ABSTRACT

On a communication network usually will experience traffic density or drop calls. In general, traffic density or drop calls occur when network capacity is limited in a crowded place, especially in the city center such as in Alun-alun Bandung City. Alun-alun Bandung city square has a 1,200 square meter garden area with always crowded and crowded visitors. With the large number of visitors, it affects the number of cellular network users in Alun-alun Bandung City.

For solving the problem in Alun-alun Bandung area, then do the planning by coverage area of the LTE network using implementation Combat BTS which can be easily mobilised and can be placed in a desired area that has poor quality. The first thing to do is to check the ground with drive test activities using the Tems Pocket. For the value of the drive test, RSRP parameters get 377 points or 33,8% with the "normal" category. For SINR parameters it's obtained 180 points or 16,22% by "normal" category. And for throughput parameters, obtained by 635 points or by 83,9% which is in the "bad" category.

After the test results have been made, the next step is by planning on a atoll simulation. For conditions on the ground found that around Alun-alun Bandung had four existing sites and as far as capacity planning and coverage planning calculation for a targeted site requires is three sites. The results of the Atoll simulations were obtained after the increased site that for RSRP parameters was increased by 30.2%, SINR by 12,2% and for the throughput with an increase of 30.2%.

Keyword : Coverage Area, LTE, Combat BTS, RSRP, throughput, SINR