

ABSTRACT

Internet Protocol Television (IPTV) is a method of distributing television image and sound over the Internet Protocol (IP). The features that IPTV is able to broadcast live or prerecorded digital video and can perform capturing and transmitting programs from different sources. One of the main design goals of IPv6 is to handle streaming video. New IPv6 format can improve the quality of the image seen by the viewer, and reduce the cost of content owners who offer such services. The combination of IPv6 and the availability of broadband technology will enable a business model that would eventually change the face of television and the Internet.

To overcome the problem of an IPTV applications that can be implemented on an IPv6 network, then the Final Project is designed to provide an application that IPTV such as Live Streaming, VOD (Video On Demand), record TV, as well as the dynamic scheduling of events. In the IPTV application uses VLC to run IPTV server functions in an additional server and player plugins used by the user. Then for the webserver and database server using XAMPP. Adobe Dreamweaver CS5 is used as a software for designing web. As for the hardware devices using Cisco 2600 router. In network configuration, the entire interface to be set to use IPv6 and routing protocol used is RIP.

The results obtained in this final project is a digital multimedia applications such as IPTV technology Multichannel With IPv6 web-based with some features shown are privillage for the user, guest, admin, live streaming, VOD (Video On Demand), Record TV and broadcast schedule dynamic. With the test results in the application of IPTV QOS approaching realtime with valuable Jitter <30ms, Delay value between 0-150 ms, Packet Loss less than 3%, Live Streaming Throughput for valuable 1 - 2 mbps, and Throughput for VOD are worth between 2 - 15 mbps.

Keyword : *IPTV, Multichannel, IPv6*