ABSTRACT

Internet Protocol Television (IPTV) is a system that provides a broadcasting and on-demand service with high performance and gurantee QoS. Multimedia contents like data, voice, and video should be accommodated properly to subscribers through IP based wired or wireless network.

RSVP (Resource Reservation Protocol) is a network and transport protocol that provides bandwidth resources to keep the QoS gurantee. IP multicast allows us to have an efficiency bandwidth that can accommodate multiple registered client simultaneously.

After implementing dan testing on a lab scale, we got a stable value of delay, it was around 22.3 ms, although we gave an increasing value of background traffic. The same thing happened with throughput and pasket loss value which is stable on 1.99 Mbps of throughput and 0 % of packet loss. The value of bitrate also tends to stable at 2.77 Mbps rate, although the number of client that access the IPTV service is increasing from one to three numbers of client. Only the value of jitter that tends to have unstable value.