

ABSTRACT

Unitary Republic of Indonesia is an archipelago that stretches from the east end to the west end with the geography stretched far and makes communication constrained by time and distance. To overcome this geographical constraints, required telecommunications infrastructure networks that can narrow the gap and shorten the time to unify the islands of Indonesia in a loop communication network. To meet these needs, the Government in collaboration with telecommunications companies to make mega-project network "Palapa Ring" is a network of high-capacity fiber optic cables are laid under the sea and serves as a liaison delivery of data and information among the islands in Indonesia.

In a design scheme, the network Palapa Ring for the Maluku island expanded cable under the sea will be a backbone and connecting the islands to the a landing point. Furthermore a landing point network will be connected to the extension to be able to reach a point in every county and city in the Maluku island does not become a landing point of the Palapa Ring network. In determining the location of the anchor and the network this extension, the factors to consider is the geographic and population factors. After looking at these factors, it was determined 11 Point Landing as well as the anchoring point 7 Point Extension and calculation Optical Link Budget and Rise Time Budget. When calculating total attenuation value is still very high, it takes a couple of Optical amplifier useful to strengthen the power to send and receive on each link of this network. Thus this design can be implemented in the real situation.

Key word : Palapa *Ring*, Landing Point, Network Extensions, Maluku