

ABSTRACT

Website is an internet application to provide interesting contents. In fact, the number of people who visit the website increase caused by that interesting contents. While the website visitors increase, the traffic on website has crowded and the workload in server has overloaded. Therefore, there is a decrease in the quality to serve client requests of website contents.

Load balancing is a technique to devide the traffic load and read the available resource in server. Deviding the traffic load use server hardwere such as CPU, memory, and disk. Schedulled algorithm use dynamic ratio and then the dynamic ratio will be compared to ratio algorithm.

In this final project, load balancing has been designed using the dynamic ratio algorithm and the ratio of three types of services, namely web server, FTP server, and VoIP server. The highest throughput average value is found in the dynamic ratio algorithm, i.e. 119.68 KB/s of web server and 120.53 KB/s of FTP server. The fastest response time average value is ratio algorithm for 8.66 seconds of web server and 32.2 seconds of FTP server. The average results for the least number of request losses is ratio algorithm, i.e. web server for 2.1% request failures, FTP server for 0.07% file transfer failure, and VoIP server for 0.18% call failure.

keyword : load balancing, dynamic ratio, ratio, server