

ABSTRACT

Nowadays, communicating by internet has been grown so fast. The speed of transmission, number of data transmitted, and reliability are the main pursuits that could not be neglected in communicating by internet. In other side, limitation of transmission Media (copper cable) representing problems exist in communications internet. in that way.

GPON (Gigabit-capable Passive Optical Network) is one of technology to access internet using fiber optic al transfer mediator to end user. GPON has been launch by ITU-T , and now it has able to accommodate legacy system which implement in end user access line. This technology support the high speed, improvement in security, big bandwidth and choice 2 layer protocol (ATM, GEM, Ethernet).

In this final project, done by scheme of optic network for the service of internet by using technology GPON (Gigabit-Capable Passive Optical Networks) by determination of scheme area relied on requirement of customer of service. Then, done by a existing data intake is field cover the peripheral and network eksisting. Afterthen, done by a analysis and yield an scheme of optic network by using technology GPON.

Key: GPON, QoS. Legacy System