ABSTRACT

Loss of data resulting from a failure on the server resulting in inhibition of the current system and hurt the company. This problem usually occurs because of a heavy workload due to server accessed by many clients simultaneously or absence of recovery for servers make the server be down. To minimize the level of losses for the company, required a system that could guarantee the availability of data and information. The authors will implement failover feature on the smart parking system. System failover can guarantee the availability of services to the server.

At this feature research on the smart parking system failover, failover is used as a service that guarantees the availability of access to the server. If hardware failure occurs on the primary database server then the access of database service can be automatically transferred to the slave database servers. In the smart parking system equipped embedded network that serves for realtime data communication between the raspberry with the main server and slave server. Input from raspberry to the server is true or false form so it can be useful to visualize the smart parking system to facilitate visitors to see the availability of the parking slot.

From the research, average time of server to switch because of network disconnection or failure using wired is 4 sec if using wireless it took 6.033 sec. True or false data delivered to raspberry in realtime test using 2 scenario. First scenario is update empty slots to be filled and second scenario is update from filled slot to empty slot. The average time obtained from first test scheme is 733.336667 ms and average time obtained from second test is 740.456667 ms. The average time that happen is influenced by the connection because in this experiment using tunneling ngrok for delivery so the connection depends on the ngrok.

Keywords : *Network Embedded, Failover, Charging System*