ABSTRACT

ADSL represent a technology of xDSL modem with transmission mode of asimetrik to channel digital data service and POTS (*Plain Old Telephone System*) concurrently by using 1 copper cable. With this technology, speed of data transmission (moment of *upload* and of *download*) can be adapted by requirement. This technology applied to use user telephone copper cable network. So that can use this technology at home, user phne channel have to be attributed to a splitter and central of telephone which have been provided with module of ADSL called DSLAM (*Digital Subscriber Line Access Multiplexer*).

The growth of ADSL technology fast so. Telkom as a telecommunications service have given service of ADSL to the user in the form of service of Speedy. This Service exploit network phone which have been owned by the user. With this service, user can enjoy various facility able to be obtained from technology of ADSL like *video on demand, video of teleconferencing,* and also *high speed internet access.*

Campus of STT Telkom have been performed by Cooper Access Network woke up by PT. Telkom in the year 1995. But untapped effectively/optimal. The Cooper Access Network not yet incircuit with the central of telephone. To maximize usage of acess, hence this final project applied and realized a network that able to give service of ADSL. This Network Design started with central activation of the PABX, installation peripheral of DSLAM, last is development the central connective cable network of PABX (Private Branch Exchange) with consumer. With scheme of network later application like video of on demand, video of teleconferencing, and also service of high access internet speed can be applied.

Key words : ADSL, DSLAM, modem, splitter.