ABSTRACT

4G long term evolution (LTE) technology is the next generation of GPRS and 3G technology. But at 4g this lte can still serve voice and short messages. In 4G LTE technology has a wider coverage area than the previous technology. The parameters used are three, namely Cell Id, Signal to Interference Noise Ratio (SINR) and Reference Signal Received Power (RSRP).

Drivetest is done to measure telecommunication systems that move on radio waves in air from one direction transmitter or BTS to MS. In the drive test process, it is conducted to find out whether there is a disturbance or convergence that is not on target so that the area experiences badspot. To find out the occurrence of badspot can be seen for the red SINR section. Badspot itself occurs because the leverage position emitted is not on target.

In the Signal to Interference Noise Ratio (SINR), the signal quality is measured whether the signal emitted from the BTS to MS has a bad condition. It can be seen in the range for conditions above 16 dB and for bad conditions below 0 dB. In these adverse conditions, the area will experience difficulties in internet access. So optimization of the network is done.

For bad areas it is called badspot. If you experience badspot it is done by optimizing the network by changing the azimuth angle and adjusting the sectoral tilt antenna which consists of mechanical tilt and electrial tilt. The tilt antenna process must be planned by the RF Engineer to regulate properly in order to get coverage that has denser settlements. If the results are maximal, if the drive test is done again the results will be better.

Keywords: 4G LTE, Drivetest, Optimization.