

## **ABSTRACT**

Load balancing refers to efficiently distributing incoming network traffic across a group of backend servers. Load balancing is made to the chance of overloading server that is caused by incorrect allocation of resources or focusing only on a task so as that other requests is not served until the current task is finished. Load balancer distributes requests to other servers in the system so that the task is done in paralel. This distribution is what makes it simple for the system to create virtual environment for the user that would make it able to process request without affecting the overall system.

Cloud computing basically is internet based dynamic computing, whereby user sent data to be stored or processed by the system, and this processing is what needed to be balanced so that each user have relatively fast access time with minimum delay. The use of servers would surely require electricity to power the server and its supporting hardwares. Environmentally conscious cloud computing, where there is a focus in minimizing the usage of electricity or green computing is the main purpose of this Final Project.

**Keywords: Load balancing, Cloud computing, Power consumption, Green computing**