

ABSTRACT

With the existence of the streaming technology, DSL network which is only designed at first to provide higher speed internet access in comparison with dial up modem, had been developed to be able to send high quality video to many user through coil coated wire. One from many obstacles of the DSL network is the bandwidth limitation provided by the ISP (Internet Service Provider). DSL Provider Company is only able to serve a limited bandwidth ,or even relatively low, for each customers. In fact, many DSL providers can only provide less than 20 – 30 Kbps bandwidth in mean to each customer.

To send the IPTV application to the clients, it needs higher bandwidth. Meanwhile, the recent DSL network nowadays is designed for web surfing that only need smaller bandwidth. Therefore, most of the ISP are evolving their access networks. One way to develop cheapest and easiest way is using IP Video Router in to their access networks.

In this Final Task, the author perform a comparison between a conventional DSL network and implemented IP Video Router DSL network through NS2 network simulation software. From this, the comparison will define better DSL network in performing IPTV application.

From simulation and analysis at this Final Projects, can be concluded that when both DSL network without background trafik, then its result same between the two DSL network. However when both network added with background trafik then network conventional DSL unable to handle trafik to user. **But for DSL network with IP of router video admit of handle traffic to user.**

Keyword : *Digital Subscriber Line (DSL), Quality of Service (QoS), Internet Protocol Television (IPTV), IP Video Router*