

## **ABSTRACT**

The Jarrdin apartment is located on Jl. Cihampelas, Cipaganti, Coblong, Kota Bandung. The Jarrdin apartment has 23 floors and is a residential apartment that is very strategically located because it is located in an urban center with a modern vertical building concept. The number of walls is thick and very diverse construction which causes signal attenuation to increase. Building height factors also include signal attenuation factors. Based on the results of the analysis, the average RSRP and SINR values are still below the XL operator standard, which is  $\leq -90$  dBm for RSRP and  $\geq 5$  dBm for SINR.

The solution to overcome the problem is by planning the Indoor Building Coverage (IBC) installation on the LTE network in The Jarrdin Apartement Building as a first step to find out good handling for The Jarrdin's apartment. In planning the Indoor Building Coverage (IBC) a Drive Test is carried out first to determine the signal quality outside the building and find out whether there are BTS covering the building. Because the signal quality inside and outside the building is different, a Walk Test with TEMS Pocket software is needed to get quality network performance in the building. And with two scenario calculations, namely in capacity and coverage.

The results of this planning obtained RSRP parameter values on the Ground Floor, 1st Floor, 13th Floor, and 23rd Floor respectively for -33.58, -34.24, -33.03, -32.84 and reviewed based on the SINR parameter results of 9.04, 15.95, 16.04, 14.12

Keywords: Indoor Building Coverage (IBC), LTE, Capacity and Coverage

