

ABSTRACTION

Cellular technology development in recent age is accelerated by higher demand for high spectrum efficiency, larger capacity, and also capabilities to serve more better high quality of voice. IS-95 CDMA cellular system is cellular system have basic on CDMA (Code Division Multiple Access) multiple access technology that have ability to fulfill those request. Eventhough, there is CDMA 2000 1x system now, upgrading from IS-95 CDMA system, but IS-95 CDMA system still competent to be implement. The implementation of IS-95 CDMA cellular system is formed in IS-95 dual mode standart that can operate both AMPS and CDMA system as step to bridge evolution from AMPS to CDMA system.

In this Final Project will be discussed about some aspects that needed in cell planning for IS-95 CDMA cellular system at Komselindo Tbk, that take place on Pantura path (from Pamanukan until Losari). This planning will be focused on radio network planning that is one of cellular network part that have responsibility about connection between base station and mobile station.

Some steps that needed in cell planning process of IS-95 CDMA system are frequency allocation decision, link budget calculation and parameter of base station and mobile station equipment calculation, service area decission, prediction of subscribers growth, calculation of maximum channel capacity of CDMA, cell demand planning from traffic approach, and power transmit calculation of base station and mobile station. Next will be analyzed about the result of cell planning that consist of cell configuration analyze, and power transmit analyze of base station and base station.