

ABSTRAK

Berdasarkan hasil identifikasi oss operator yang dilakukan di beberapa area penelitian *sub urban* yang memiliki persentase *physical resource block* sebesar 78,84%, *urban* yang memiliki persentase *physical resource block* sebesar 78,65% dan *dense urban* yang memiliki persentase *physical resource block* sebesar 77,16%. Kondisi ini menunjukkan bahwa penggunaan PRB >70% termasuk kedalam *indicator high utilization* berdasarkan standar operator SF.

Pada Tugas Akhir ini akan dilakukan penerapan *Multisector coverage* di daerah penelitian berdasarkan clutter *sub urban*, *urban*, dan *dense urban* pada frekuensi 2300 MHz yang dimiliki oleh operator SF. Penerapan ini akan memperhatikan kpi kapasitas *physical resource block* dan *total traffic*, serta parameter *RSRP*, *SINR*, dan *throughput*.

Hasil dari penerapan *multisector coverage* berdasarkan daerah penelitian yang telah ditentukan dengan memperhatikan kondisi awal jaringan, bahwa adanya penurunan persentase *physical resource block* dikarenakan sharing trafik setelah penerapan *multisector coverage* sebesar 46,65% di daerah *sub urban*, persentase *physical resource block* sebesar 40,99% di daerah *urban*, dan persentase *physical resource block* sebesar 50,71% di daerah *dense urban*.

Kata Kunci: *Multisector coverage*, *Capacity*, *Physical resource block*, *Sub urban*, *Urban* dan *Dense urban*

ABSTRACT

Based on the results of the identification of oss operators conducted in several sub-urban research areas that have a physical resource block percentage of 78.84%, urban areas that have a physical resource block percentage of 78.65% and dense urban areas that have a physical resource block percentage of 77.16%. This condition shows that the use of PRB >70% is included in the high utilization indicator based on operator standards.

In this final project, the application of Multisector coverage in the research area will be carried out based on sub-urban, urban, and dense urban clutter at a frequency of 2300 MHz owned by operator. This application will pay attention to the kpi capacity of the physical resource block and total traffic, as well as the RSRP, SINR parameters. , and throughput.

The results of the application of multi-sector coverage based on research areas that have been determined by taking into account the initial conditions of the network, that there is a decrease in the percentage of physical resource blocks due to traffic sharing after the application of multi-sector coverage is 46.65% in sub-urban areas, the percentage of physical resource blocks is 40.99% in urban areas, and the percentage of physical resource blocks is 50.71% in dense urban areas.

Keywords: *Multisector coverage, Capacity, Physical resource block, Sub urban, Urban dan Dense urban*