

ABSTRACT

Along with the development of mobile communication system technology and the increase of skyscrapers in big city such as office buildings, hospitals, and malls that each day has a lot of visitors so that providers must ensure that the quality of the network provided it is good. Based on the previous walktest result, the quality of network received by user in Bandung Indah Plaza building can not be received well because the power from eNodeB suffered a considerable attenuation of the walls of the building being bypassed.

In this final project, IBC planning (Indoor Building Coverage) is done to improve the quality of the network located in Bandung Indah Plaza building. In this Planning, have been done walktest to know the condition of existing network at Bandung Indah Plaza building, also to do comparison between calculation based on capacity planning and coverage planning that aim to get the number of antenna to be used, and do the planning simulation using RPS software (Radio Propagation Simulator).

The result of this planning after done a comparison between capacity planning and coverage planning is to choose the most antenna that is based on coverage planning with 40 units of antenna. Based on the simulation result, obtained the average RSRP value is -77 dBm until -58 dBm and SINR of 15 up to 27 dB. The results are in accordance with the standard operator of smartfren.

Keywords: Walktest, LTE, network planning, Capacity Planning, Coverage Planning