ABSTRACT

Today, communication development is most quick. The system of communication digital was to close to use inn communication networks. One of them is satellite communication network. Satellite communication network can used to necessity communication inn Indonesia, can used in town and in remote area.

If we see from technology development, remote communication is not complete. In my project, has designed program a system to complicate remote communication with used SCPC system. SCPC (Single Channel Per Carrier) is a good access with fork canal frequency principle. The plan of SCPC will use with characteristic Bit Rate 13,6 Kbps. And Telkom I is the satellite used with FDMA (*Frequency Division Multiple Access*) system. Every carrier brought one information. Used BER 10⁻⁵. VSAT diameters used 1,8 m with power needed 0.16 5 Watt, and HUB diameters used 10 m with power needed 0.022 Watt.

Base on the calculation on this project, this plan produce 193 paths where one path have two carriers. Amount of transponder needed 25% or ¼ of transponder. And amount of carrier can served on this system in one unit of time are 386 carriers. Simulations used in this thesis using Android. That can be applied using a highly developed communication media today, namely mobile phones, tablet and programsbased on Android.

The Project hoped can be used and managed by government. To created the really real project, have done studied more detail.

Keywords : FDMA, SCPC, demand, satelit.