

## **ABSTRACT**

*Quality of the network provided a telecommunication service is an important factor that into the assessment of user against the operator. The more often the user feel the inconvenience will the quality of communication services used will cause complaints or complaints from the user to the operator used, In the area Nata Endah Cihanjuang Cimahi Complex that has a history of complaints that are less good for the quality of 4G network operator XL such as 4G network and slow signal. So optimization is needed in the area.*

*To know the conditions directly at the location complain to do drivetest before using the probe then genex software results will be analyzed using softwares genex assistant to know the problems experienced in the area, as well as determine methods of optimization should be done to solve the problems in this area.*

*The results of the optimization process then check again by doing a drivetest after on location. When this drivetest results better than the condition before to do optimization and meet value RSRP > -100 dBm before 96.58% and after 98.67%, and SINR > 5dB before 27.69% and after 64.19. Serving PCI before Sector 2 (421) 54.76%, sector 3 (422) 43.60% and Sector 1 (162) 1.64%, and serving PCI after Sector 2 (421) 96.41%, sector 3 (422) 4.59%, and Sector 1 (162) 0.00%. So the optimization in this area successfully.*

*Key words: Genex Probe, drivetest, optimization of 4G, RSRP, SINR PCI, Nata ENdah Residence.*