ABSTRACT

Next Generation Network technology introducing some development alternative for optimization and efficiently in using telecommunication network. IP Multimedia Subsystem (IMS) is the one technology which growth with interconnection wireless and wireline technology with apply any voice service and data service by principle with set session for any different service.

In this final task, done performance analysis for communication VoIP and data on IMS with user core network WLAN to analysis characteristic some QoS parameters. The parameters is throughput, packet loss, delay, jitter, call setup and traffic sent with MPLS and OSPF algorithm, and diffserv with PQ and WFQ.

The result from this algorithm that's MPLS algorithm give best performance which significant look from delay, jitter, and packet loss. MPLS algorithm have performance more better than OSPF algorithm. In the other hand, comparison diffserv PQ and WFQ which implemented on IMS network, obtained result that's PQ is good for real time traffic such as VoIP with high priority. WFQ give good performance for data application with bandwidth sharing on the network

Key Word : IP Multimedia Subsystem (IMS), Voice over IP (VoIP), Wireless LAN, Quality of Service (QoS), MPLS, OSPF, Diffserv , PQ, WFQ