

Abstract

The evolution of mobile technology is progressing very rapidly. GSM 2G technologies are still widely used for mobile communications in voice services and data. Network performance is very influential telecommunication services used. Drive test is one method used to monitor network performance from the side of the receiver. Parameters were observed to determine the performance of a 2G network is the Rx Level, Rx Qual, SQI and Throughput. Rx Level is used for observation of the BTS receiver signal level. Rx Qual used to determine the quality of the received signal. SQI is an indicator of the value of quality voice services. Throughput observations show the value of data services downloaded and uploaded. The observation of a single site drive test obtain the value of Rx level ≥ -85 dBm can reach 80% for the frequency of 900 MHz in the frequency 1800 MHz while 74.95% gain, Rx Qual from range 0-3 can reach 26,58% for the frequency 900 MHz and 33,81% for the frequency 1800 MHz. The value of the maximum throughput can reach the target of 60 Kbps on GPRS download and 90 Kbps for EDGE, and the maximum throughput rate can reach 30 Kbps on GPRS for upload and 60 Kbps for EDGE. The value of the maximum throughput of a download or upload on 2G network in BTS Teluk still under normal condition with maximum throughput value results based on Key Performance Indicator (KPI).

Keywords :Drive test, Rx Level, Rx Qual, SQI, Throughput, GPRS, EDGE.