## ABSTRACT

In serving the needs of mobile networks will certainly be there when customers experience disturbances of the network, so that any network provider mobile communications providing services to accommodate customer complaints in order to increase the performance of any network provider mobile communications in accordance with the standards of each of these network providers where to report customer complaints on the XL Axiata occurred in area Sindang Sari Bandung.

In this final Project. network quality measurement carried out 4G by using the method of drive test. This measurement is carried out using software Genex Probe and for analysis of the results of a test drive using Genex Assistant. As for the case studies area at the end of the Project in the area of Sindang Sari Bandung operator XL Axiata. Parameters measured some of which are RSRP (Reference of the Received Signal Power), (SINR Interference and Signal to Noise Ratio) and Throughput.

From the results of these measurements, problems occurred is overshooting and blocking the building so the obtained value RSRP -100 dBm to 0 dBm is 87.05%, SINR 50 dB to 10 dB is 84.31%, Downlink Throughput 20 Mbps sampai 100 Mbps is 59.03% and Uplink Throughput 10 Mbps to 50 Mbps 98.74%. The results of the optimization of the 4G network in the area of value Sindang Sari, RSRP -100 dBm to 0 dBm is 99.74%, SINR 50 dB to 10 dB 89.48%, Downlink Throughput 20 Mbps sampai 100 Mbps is 81%, and Uplink Throughput 10 Mbps to 50 Mbps is 98.78%. Based on the results of the Optimization with the standard KPI operator XL Axiata for handler problem overshooting and blocking the building reaches optimal value, so it can be said customers can already return to use the services properly.

Key Words: Optimization, KPI, Drive Test, Sari, Sindang RSRP, SINR, Throughput.