

ABSTRACT

The development of wireless technology is currently based on progress requirement for mobility of subscriber services, including triple play services which is a bundle of voice, video, and data. This mobile is required to provide communication services that can be done anytime, and even in a state that is being moved, so that even during handover can still enjoy a good quality service. This is why the emergence of Mobile IPv6 technology is show up, which can serve through by mobile users to move and communicate from one area to another with a good performance of communication links. The problem occurs when the Mobile IP handover process. Handover process in Mobile IPv6 requires a long time so this has not been able to fulfill the requirement of triple play services.

The methods of FMIPv6 (Fast Handover for Mobile IPv6) become the right solutions to solve the problems of handovers in Mobile IPv6 in order to the time required during the handover process is faster. This final project discusses the implementation of Fast Handover Mobile IPv6 (FMIPv6) method.

In this final project has been designed a network FMIPv6 with applications that has a service such as voice, video and data. The Parameters observed in FMIPv6 and HMIPv6 is handover delay, and the Quality of Service (QoS) of triple play services. From the data, FMIPv6 handover delay obtained when the background traffic 0 is 88 ms, while the handover HMIPv6 1 second delay when the background traffic 0. Video and voice services still fulfill the delay standard of ITU-T, while data services obtained at 20 Mbps Throughput, 0.01865% packet loss for the background traffic 0.

Keywords: FMIPv6, HMIPv6, handovers, QoS, Triple Play