ABSTRACT

Optical fiber communication system planning linking the Ambon-Sorong, Ternate done to succeed the Palapa Ring project that is initiated by the government, namely optical backbone network that is on the northern sector of Eastern Indonesia. This is done to reduce the digital divide people who lived in eastern Indonesia, which is still limited telecommunications infrastructure.

Planning using DWDM technology (Dense Wavelength Division Multiplexing) which is a technique that involves the transport of fiber optic multiplexing of many different wavelengths into a single optical fiber, thus reducing the need for device and the efficiency of optical fibers. This plan discusses forecasting methods, factors affecting forecasting, creation of profiles based on the map seabed bathymetry, sea cable route determination based on topographic conditions

The communication system is planned to accommodate the needs of the canal until the year 2020 with a reliable level of performance shown by the power link budget, a budget that is adequate rise time, power rationing system is sufficient, and the protection system.