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ABSTRACT

Network throughput optimization is the process of care or improvement througputt performance from mobile networks so that in accordance with the standards of the KPI. The optimization done in case of decreasing throughput performance due to the low power level of UE and interference from other cell.

In this final project, analyzed the causes of decrease the throughput performance of HSDPA (High Speed Downlink Packet Access) network from Operator A. Area analyzed on the cluster of TSM in the city of Bandung. Research done by existing performance data collection from statistic measuring results with drive test method. From the results of the drive test would be classified issues that cause a decrease in throughput performance. The parameters analyzed are the RSCP, Ec/No, RSSI, pilot pollution, and throughput. Network configuration is focusing on tilting antennas and pilot power. Simulation research using software Atoll.

After Optimization of network obtained that there is an increase the value of RSCP amounted to 3,87 dB and decrease the number of pilot ≥ 2 of 45%. With that kind of lead quality improvement make the channel is good. Evidenced, Ec/No performance increased by 32,2%. With increasing Ec/No, causing an incrase in performance of SINR, CQI, and decrease the value of BLER so throughput increased by 66,2% from 340,48 to 565,76 kbps. With a throughput of 565,76 kbps, the standard KPI from Operator A is done.

Keyword: throughput, RSCP, Ec/No, RSSI, tilting, dan pilot power