

ABSTRACT

Nowadays, telecommunication facility can't be separated from human's life. From day to day, the needed of telecommunication facility is getting better, even on quantity or quality. One of telecommunication facility is SMS via celular phone.

Believed in there's many more that can get from SMS technology and many fixed telephone user compared with celular phone, so PT.Telkom try to develop new product called Telkom SMS which is SMS service for fixed phone subscriber needed so that can deliver and accept short message by using special telephone device called SMTE. Message which is delivered will pass SMSC which is having characteristic *store and forward*. SMS via PSTN can be implemented on user who have CLIP and non CLIP feature on SMTE.

From datas which are taken from field, for the using of R2 signalling sytem, message delivery rate from sender to receiver still need a long time. For example, a message can be delivered from sender to server needs 11,28 s and from server to terminal needs 26,9 s. It is taken from average times that is taken from field measuring, so that the delivery time still less effiecient. From the data calculation, we can get the performance of fixed SMS system, still in the good condition which its GoS = 0 and delay time system limit less from 90 s, it is because fixed SMS service is a new service so that the fixed network user still do the trying session, not the needed session, like voice service.

This final task is discussed about analysis of system's performance, such as *throughput system* and *delay time system* on *fixedSMS* and R2 signalling analysis for delivery and received SM between SMTE