ABSTRACT

Samarinda is one area that has been using LTE technology. LTE technology is a 4G technology, the continued evolution of the standard mobile communications system defined by 3GPP (Third Generation Patnership Project) Release 8 capable of performing IP-based services. In the city of samarinda use the LTE frequency allocation at the frequency of 1800 MHz. But because Samarinda is a new area to implement LTE network, so to improve network performance so that have good quality and high work result, we can do measurement by measuring quality of LTE network in North Samarinda City.

In this Final Project, we will measure the quality of LTE network using the Drive Test method. This measurement is done using Nemo Handy software. The area to be done for the case study on this Final Project in North Samarinda City, a survey conducted previously with customers using one of the largest operators in Indonesia. From the results of measurement and survey is done the analysis, if found the problem then done optimization on the area.

The result of this final project is the researcher able to give recommendation of result of data obtained during field survey. Then the result of the simulation can be used for optimization step. This optimization aims to get the value of KPI that has been specified. By reconfiguring the BTS, then the optimization simulation can be seen RSRP parameters increased 44.4% and 25.1% SINR parameters.

Keywords: LTE Optimization, Drive Test, Nemo Handy, Key Performance Indicator.