

ABSTRACT

The growing of wireless technology at present is quickly as far as information requirement that more increase. This matter is caused some factor, such as ability of mobile communication, the increasing of reliability system, privacy of information, development cost is cheaper than wireline, and high service existence that not limited by time and place thus the consumer can communicate whenever and everywhere.

TELKOM*Flexi* is wireless communications technology developed by Fixed Wireless Division PT. Telkom with bases of system CDMA2000 1x. This technology is answer of PSTN (*Public Switched Telephone network*) scarce that blocked by investment problem and long development time. Development of CDMA (*Code Division Multiple Access*) technology is not as mobile cellular but fixed cellular. Telephone equipment is used cordless phone and cellular phone, so more flexible and personalized.

In the operational, TELKOM*Flexi* can give voice and data service with tired speed 144 kbps. Bandwidth that will used is 5 MHz at frequency 800 MHz for 3 carrier frequency. At this final project, will be shown planning process and networking development analysis of TELKOM*Flexi* with case study in Municipality Malang. The area analysis include : determining amount and cell radius, calculation of link budget, lost calculation of propagation trajectory signal, calculation of link budget capacities, and calculation of peripheral requirement.

For planning until year 2008, there are 60216 potential subscriber. Number of subscriber will be distributed become 70 % for the voice service and 30 % for the data service, thus be obtained by a total capacities which on the market is 13999,33 kbps. To serve amount of the capacity, will be needed by much 28 BTS. While network equipment of BSC, MSC, AAA, and PDSN is 1 object. This planning result expected to become consideration by PT. Telkom if development of system TELKOM*Flexi* in Municipality Malang area started.