

## ***ABSTRACT***

The problem that occurred in the Majene region of west sulawesi caused the cellular telecommunications service providers to be required to develop in order to meet the diverse needs of their consumers.

In this study, network planning from *Global System for Mobile Communications* (GSM) to *Long Term Evolution* (LTE) be carried out in areas that have been determined for research. Panggali ali is a sub-district located in an urban center where the LTE network quality is still not optimal, so it requires an upgrade to get a more optimal network quality.

LTE parameters used are RSRP, SINR, and throughput. The results obtained on the Drive Test software show that the network quality is normal but not optimal for a good signal, so improvements are made using the Atoll software with significant results, the signal quality is much better than before with the RSRP value from -90.57 dBm to -69.01, the SINR value from 2.07 to 10.97 dB, and the throughput value from 12.712.36 to 58,816.14 Kbps.

Keywords: GSM, LTE, Migration, Drive Test