ABSTRACT

Technology development Next Generation Network (NGN) offer and optimize the various alternatives that exist with the introduction of IP Multimedia Subsystem (IMS). IP Multimedia Subsystem (IMS) is a telecommunications network architecture based on multimedia IP (Internet Protocol). IMS offers a variety of multimedia services including voice, video, Internet protocol and data. The basic principle of IMS technology is set session that appears for each service. In principle IMS network integrating various multimedia services as well. IMS network supports a broad range of coverage based on IP over packet and circuit switched network.

In this final project will simulate about communication in Voice over IP (VoIP) and her special video video streaming IMS-based architecture for network WireLAN and Wireless LAN with SFQ and WRR algorithms using network simulator 2. The parameter in the analysis in this simulation is the delay, packet loss, jitter and throughput.

From the simulation results in the gain by using WRR results in can be better than SFQ for the first scenario (the influence of user speed) with speed 5 m / s value of delay in the can for VoIP services for the WRR of 87.2 ms and 109 ms for SFQ while for service Video of 87.5 for the WRR and 109 ms for the SFQ. Value of jitter for VoIP services in the can by using the WRR of 16.5 ms and 16.8 ms for SFQ while for video services by 5.82 ms for WRR and 5.83 for the SFQ. Value packet loss for VoIP services in the can by using the WRR SFQ as 1.7% and 5.1%, while for video services by using WRR in the can by 1.17% and 3.13% for SFQ. Value paketloss for VoIP services in the can at 30.4 Kbps to 29.3 Kbps with WRR and SFQ. For video services in the can at 485 Kbps to 476.3 Kbps with WRR and SFQ. For the second scenario (the addition of background traffic) in time to the maximum value in the given background traffic by 80% of the capacity of existing links. In this condition on to the value of delay, jitter, throughput and paketloss that are not in accordance with standard QOS for real-time communication.

Keywords : IMS, SFQ, WRR, WireLAN, WirelessLAN