

## ABSTRACT

IP Multimedia Subsystem (IMS) is an network telecommunication architecture base on IP Multimedia. This technology represent one of architercture that developing with made interconnection between wireless and wireline techology by offering various service multimedia covering voice, video, iptv, dan data. Technology priciple is arranging session of arising out to every service.

IPTV (Internet Protocol Television) is Technology that representing convergence between broadcasting and telecommunication service through QoS controlled. Multimedia content such as video , audio and data earn delivered to client through communication system base on internet whether by wired or wireless media.

In this final task designed and analyzed of internet protocol television (IPTV) service on IP Multimedia Subsystem with wireless access LAN. From this implementation then analyze from Quality of Service (QoS) aspect with delay, packet loss, throughput and MOS parameters. The analysis doing based on result of the test television transmission from server to client with some variant bit rate, distance and background traffic. In this final task, also test the performance of server with looking CPU Utilization.

From the result of test and analysis got the maximum inter arrival time delay 29.8989 ms for measurement with bit rate 256 kbps, background traffic 35 Mbps, and distance 80m. maximum value packet loss 3.54 % for measurement with bit rate 1024 kbps, background traffic 35 Mbps. The result still far from maximum that standard by ITU-T and Cisco. In conclusion the system could work with good performance.

**Keyword** : *IMS, Internet Protocol Television, Codec, wireline, internet protocol, LAN, and QoS.*