

ABSTRACT

Based on OSS Operator XL data, Kopo village has a high resource block (PRB) exceeding 80%, which has passed the standard threshold of PRB Operator XL, which is 70%. This adversely affects the throughput received by the user. From the results of the data drive test that has been carried out in the bandung kopo village area, the throughput value obtained shows from the Uplink side $49\% \geq 10$ Mbps, while on the Downlink side there is $45,67\% \geq 10$ Mbps, the data shows that the bottom is still in the low throughput category because it does not support the XL operator standard, which is ≥ 10 Mbps.

In the final project, a carrier Aggregation planning simulation will be carried out that compares the Intra-Band method at a frequency of 1800 Mhz with inter-band at frequencies of 1800 Mhz and 2100 Mhz. Where the intra-band aggregation carrier uses Carrier Aggregation Deployment Scenario 1 (CADS 1), while the inter-band carrier aggregation uses Carrier Aggregation Deployment Scenario 2 (CADS 2) and Carrier Aggregation Deployment Scenario 5 (CADS 5) on Atoll forks software 3.3.0.

Based on the comparison of the two method results, an inter-band method with a CADS 2 scenario is better to be implemented in dealing with low throughput problems in the Kopo area, because it experiences an increase in RSRP by 3.93%, SINR by 72,22%, downlink throughput by 523.30% and uplink throughput 414,71%. With the consideration of CADS 1, it has increased in value but not as much as CADS 2, while CADS 5 requires high maintenance costs and costs but does not experience a significant increase from CADS 2.

Keywords: Carrier Aggregation, Inter-Band, Intra-Band method, Forsk Atoll 3.3