

**ABSTRACT**

Today Wireless LAN give efficiency and data rate according to requirement of multimedia application. Specially video streaming which have more interest cause can be used for education, sport, entertainment or another industry need. And have been supported with multicast address that able to minimize bandwidth traffic in the network and able to increase quality of multimedia application.

However, one of weekness on W-LAN is degradation network performance if occured accretion user progressively. Also factor of different service class between institution, company, dan home user make different satisfaction level too for receive this application. Hence with enable multicast on router, WLAN performance still stable for multimedia traffic transmission, like video streaming, though a lot of user that request this application.

For actualize that thing, the system model for this final project used some device i.e. one router, AP, and hub. Also 11 host consist of one server streaming, 8 client act as user that requesting application, and 2 client used for burden another traffic to the network. Then continued to the observation system with capturing packet to take data like client throughput, delay and jitter, also value of packet loss ratio to all scheme of observation.

Conclusion of this final project is use multicast WLAN performance if transmitted number of equal packet then network still offering good performance. This things appeared from increasing amount of user that concurrent play this application graphic, the curve is sloping down for throughput and sloping up for packet loss ratio, delay, and jitter in all service class and also in all traffic load condition.

Keyword : video streaming, WLAN, multicast, user