

## ABSTRACT

Proxy Mobile IPv6 (PMIPv6) is a network-based mobility management protocol in the local domain. PMIPv6 is also called the local mobility protocol. PMIPv6 is developed to overcome the problem of signaling overhead in Mobile IPv6 protocol because it eliminates the tunneling process between host and network on the wireless link and negate the signaling process on the host.

In this final project has implemented a PMIPv6 network consists of Local Mobility Anchor (LMA), Media Access Gateway (MAG), the Mobile Node (MN) and Correspondent Node (CN). Streaming video services is passed in the network to see the performance of PMIPv6 protocol.

From the results of the implementation show that the PMIPv6 handover delay value is still quite large at 3.328 s - 3.402 s away from the standard ITU-T recommended delay <150 ms for real time application services. The jitter value is 27.171 ms - 28,160 ms when handover and when there is no handover is 27.242 ms - 27.366 ms which meets ITU-T standart for jitter < 40 ms and cisco standart for jitter <30 ms. Value of packet loss in the handover condition is 5.8% - 7.2% which still meets the ITU-T standard that packet loss <20%.

Keywords: Proxy Mobile IPv6, Mobile IP, Mobile IPv6, and Video Streaming.