

## ABSTRACT

Growth of information technology and telecommunications expand very quickly along with requirement of service of telecommunications service for the customer. The speed of request of telecommunications service very quickly so that very difficult to handle only rely on the system terrestrial which there have, especially for the purileus of difficult reached. Since year 1990, satellite technology viewed as one of appropriate technology to provide the adequate solution in some state. One of application from technology of satellite communications is VSAT (Very Small Aperture Terminal).

VSAT communications network consisted of a main station and a number of remote station (customer station) laid at geographic distantly, so that a rise a lot of problems. In this case, the transmission process, access method, and equipment used by hub station and remote station of VSAT telecommunication network very determining to fulfill telecommunications service in some location with the other which have dissimilar location specially in rural area at Province of Lampung.

To overcome the problems by adjustment of VSAT technology (Very Small Aperture Terminal) using the TDMA Slotted-Aloha access method. In the planning, need to be considered about the geographical condition in Lampung which is not uniform. Others, the economic condition and the technique which used also have to be consideration. the equipment usage, access technique, modulation technique, and calculation of link budget serve the purpose of measurements in the planning.

The  $(C/N)$  system result is more higher than  $(C/N)_{req}$  with 2 metres diameter of VSAT and 7 Watts power transmit also HUB station with 8 metres diameter and 8 Watts power transmit has 3.97 dB margin at inbound link and 9.24 dB at outbound link. The difference from  $(C/N)_{total}$  sistem and  $(C/N)_{req}$  about 2.84 dB gives conclusion that the system still has margin for possible bad condition ( $(C/N)_{total}$  sistem = 11.25 dBHz ;  $(C/N)_{req}$  = 8.41 dBHz).