## **ABSTRACT**

2G technologies (voice) in a GSM (Global System for Mobile Communication) at any time will change the quality., Good quality of the technology used, and quality of customer satisfaction. The quality of the technology will be obtained by several parameters, among the parameters that will be discussed in this thesis is the radio parameters and the parameters of the event.

To be able to know how big influence the quality of the network using radio parameters and parameters of these events, the authors measured the so-called drive test. Drive test method is conducted to optimize a service on a GSM network. Network optimization is done based on the analysis of drive test measurement results contained in the cluster of BTS (Base tranceiver station) in an area Cicalengka. The value of the optimization of measurement will refer to the quality standards that have been done on the drive test with the reference standard KPIs (Key PerformanceIndicators).

The optimization results of calculations based on the analysis parameters have been determined, in this case is the radio parameters and parameters of the event. The value of the optimization of measurement will be based on the feasibility of a quality standard of service, of course, after meeting some of these parameters. The results of this optimization is a comparison of the results of planning with the results of drive test measurement values are then provided recommendations for a better yield.

Keyword: Drive test, GSM, BTS, cluster, KPI.