

Abstract

Telecommunication Technology development is being marked by the development of Synchronous Digital Hierarchy (SDH) transmission. SDH transmission was developed to overcome the limitations of recent transmission system which is Plesiochronous Digital Hierarchy (PDH).

PT. Telkom will develop new SDH Microwave Digital Transmission network for Pagal – Kupang. This development is being purpose to overcome the traffic development which is increasing rapidly. The existing GMD transmission network is ALCATEL GMD PDH. But by building new network with large capacity in Pagal – Kupang will cause bandwidth Bottle Neck in Pagal. This happened because the network bandwidth between Denpasar – Pagal is smaller. To overcome the bottle neck problem, the existing Pagal – Kupang GMD will be relocated to Denpasar – Pagal.

This final project is planning Pagal – Kupang network relocation to Denpasar – Pagal. In GMD planning this necessary to calculate the power link budget. So that, the planning could fulfill the ITU – R. Hopefully, the planning result could fulfill the bandwidth demand from and to Pagal. The planned of relocation transmission network of microwave digital may be done because based of calculation in teoritically. The result of availability system is more than ITU standard that is 99,963 %. Based of calculation and analysed the solution that give by relocation network could meet a demand of bandwidth from or to Pagal in three years later.