

## ABSTRACT

PT. Mobile-8 as a CDMA2000 1X provider in West Java has been deploy 52 BTS (Base Station) which located at Urban Area and Suburban Area. At the recent years they are will be develope more 1 BTS in Bandung area and around. Due of they're planning purpose to reach their user potential which located either Bandung or Around.Rapid user growth become one of reason why they're will be expand their Network Coverage with capacity and Quality required.

Base Station design parameter must be consider antenna located, moise environment, Antena diversity, and Antena Sectorization. There is selected according to having optimum result planning in Quality and Capacity.

Overall, Planning orientation step which is used for planning there are A Number of user estimate, Channel allocation to provide capacity until 2010, Number of cell calculation deployment, Link transmission forward and reverse quality which is follow Eb/No and BER parameter.

Optimization result from coverage area planning CDMA2000 1X network in bandung and around consist of deployment 49 site which distributed 41 site in urban area and 8 in suburban area., Total allocation channel for urban is 2113 channel and 389 channel for Suburban. Service quality factor require has been generated with Ec/It channel (-10,84 dB) more than -13 dB standar requirement. While of logic channel allocation (Paging, sync, traffic) is followed 8.19 dB, 8.72 dB, 7.07 dB more than Eb/No Required, BER calculation is resulted 0.0000052.