

ABSTRACT

Third generation wireless telecommunication technologies (3G) is an evolution of GSM technology. This technology is able to serve the data transmission speed of up to 2 Mbps. This 3G network technology architecture consists of two sub-networks that support the radio access network (UTRAN) and the local network (Core Network). Radio access network provides connectivity between mobile terminals and the Core Network. On the radio access network consists of Radio Network Controller (RNC) and one or more Node B which are interconnected with an interface. Radio Network Controller or can be abbreviated with the RNC is a device that functions similar to BSC in GSM.

RNC, which is part of the radio access network has a function as Radio Resource Management. Radio Resource Management is the process to build, maintain, modify and release the lines of communication on the radio interface. Process on Radio Resource Management (RRM) can be divided into several functions namely Admission Control, Load Control, Packet Scheduler, Resource Manager, Handover Control and Power Control. Research in this final observation on the RNC in controlling handover. Observations were performed using analysis parameters to see the RNC functions as Radio Resource Management (RRM).

Final results of observations on the condition of existing RNC Dago 4 in controlling handover. Observation of control through the RNC handover as a function of Radio Resource Management parameters include the value of success rate, CE Max and Max Iub Utilization Utilization. Observations were carried out to see the parameters of the success rate, CE Max and Max Iub Utilization Utilization under the threshold. The results obtained will be improvements to the value of success rate that is below 95%. Improvements to the value generated success rate of 95% to 99.89%. Besides the improvement of the value of CE Max Utilization 100% value by adding to the capacity of CE. CE Max Utilization decline in value obtained from 100% to 79.58%. Improvements were also conducted on the value of Max Iub Utilization whose value is above 85%. Repairs resulting form Max impairment Iub Utilization of 89.61% to 89.36%.

Keywords: RNC, RRM, Handover, CE (Channel Element), Iub, Success rate.