ABSTRACT

Telecommuniation network revolusion for the moment have aimed at Next Generation Network (NGN) so it will have been formed network convergence which have been intergtated packet switched network at IP technology platform. As a result, UMTS specification is arranged with existing MGW at 3GPP release 4 have target to increase IP network. During Sigtran standardization have protocol have been formated architecture signaling transport SS7 pass through IP network. Amendment be going to IP have encourage concept or new platform the future will be directed for change traditional network TDM.

In this Final Project be done performance comparison Signaling Transport (Sigtran) with Signaling TDM for A-Interface. Signaling protocol pass through physical layer E1 over TDM and IP layer over Sigtran. Interface messages are directed BSSAP. Messages SS7 A-Interface advocate connectionless and connection-oriented by Signaling Connection Control Part (SCCP) as layer transport. Signaling messages TDM at MTP layer, whereas M3UA dan SCTP on Sigtran. Data parameter TDM signalling obtainable PT. Indosat but parameter Sigtran with newtwork simulation (NS2).

The result that with use Sigtran more effecient than TDM. TDM's Bit rate is 64kbps ss7 at link E1 (2.048Mbps) whereas Sigtran's bit rate pass throught ethernet from simulation NS with througput 2 Mbps is 1878.86Kbps. There are several measurement based on parameters in TDM signalling result, these are caused by the ineficient channel. Result of Sigtran that the widder bandwidth, the smaller selay, packet loss and Jitter but does not th througput. It is getting higher.

Keyword : Sigtran, SS7, 3GPP