

ABSTRACT

Interference is always associated with mobile communications technology. Interference caused by several factors, one of which is enclosed or closed signal from a transmitter with another signal (jamming signal) that has the same frequency and greater power. Interference is a serious problem and it should be minimized, Because great interference results in decreased user performance on signal quality. If not treated quickly will have a negative impact on the services provided to customers.

In this final project doing an impact analysis, how to handle and improve the quality of LTE network interference case from one of the largest operators in Indonesia. Interference handling in SMAN 3 Bandung is doing by analysis of worse cell data indicated by interference, then the data is analyzed based on some KPI (Key Performance Indicator) parameters, then doing FFT scan to analyze the characteristics or types of interference what happened in that area, Then field scanning process is doing to find out the frequency generated by this source of the interference and also to know the location of the source of the interference. If you already know the location of the source of the interference and what device is causing interference in the area, then the process of licensing is done with the coordinator of Monitoring Center.

The result of interference handling on LTE network at BDG068MT1 SMAN3BDG site are L.U.L. Interference -113,888 dBm, Service Drop Rate 0,059 %, Total User Number 408 jiwa, Downlink Traffic Volume 530.329,910 MB, Uplink Traffic Volume 59.082,366 MB, User Downlink Average Throughput 7,833 Mbps, User Uplink Average Throughput 1,912 Mbps, Cell Downlink Average Throughput 9,358 Mbps, Cell Uplink Average Throughput 1,552 Mbps.

Keywords: Interference, LTE, Key Performance Indicators