

Abstract

Mobile IP is an Internet protocol that supports mobility of hosts, so that each host move and change its access point does not need to change the IP, but the problem is the handover latency and packet loss due to handover process. In Mobile IP there are two kinds of approaches to the handling of mobility, which is host-based and network-based mobility. In host-based mobile node involvement is needed for communication with the home agent via the network nodes. As with the network-based, mobile nodes are not involved in the process of communication with the home agent, sufficient network nodes are tasked to set it. Network conditions that exist at this time there is some coverage of network environments such as WLAN, WiMAX, 3G, LTE. Standard IEEE 802.21 Media Independent Handover Function had been published for arrangements in vertical handover.

In this final simulation conducted to determine the effect of handover on the performance of Proxy Mobile IPv6 with Hierarchical Mobile IPv6 using MIH 802.21 at 802.11 and 802.16 network environment. The parameters analyzed were handover latency, packet loss, throughput, and delay. In the local domain, Proxy Mobile IP has a 20% better value for handover latency, packet loss, throughput compared to Hierarchical Mobile IP.

keyword: Mobile IPv6, Fast handover, PMIPv6, HMIPv6, mobility management, heterogeneous network, MIH