

## ABSTRACT

Basically, the computer cluster is a group of independent computer entity, which each other can work together to produce an output of a particular problem (input). In other references, computer cluster is a scientific discipline that seeks a set of computers can be seen as a single entity. In the current implementation, computer clusters is one thing that is very important for the survival of the information age. Variety of its application from the medical world, astronomy, social media, to entertainment (entertainment) makes this discipline continues to grow exponentially.

One application of computer cluster of the most popular today is in the field of database, where the world's ever growing data volumes far excess of what had been predicted earlier. This challenge can be answered with one database cluster engineering solutions, namely MySQL Cluster.

This design which MySQL cluster running on an EoIP network based could run it's overall functionality normally. The results of measurements of sysbench benchmark value could represent the performance of this design, which is the average number of transactions per second is 202.41, the average number of read and write requests per second is 3836.41, the average minimum time required to execute a request is 35.78 milliseconds, and the average maximum time required to execute a request is 2794.32 milliseconds.

**Keywords : MySQL Cluster, Shared-Nothing Cluster, EoIP**