

ABSTRACT

The meet of mobile communication customer's need is the most important thing to be attended by the operators nowadays. The improvement of multimedia telecommunication has made all information and communication need become a basic services that being demanded by the customer. To fulfill the need, the operator need a wide, strong and reliable service and also a broadband access on a prime quality. Fiber optic as one of transmtion media is believed to answer all the need. With its characteristics which is able to handle the interference, smaller loss, bigger capacity, and a competitive price make fiber optic to be considered as the answer for all term condition stated before. SDH (Synchronous Digital Hierarchy) is the advanced improvement of PDH (Plesiochronous Digital Hierarchy), which is selected because its capacity and transmtion rate that is bigger than PDH.

In this final project, we analyze technically and teoritically system (Link power budget, rise time) and also the reliability of SDH system that is used on transmtion network inner Jakarta implemented by PT. Indonesia Comnets Plus so that we can evaluate the existing network, if we need replacement, new repeaters or re-allocation location and exact distance among repeaters to make a good quality of signal (Data and Voice).

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