

## ABSTRACT

*Cable modem is an equipment at subscriber side which can give data access from cable TV network. Cable modem development always related with cable TV technology. Now, almost all of TV cable networks are combine fiber optic with coax, there is usually called Hybrid Fiber Coax (HFC). HFC give larger capacity and two way transmission, it's used for developing cable modem system. With the fiber optic network, cable modem can reach 27 Mbps in downstream and 500 kbps until 10 Mbps in upstream.*

*Subscriber density is the most important thing to design upstream and downstream traffic capacity. This final project is going to make upstream and downstream traffic planning and also calculate amount of equipments which can served area of PT.TELKOM Bogor.*

*This planned is through some steps which cover : subscriber density plan, traffic plan, and the last is calculate amount of equipment. Finally, the purpose of this planned is give optimal service to the subscriber.*