

ABSTRACT

Customer satisfaction and comfort in performing communication with excellent quality services are the main purposes from a provider. Based on the results of Walktest, there was the LongTerm Evolution (LTE) network parameter that not appropriate with the Operator standard. Jatinangor Town Square Building is a shopping center with high traffic internet user each day that require specific consideration. This condition happened due to the complex structure of the building, that impact on outdoor Based Transceiver Station (BTS) signals. In the result, the signal quality received by customers in the indoor area is decline as well.

This study has conducted a planning of mobile network indoor LTE in Jatinangor Town Square using Lampsite with coverage and capacity planning. The plan was simulated using iBwaveDesign 7.1.6.61 software with the concern parameters to be analyzed was the score of RSRP, SINR and Data Rates parameters.

Based on the simulation results of indoor LTE network planning with Lampsite, it revealed an average score of RSRP parameter was -80.80 dBm up to -81.58 dBm for each floor. The SINR parameter revealed an average score of 20.20 dB up to 30.73 dB for each floor. Meanwhile, for the maximum Data Rates parameter revealed 50.06 Mbps. This study concluded that the parameter of simulation result has attained the KPI standards target, which significant to improve the quality and capacity of LTE service in the Jatinangor Town Square building.

Keywords: *Lampsite, LTE Indoor, Coverage planning, Capacity Planning, RSRP, SINR, Data Rates.*