

## ABSTRACT

Internet Protocol television (IPTV) is a system through which digital television service is delivered using the architecture and networking methods of the Internet Protocol Suite over a packet-switched network infrastructure, e.g., the Internet and broadband Internet access networks. IPTV provide flexible service, from low resolution to high quality. It gives a realtime service so it use UDP as transportation protocol. This protocol is connectionless so it depends to under layer quality. IP Multipath is one way to increase quality of link.

IP Multipath is using multiple network cables/ports in parallel to increase the link speed beyond the limits of any one single cable or port, and to increase the redundancy for higher availability. It can be done by bonding in linux operating system.

At this final project are described how to build the system, how does it work and analyse its performance by QoS and QoE. IP Multipath Implementation in system use bonding mode balance-rr, balance xor and broadcasting. The difference is the way of traffic distribution to all slave interface in system.

The result of evaluation show the implementation of ip multipath can increase the performance of system . Based on result of QoS measurement is obtained without IP Multipath, average of delay is 13,21094237 and with ip multipath, average of delay is 10,2 ms.

**Keyword : IP Multipath, IPTV**