

ABSTRACT

Short Messaging Service (SMS) is one of the services offered by cellular operator that often be used. This service is common be used either by GSM or CDMA2000-1x network user. The advantages of SMS are cheaper cost and efficiency factor; in addition, highly cost for voice service causing SMS became most favorite service.

As the favorite service, SMS hasn't showed it best performance. Not all SMS sending was success, there are some SMS delivery failed. This failed especially happen to SMS transmission between two different technologies of network telecommunication. The SMS failures occur in network intersystem (either CDMA2000-1x or GSM), and also in SMS packet format interconnection between CDMA2000-1x (IS-41) and GSM (MAP). The interconnection between CDMA and GSM network take place in SMSC Gateway.

The purposes of Indosat StarOne Short Messaging Service Centre (SMSC) analysis are to find out performance of the system, and also knowing failure indication parameter, especially on the interconnection problem. The analysis result show numbers of performance parameter measured, such as service rate system at busy hour, utilization factor, throughput, and packet loss. The analysis also shows that system on stable condition, although it wasn't at ideal number. The other results produce that different packet SMS format wasn't the principle cause of sending failure.

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