

ABSTRACT

The increase of the economical condition of the local society causes the increase of various telecommunication services need. The available network is only able to accommodate the sound services meanwhile the present society demand is not only the sound services (POTS) but also the non POTS services such as data, picture, and the video services especially in internet access, as a big number of information, affordable cost, faster, and the fixed standart of quality are demanded.

The DLC (Digital Loop Carrier) is basically used by central. DLC is system which has a module shape is intended to solve any kinds of problems rises in an area of public services both the telephony interactive (POTS, ISDN BRA/PRA, leased channel $n \times 64$ Kbps with $n \leq 30$) of the high speed internet access and the broadcasting services (CATV).

One of the problems solution caused by a limited network of the present time for handling the multimedia services is the use of an Optic Fibre network system which its function is as a transmission media. The reason of using this is the Optic Fibre has a large ribbon, a relatively small dimension, and it immunes to an induction.

In this Final Project, the writer also discusses the plan of a Fibre local access network which uses the DLC technology in STO of Sleman Yogyakarta. The plan is started with the forecasting of the telephone instalment demanded by the local society both from macro and micro point of view, the forecasting of the other services demand (non POTS), the last is the recording of costumer's area distribution. The result of these forecasting and recording is used as a basic of planning included choose the suitable technology, also determines the kinds and numbers of equipment (BoQ) needed. The result of this plan is a kind of picture that can be as a reference for a related side.