

## ABSTRACT

Data failure occurs when the user wants to send data, but there is a failure to arrive at the transmitter. This happens because there are obstacles that block the transmitter and receiver. Therefore data failure must be avoided, because it will interfere with the process of sending data to the user.

In this final project, an analysis of the causes of data failure on the LTE network using the drive test method in the sample area with the focus zone area analysis, namely the Cisitua area, Bandung City. After getting the drive test result data in the form of log files are analyzed using Actix software. Parameters reviewed are RSRP, SINR, mean throughput and user re-detection. Where these parameters will be compared with the value of the Key Performance Indicator (KPI).

Based on the results of the analysis and simulation obtained an increase in each parameter, so as to achieve the target value of KPI. From the results of the low RSRP problem after the improvement results increased from 71.835% > -90 dBm to 90.207% > -90dBm. From the results of the low SINR problem after the improvement results increased from 84.287% > 5 dB to 91.48% > 5 dB. From the results of the problem the low mean throughput after the improvement results experienced an increase from 17.6 Mbps to 28.3 Mbps. As well as the reject user problem after the improvement results increased from 7% to 0.1%.

**Keyword :** *drive test, RSRP, SINR, mean throughput, Key Performance Indicator*