ABSTRACT

Along with the development of the Internet and a growing number of users connected to the Internet make data communication is very important. One of the most accessed by the users are web pages. Today many companies rely their business on website services. When a single server is getting requests from too many users, the server is going to overload and crash so the request can not be served. Surely this would make a loss for the company.

Cluster architecture that implemented as a server with high performance is one of the effective and efficient solutions to resolve the issue. The architecture of this cluster can be built using the concept of network load balancing and MySQL Cluster that enables processing data in a distributed computers, one of the method is using linux virtual server technology and My SQL Cluster as the database storage.

Based on observations obtained at the LVS system can handle 3906.53 requests per second while on a single server only 3393.30 per second. It causes the value on LVS throughput is greater than on a single server. The response time when it raised the request at the LVS 4000 is 14.43 milliseconds on a single server while 65.74 milliseconds. Request loss on the LVS 4000 is raised when the request is 0% while the number of requests with a single server loss is 0.28%.

High availability also the advantages possessed by the cluster system. If any server in the cluster is down then all requests will be routed to a server that still active. So it not interupting the requests that come into the system.

Keywords: MySQL cluster, network load balancing, high-availability, load balancer, linux virtual server