

## ABSTRACT

Attendance GPRS, not make SMS left. From survey result in [www.gsmworld.com](http://www.gsmworld.com) said that service SMS will remain to be searched and used widely by subscriber. Even by using fiturs of excess GPRS, SMS earn improved service quality such as speed, delivery time and sum delivered packet SMS.

This final project a mathematical model to analyse performance SGSN in service of SMS Over GPRS, where at SGSN modelling into forming mathematical that is by using queue kendall. Obtained by real data real which is taken away from TELKOMSEL Bandung, then the obtained data processed by using Microsoft Excel 2003.

Analysis conducted to 1 cell, in order to be seen influence to performance of GPRS network hence performance seen from amount of user SMS over GPRS in 1 cell.. Result of calculation show that ever greater sum delivered packet hence the chanel that is needed for the packet delivery will be ever greater. During utilized channel amount remain to while user increase hence delay that happened in system will be ever greater.