ABSTRACT

The increase in the number of LTE network operators Tri in Klaten regency is getting higher. Moreover, many Klaten residents who have replaced their smartphones for LTE support. However, Tri operators in Klaten, especially in the Delanggu region, received a lot of customer complaints about the poor quality of the Long Term Evolution (LTE) signal signals that many disappointed consumers could lead to switching customers to other mobile operators.

In this final project is done network analysis based on drive measurement data results using software GENEX Probe 3.16. GENEX Probe 3.16 software helps to view and get drive test data. After getting the test drive data and found the problem that in the next measurement area using the software GENEX Assistant 3.16 conducted analysis of the causes of poor performance throughput on LTE to then determine the required optimization step.

Based on the results of calculations in this study obtained the average RSRP spread value increased from -92.29 dBm to -83.02 dBm with KPI \geq -90 dBm. The average spread value of SINR increased from 8.86 dB to 11.11 dB with KPI \geq -12 dB. The disTribution of RSRQ averages decreased from -7.35 dB to -8.67 dB with KPI \geq -12 dB. The spread of the average throughput value increased from 2674.47 Kbps to 6713.13 Kpbs with KPI \geq 8 Mbps. The review parameters have improved greatly and are closer to KPIs in the Tri operator LTE network in Delanggu Klaten.

Keyword: LTE, RSRP, RSRQ, SINR, Throughput.