

Abstract

Innovation in wireless technologies is changing the way users to connect the internet. It is now possible to communicate while on the move. This thing has motivated the mobile IP technology came up to fulfill what the user needed. The Mobile IPv6 is the enhancement from network application technology that operate at the required quality of service in the wire or wireless network. Handover latency of MIPv6 is the main cause of packet loss and throughput degradation.

In the growth and development of MIPv6 the the Fast Handover for Mobile IPv6 that known as FMIPv6 came up. Fast Handovers for Mobile IPv6 (FMIPv6) protocol is to allow a MN to configure a new CoA, *before* it moves and connects to a new network. It also allows the MN to use the new CoA immediately upon connecting to the new network. Furthermore, the FMIPv6 protocol seeks to eliminate the latency involved during the MN's BU procedure by providing a bi-directional tunnel between the old and new networks while the BU procedures are being performed..

In this final project, I try to implement MIPv6 network first and then FMIPv6 at the same computer and topology. In the testbed we can see that the handoff latency in MIPv6 reduced by FMIPv6 that caused by some reasons that I have mentioned above. The *QoS* values that shown in chapter four perform that FMIPv6 has a better values against MIPv6 protocol.

Keyword : Fast handover, Mobile IP, Wireless LAN.