

## ABSTRACT

Request there of telecommunications service not only in urban area, but also reach suburbia. Town Tuban represent small town which is expanding in Java Timur. Although province that way Town Tuban have demand potency which enough high. In cable house potency data, in the reality the amount of telephone channel which still is available (empty of reserve and goodness) equal to 622 POTS. While requirement of service phone according to forecasting until year 2010 experiencing of accretion equal to 2225 POTS. That thing represent one of the factor for the addition of capacities. Besides factor above PT. Telkom also opticalisation cymbal at local network in town entire all Indonesia.

Network fiber optic provide the level of needed capacities. optic fibre represent one of the transmission media which enough rely on. Local network access fiber have some excess compared to with local network access copper. Besides serving voice service, local network access fiber also serve the non voice.

In this time STO Tuban consist of 14 RK and still use copper cable. At this final project will be studied to regarding local planning access fiber by using AON technology specially PON (Passive Optical Network) with FTTZ (Fiber To The Zone) application modus. Total demand based demand forecasting until 2010 is 11.466 POTS and 65 ISDN BRA service. System multipleks is PDH 2 Mbps and use V5.2 interface. Planning cover forecasting of requirement of extension, determination of used peripheral and desain.