ABSTRACT

The vast growth of Indonesian CDMA2000 1x's demands that exceeds 60 percents in 2007 (CDG:2007) and with its vast area that had not been covered by its technology, made the newly developed CDMA2000 1x's operators had an opportunity to achieve that unserved demands. One of its way to reach the opportunities, are by developing new CDMA2000 1x networks, including by building more new BTSs. In order to building new BTSs, operators must done some planning stages including demand forecasting, and BTS capacity planning.

In determining the numbers of CDMA2000 1x BTS process, it started from demand forecasting by using zone potential parameters. The result from this demand forecasting are total cellular demand from specific area. From that demand, operator's customer and also total traffic that produced from customers a can be calculated. And then how much capacity that needed in one cell can be concluded, to determine how many CDMA2000 1x BTSs are needed in covering demand in specific area

This application designing had some purposes that needs to be met:

1. Determine how many CDMA2000 1x BTS that needs to be build in Bandung city by using demand forecasting with zone parameters as its factor.
2. Determine CDMA2000 1x BTS locations in Bandung city
3. Designing application that can help deciding how many CDMA2000 1x BTSs re needed with its location in Bandung city

This Application design purposed to create output such as :

1. Demand Forecasting Formula
2. Forecasted Demand by using zone potential parameters
3. Number of CDMA2000 1x BTSs with its capacities,coverage area, and BTS radius
4. Number of BTSs that needed to be developed in each region in Bandung city

After the system has been tested, an analyze must be performed to achieve conclusion that supported its purposes.

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Keywords : Application Design, Demand Forecasting, Zone Potential, CDMA2000 1x, Geographic Information System