

## ABSTRACT

Progress of multimedia and network technology had stimulated improvement vary of interactive communication services, like IPTV. Internet Protocol Television or more known as IPTV is a service that provides content of television programs and other interactive entertainment content through an IP broadband network. It's interactively than conventional TV services makes many people like it. But in the other side the improvement using of IPv4 address allocation that exponential to it's summing had curried of lacks of the address IPv4 allocation, besides of that the high price of software licenses and the rule of software's copy right that become one of basic component to run of this IPTV application likes Microsoft Windows operating system make high price to provide the IPTV application for IPTV providers and decrease the improvement of IPTV technology for engineers who want the improvement of this technology.

On operating system environment, Linux as one of the open source operating system that known it's ability using as a server. Beside of that, the present of IPv6 with higher address capacity than IPv4 is a solution to overcome the limitation of IPv4 address allocations.

So far, in this final project, the author try to make IPTV service application as Live TV Broadcast, Video on Demand and Music on Linux operating system and implement it on IPv6 network. In this implementation Linux operating system shows more ability as IPTV server than Windows. Because Linux has an average value delay processing above 0.626362678 ms at step three on B scenario measurement for 768 kbps bit rate. In the end I hope, may this final project can be a real time video application that can be implemented on IPv6 network using any open source software with the purpose to avoid copyright violation and to develop this technology for the next.

Keywords : IPTV, Linux, IPv6