

ABSTRACT

CDMA technology has brought new color in telecommunication world by presenting high speed data packet service. CDMA 2000 1-X system is one of cellular standard technologies that is able to accommodate voice and data service with data rate up to 153.6 kbps. It is one of the alternative systems for AMPS or CDMA IS-95 to evolve into its next generation with more variative and reliable services.

Naturally, cellular system enables wider coverage area. In each of cell there is one BTS (Base Transceiver Station) which serves users in possible number and certain coverage area. General problem that commonly happen is the bad condition of RF signal quality. This also happens in CDMA cellular system. Those problems are drop call, handoff failure, etc.

Best service for every user is the aim of every operator. Mobile-8 Corp. as the one of CDMA 2000 1-X operator promises reliable service for their users. One of efforts that should be doing is solving the problems of RF signal quality. Every problem of RF signal quality can be monitored through controll mechanism by doing drive test metode. Based on analyse of controlling result, there are several improvement recommendations: i.e. antenna direction changing, antenna tilting, and power transmit changing. Result of the improvement are 0.34 % increase of originating call, 1.69 % increase of terminating call, and 11,96 % increase of RF quality. These three improvement processes support CDMA 2000 1-X cellular system into much condition.