

ABSTRACT

The phenomena of development of wireless communication technology seem never end. Today, cellular operator *nordic mobile telephone* (NMT) move to used *code division multiple access* (CDMA) because the technology that they used before was old. With still at 450 MHz then CDMA that operation at this frequency called as CDMA450. CDMA450 is one of variant of CDMA 2000 1x radio transmission technology that is use spread spectrum system that using Code Division Multiple Access (CDMA) technology as the reason to satisfy the needs of third generation (3G) wireless communication system.

In radio technology, the lower frequency that we used then the coverage more wider. The coverage for frequency 450 MHz can be three until five times more than frequency 1900 MHz. If cellular radius for frequency 1900 MHz about 2-5 kilometers and frequency 800 MHz until 8 kilometers, the coverage for frequency 450 can be until 15 kilometers and 100 kilometers if used additional antenna.

From the result of planning, the customer estimation for next five years is 968.058 customer with site radius for urban area about 1,747 km and 11,49 km for rural area. And the number of site that needed for CDMA450 system is fewer than other technology that used high frequency. To display result of CDMA450 network system planning cell is using the GIS concept, in purpose to provide more detail base station location.