ABSTRACT

At the moment some cellular operators in Indonesia has implemented the DCS1800 technology. Urban area with high traffic needs higher network capacity. This is one of the reason the implementation of the technology. In other hand user needs better service in mobile communication. This cause operators to optimize their network performances. One thing that need attention is handoff or handover. Handover can't be avoided in mobile communication, because of this operator must take the best solution to handle the handover problem, especially in DCS1800.

This Final Project analyze the handover failure in DCS1800 system from FACCH logic channel signaling side which controls the handover process. the analyze process is done with observing the statistic data of handover process in the term of handover success rate, TCH RF loss rate and else. For main analyze focus factors such as received signal quality (RXQUAL) received signal power (RXLEV) will be analyzed based on the database parameter setting in Operation and Maintenance (OMC) which taken from field cases of PT Telkomsel network. Cases be taken are from BTS Sarijadi sector 1 and BTS Gegerkalong sector 3 West Java Regional on PT Telkomsel. From analyzing process we will do some optimization in handover performances on both BTS.

After the optimization of the handover performances, we will obtain improvement in HOSR (Handover Success full Ratio) from each BTS, that is in BTS Sarijadi Sector 1 from 85.62% raised up to 95.08% and in BTS Gegerkalong Sector 3 from 90.92% becomes 94.83%