

## ABSTRACT

FO-nization is activity to widening the fiber optic access network while to change transport system of *DLC(Digital Loop Carrier)* from HDSL system using coaxial as transport E1 to be a fiber optic. By this substitution reliable transport system of DLC increasing, because optical system is insensitive to electric interference, less attenuation, bandwidth have bigger capacity and small size, have isolation between transmitter and receiver, and also it have good ability for data channel with high stability.

In installation fiber optic that PT.TELKOM had done, especially in Dago region was in large quantity. The reasons were the cost of the fiber optic instalation whether in large or small quantity is same; the cost of optic core is cheap; it has purpose to service the non-Teleponi customer and to anticipate the new telephone installation. In that large quantity, not all of the fiber has been used for the telephone customer. Because of this, PT. TELKOM utilized this abundant optic fibers to do the other services such as data and video. It was been applicated in fiber optic utilization example voice for flexi, data for internet and video by Telkom Vision. For the point that there is exchanging from copper cable system in transport system from HDSL to OMUX by PT. TELKOM in STO Dago. The research have done at ONU RT1, RA1, RQ1, RN1, RL, RB1, RB2, RH1, RU, RA2, RV1, RW1, RW2, RE, RM1, RS, RP1, RQ2, RR, RN2, RT2, RB3, RH2, RX, RAE, RM2, RV2, RAF, RP2, RAG, FRA and FRS (96 cores) in STO Dago Bandung.

From this analysis and evaluation of the fiber optic utilization for voice, data and video in PT. Telkom is planed to meet the demand of that services in quantity. And the quality we can see from the Power Link Budget and Rise Time Budget analysis, it is proper with  $-22,2982525$  dBm (from Pth=  $-35$  dBm) and  $0.2475$ ns ( $t_{\text{system}} = 4.5$  ns).