

ABSTARCT

The need of information continous to increase, specially toward internet and multimedia, also the development of information technology itself have been made internet as the effective media for the people to get the information also entertainment, that is for business society, education society, government also for the general society. Internet not only become the necessity for the people hwo live in the city (specially in Java), but that become the need for the people generally., including the people hwo live in the other island outside the Java.

Terrestrial infrastructure that have been spreading in Indonesia have the characterisric, one side that Bandwidt unlimited expansion, but the other side that have the disadvantage in mobility and flexibility. Satellite technology can be a solution for that problems, with the flexibility and mobility belong the satellite, than, the satellite able to cover all of the area in Indonesia. In this final project, the VSAT system used as the terminal for internet access trough the Telkom-1 satellite that Indonesian haved.

Using VSAT remote that uniform all over Indonesia with 1,8 metres antenna diameter and 5 watts power transmit accessed satellite simultaneously using the star network configuration, with the Hub as the center earth station, that have 7 metres antenna diameter and 8 watts power transmit, able to provide 1,25 dB margin for the Inbound link and about 42,47 dB for the Outbound link in the rain sky condition, for clear sky condition provide 4,18 dB margin for Inbound link and 4,93 dB for Outbound link. For the next research, can use more efficient multiple access in Bandwidth for Inbount link better than FDMA – TDMA Slotted Aloha, also that necessary to investigate mre detail about the performance TCP/IP over satellite and can developpe with joining another internet services like VoIP and Video Conference.