ABSTRACT

Telkomsel is the first cellular telecommunication operator in Indonesia that provides 3G (third generation) services. With 3G service, user will feel new amazing experience in the new era of cellular telecommunication industry (combination of voice, text, and video) through the following services : video call, live mobile TV, mobile video, high speed internet browsing, and high speed data download with speed up to 2 Mbps (mega byte persecond).

Community interest on Telkomsel 3G service is very high. Not even a month from first launch in the middle of 2006, there are already 170.000 Telkomsel user enjoying 3G services. With this many 3G service user, there are probability that Telkomsel will face obstacle and problem in implementing 3G service, whether in quality or quantity, including traffic and coverage aspect.

This final task will analyze traffic performance for voice, data, video call, mobile TV, and mobile video service on Telkomsel 3G network in Medan, north Sumatra. Therefore, monitoring on voice, data, and streaming traffic in busy hour was conducted, in December 2006. So we can get traffic parameters based on standardized measure like ASR (*Answer to Seizure Ratio*), SCR (*Succesful Call Ratio*), SCH (*Seizure per Circuit per Hour*), MHTS (*Mean Holding Time per Seizure*), OCC (*Occupancy Circuit*), GOS (*Grade of Service*), to see traffic reliability on Telkomsel 3G service in Medan.

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