

## ABSTRACT

Technology CDMA is a technology without cable, using spread spectrum for the disperse of information signal through wide bandwidth (1,25 MHz). CDMA Technology allows each user get the unique code to differentiate one user to other. Performance of CDMA System is limited by interference, its mean that capacity and quality is limited by interference energy that happened at used RF band. Hence can be said that a Link Propagation is become the main problem in cellular technology.

Every operator wishes to give the optimal service. To control and know the eligibility condition of network we need to optimize network to analyze the causes of non optimal service. Problem at CDMA 2000 1X system especially in RF level is PN pollution that happened at *handoff* area which is caused by influence of delay propagation cause the ambiguities of acceptance PN by MS, the emittance and accepted energy (RSSI) at low MS. The problem above will cause the drop call and interference to degrade the quality of service.

To solve the problem above, the optimization at RF level is needed. Several ways can be done for optimization, for example with the analysis of link budget at uplink and downlink, analyzing site coverage to reduce the interference. Analyze the traffic performance covering call setup success ratio and drop call rate.

From the analisys we can take the result that performance improved and drop call decrease from 1,10 % to 0,98 %, block call 1,24 % to 1,16 %. And also can give repairing to reach the determined QoS (Quality Of Service).