CHAPTER 1
INTRODUCTION

1.1 Background

The server is a service provider's device to satisfy client requests. And Web Server is one part of server service. Web Server contains web pages data. When the Web Server receives a request from the client, the web server sends data at the request of the client. Web server also has a load limit that can be handled. And the web server will be overloaded when the request from the client exceeds the load limit that can be handled. When the web server is overloaded it will be difficult to access by the client. Apache2 is one of freeware to hand over web server service, advantages of Apache2 is easy to instal on Ubuntu dekstop that is an open source operating system. Apache2 also can linked to MySql as the database.

Load Balancing is one method to reduce or divide the load on the web server. Load Balancing Method there are 2 kinds of software and hardware-based. Load Balancing with software method requires a cheaper cost than hardware because there is no need to replace hardware devices that have been installed. The NginX program can be configured as load balancing and it can use Least Connection as the algorthm.

With Load balancing then certainly the web server has more stable connection and also ease the burden of web server during connection a lot. Load Balancing works divides redirecting requests from clients to one of two or more web servers. Load balancing also make time to connect to web server more less than without the load balancing. We can test the load balancing performance using Jmeter aplication and it is free software and it’s a freeware.

1.2 Scope

There are some restrictions that will be applied so that in this project work does not widen from the main problem. Limitations of the problem are as follows:

1. Web Server to be built there are 2 web server using Apache2 web server installed in Ubuntu desktop
2. Using NginX as the server for load balancing using least connection algorithm installed on Ubuntu desktop
3. Web server only use 1 database with MySQL installed in Ubuntu desktop
4. Load Balance server can direct client request into one of two web server

1.3 Objective

The purpose of this review is:

- Load balancing can provide the request traffic from client to two web server
- Load balancing must reduce the load that recieved by web server
- Request from the client can be processed more quickly and the connection can run smoothly without any error.