

## ABSTRACT

As the growing of the services and promotion that given by the CDMA telecommunication operator, the amount of costumer that using this services are increasing as the impact. Beside of that from the business side, there are few of new operator whom joining the competition. As the result, the customer satisfaction becomes an important indicator to win the competition and to keep the costumer so they will not moving to another operator. More over, in order to give an excellent services to the costumer, so it is important to have a good performed of network. Network Optimalization from its quality or capacity on the BTS (base Transceiver Station) as the interface, whether for transmitting or receiving signal between the MS (Mobile Seluler) and the BSC (Base Station Controller), as the result it would decrease the possibility of call drop, access failure, and blocking and gaining the value of call success.

This Final Task, discussed about network optimalization, data traffic processing, and its analysis on CDMA 2000-1x which is taken from ESIA (CDMA operator in Indonesia) on area Cempaka Putih, Jakarta. The Existing Network optimalization was done by Data Traffic analysis on the BSC. These Data consist of call attempt, call drop, traffic, access failed, call success, and blocking. The analysis process of data traffic will be done by the software which was built in PERL (Practical Extraction and Reporting Language) that will convert a text-formed data on BSC to the xls formatted, so the data will easier to analyse.

This final task output is the recommendation about the optimalization that should be done on the BTS which was researched. The Recommendation will include about building the BTS on the area which is need to cover, changing towers direction, or also by adding the BTS's sector. Every BTS will be optimized probably in different ways, depends on the condition of user's data traffic or BTS its coverage. So the result of optimization will presented by the percentage of call drop, access failed and also the lowest blocking percentage and the highest call success percentage. This data analysis was compared to the drive test data  $E_c/I_o$  and to the KPI (Key Performance Indicator) of ESIA