ABSTRACT

Load balancing is a technique in a cloud computing environment that has the main purpose of balancing server load in handling requests. Load balancing is also one technique to improve overall server performance by balancing requests processed by the server so that the server is able to complete requests effectively and efficiently. There are many libraries and tools that can be used to analyze cloud systems, one of which is cloud. In the final project simulated and analyzed about the Least Connection method in handling load balancing on cloud systems that are simulated in clouds. The simulation produces quite good results, namely CPU load equalization of about 28% of all VMs used, then the level of network load equalization is also quite good where the average process time that is able to be completed by each server can be accepted by the client in a relatively short time (around 40ms). The final processing time as a whole shows that the server is able to give almost the same settlement time for processes that have the same weight (there is only a maximum difference of 40 milli second).

Keywords: Least Connection, Cloud Computing, Cloudsim, Virtual Machine (VM), server