

ABSTRACT

Based on the results of Drive test using operator X network in Stadium Si Jalak Harupat, Bandung Regency, can be generated lte network throughput value obtained less well and not in accordance with the parameters of operator X. This occurs especially when the event is held in the area of Stadium Si Jalak Harupat. While this stadium is one of the venues of the Under-20 World Cup 2021 makes this area a potential market for operator X so it needs to be done optimization on the Side capacity planning.

In this final project, the LTE Intra-band Carrier Aggregation network will be planning at Si Jalak Harupat Stadium, Bandung Regency. By comparative scenarios using carrier aggregation deployment method 1 (CABS 1), Single Frequency Network (SFN) to be able to improve the quality and capacity of LTE networks in the stadium. This planning simulation will be conducted using Fork Atoll 3.3.0 software with regard to rsrp, SINR, Throughput and User connected.

The result of this Carrier Aggregation LTE network planning can increase the network capacity value especially the throughput parameter by 2,401 kbps.

Keywords: *Carrier Aggregation, Throughput, Single Frequency Network.*