

## **ABSTRACT**

Associated with technology expansion and customer request, Telkomsel as the first cellular phone operator in Indonesia supply a service which some customer can feel a new era in telecommunication industry, is called 3G (third generation). Some customer can enjoy of many 3G services, among other are voice service, data service, and video call, or we can say it Triple Play. Many of customer proclivity is high with that services, particularly when Idul Fitri. Customer usually use that service to express an Idul Fitri greeting to their brother/sister and their colleague. This fact make some problem, many customer is not satisfied with 3G network performance of Tekomsel cause this case.

This thesis analyze traffic performance of data service, voice service, and video call for Telkomsel 3G network in Yogyakarta. For the matter of that, must monitoring of these traffic during September 2009, the monitoring is part into two period, the first is normally day, and the last is when peak traffic. An arrival data is used to determine a traffic parameters which based with standard database, 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), and the last is drop call ratio.

For the result of traffic parameters of Telkomsel 3G network in Yogyakarta when peak traffic, show a high rise traffic comparise with normally day. The ASR rate is 93.98 %, SCR is 89.13 %, SCH consists of 18.31111 call/cct/hour, MHTS valuable 39,83 minutes, OCC rate is 48.8849 %, and the GOS rate is 5.607 %. Beside that drop call rate value is not fulfill with standard database, the value of drop call rate is 5,590 %.

Key word ; Triple Play, 3G, Traffic