ABSTRACT

Clustering computer is a set of computers that are connected to all work together as a single entity or system resources. Which the picture into one machine and each computer is called a node. Laboratory of computer networks that do not have a lot of devices are adequate and therefore cannot simulate a network. To support the network simulation needed a simulator that can simulate the network all at once can implement cluster system. Graphical Network Simulator 3 (GNS3) is one product of open source network simulator that will be used in the project these days. This Simulator will be used as a means of testing laboratories to implement the cluster system is simulated in GNS3 network and can simulate the network at the core of a building or buildings. The research method applied is System Development Life Cycle (SDLC) phases of the Waterfall model uses a study library, designing, implementing and testing systems, testing and analysis conclusion and withdrawal report preparation. Application of cluster system and simulation of the future it is expected that a building or the building has a main chain simulation for faster data exchange, safe and secure.

Keywords: Clustering Computing, Network Simulation.