

ABSTRACT

NETWORK TRANSPORT PLANNING FOR LINK MEDAN-SIBOLGA- PADANG TO ACCOMODATE CHANNEL DEMAND UP TO YEAR 2009

Sumatra's High Performance Backbone Network Overcoming burden traffic bigly capacities of $n \times 2,5$ Gbps to each different link. Existing network HPBB of Topology Sumatra still point to point.

From above problems, hence this final duty will be planned a network of transport link Medan-Sibolga-Padang to accommodate canal requirement up to year 2009 by using lasing EDFA, being based on technology SDH by calculating and determine energy budget (power budget), rise time budget, system performance, and also apart to usher amplifier and sum up amplifier.

Result of planning earn to handle 1×10 Gbps with configuraton of network use 8 EDFA, 2 FBG (Fiber Bragg Grating), totalize peripheral STM-64 5 devices which through of town Medan, Tebing Tinggi, Pematangsiantar, Sibolga, Bukit Tinggi, Padang by using system of protection BSHR/LPS (Bidirectional Self Healing Ring/Line Protection Swith).

End result of planning in the form of most route precisely by paying attention to requirement of drop/insert traffic in every node as long as link Medan-Sibolga-Padang, volume of optic fibre and sum up supporter peripheral that is needed (Amplifier, OADM,etc). Planning of this final duty expected will be obtained by configuration of transmission system owning performance and mount high reliability, especially be evaluated from facet of protection and availability.