

ABSTRACT

Serving need about packet switched on wireless network will interested rapidly. The third wireless network will be base on packet switched and provide higher bit rate. In while, General Packet Radio Service (GPRS) recognize services on GSM network now give chance to available higher data service. GPRS is a data packet service system join in GSM radio physical channel for data communication.

If want to cover area on certain wide, it have to dimensioning. Research of this final assignment focused on element dimensioning problem of GSM network. The method to dimensioning GPRS network element consist of network performance analysis consist throughput and delay, dimensioning GPRS radio access consist of GPRS fixed allocation radio access and dimensioning on demand allocation radio access, and dimensioning GPRS infrastructure hardware : Gb interface, SGSN and GGSN on base limit system and hardware data

The result from this research for dimensioning GPRS radio access amount of fixed radio access channel and on demand radio access channel. In while, for infrastructure dimensioning there are amount E1 truck channel on interface Gb to connect BSS with SGSN, capacity and amount of SGSN and GGSN need for appraisal certain amount user. Based of research result, this research could compared and recommended for PT. Excelcomindo Pratama to build their network in Yogyakarta

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