughput. The Chi Square testing also showed the occurence of significant change between default configuration and the configuration resulted from this research.

References : 20 (1990-2011)