

## **ABSTRACT**

*Recently, telecommunication business is progressively expand, especially in high speed data rate. PT.Telkom, which is one of telecommunication operator, nowadays is developing data access service called **Speedy**. **Speedy** is service access broadband based on ADSL (Asymmetric Digital Subscriber Line) technology, it is exploiting copper cable that was spread out before. In order to get better performance and easier maintenance, PT.Telkom spreads out fiber optic cable from central to Remote Unit (RU). As the consequence, there are customers in fiber optic link can not enjoy **Speedy** without addition of Remote - DSLAM equipment in Remote Unit (RU).*

*This final assignment discuss a network planning of R-DSLAM network based on Passive Optical Network (PON) to optimize Speedy service to customer in local access fiber link. PON is local access fiber technology which uses passive optic equipment in its optical distribution network (ODN). PON has special feature on its passive splitter component which is more efficient in network installation.*

*Therefore, this final assignment research is focused on how applying PON technology in R-DSLAM configuration network for **Speedy** service access. This research represent picture of planning result that located some PON network equipments in spreading point in service area.*

**Keyword : JARLOKAF, Passive Splitter, PON, R-DSLAM, Speedy**