

ABSTRACT

The development of cellular networks is currently growing rapidly so as to be directly proportional to the need for fast and quality internet connections and demand from users for increased data access speed, service quality and ensuring the continued competitiveness of 4G systems in the future that support high-speed internet access and stable with data service features such as mobile internet, video calls and voice calls to meet the needs of consumers of telecommunication networks and data services. This technology has been widely applied in the cities of Indonesia including Balikpapan. However, as the development of the city progresses, it generates user complaints against network connections in certain areas so it is necessary to measure the quality of 4G LTE network behind the board aims to find out whether the existing network performance. One way of measuring the network is to do a test drive.

In writing this Final Project conducted an analysis for the performance of 4G / LTE network obtained from the method of observation and discussion. Observation Method by measuring using Nemo Analyze software and must be in accordance with parameters including RSRP, RSSI, Key Performance Indicator. From the results of measurements with field observations done with optimization methods to improve and improve the quality of 4G networks so that more optimal.

From the results of optimization, many network optimization of 4G network is expected to optimize and improve the quality of 4G network performance according to operator targets and Key Performance Indicator (KPI) standards so that users of Telkomsel service operators are more comfortable when accessing the 4G network for internet purposes.

Keyword : Optimization, LTE, Key Performance Indicator