

ABSTRACT

Performance problems on the network, often experienced by the mobile telecommunications operator both GSM and CDMA-based. Something like drop call while talking, failed hand off, or a long call set-up is the usual thing to find. Many factors contribute to these events, either because of design or planning of the radio side of the PN, improper traffic forecasting, planning link budget is insufficient, increasing the number of users and the tips are not optimum network design. In telecommunications systems, the optimization step is very important considering the need for greater network capacity to meet quality of service to customers as well as an important step in improving performance.

This thesis discuss the performance analysis and optimization of network traffic-CDMA 2000 1x service StarOne Jakarta. Traffic analysis is based on analysis of data that includes parameters call attempt, success call ratio (SCR), the call drop ratio (CDR), the mean holding time per seizure (MHTS) and grade of service (GOS).

Results of analysis are followed by drivetest on the troubled spots and provide optimization recommendations aim to provide solutions and recommendations for improvements to the drop call ratio, a solution of the optimization side circuit RAN (Radio Access Network) is the side between the BTS and MS, such as changing the directional antenna , construction of new base stations and changing the BSS parameters. The optimization result is expected to improve customer satisfaction. To analyze patterns of traffic services obtained SCR voice service (99.344% > 96%), for SCR data services (nearly 100%), CDR is down percentage after tilting RABANA antennas at base stations, voice CDR (9.12 > 1.5%), the CDR data (<1.5%), MHTS (0.0999 min <1 min), OCC (3.59% <40%), GOS (<1%).

Keyword : *Drive Test*, Optimization, Traffic Analysis, CDR, GOS, MHTS, OCC