Abstract

MIPv6 is the standard protocol for mobility management on IPv6 networks. Integrating MIPv6 on MPLS network intend to provide MPLS connection-oriented network service to support MIPv6 protocol as extended features on its conventional mobility procedure. Specifically, MIPv6 has a signaling mobility performance problem in correspondent registration phase which there is signaling overhead/high signaling load that incurred on transmission process of periodic BU message. In order to overcome this inefficiency problem, Xcast6 technique have been proposed to be implemented as carrier of signaling messages, especially to handle BU message transmission to multiple correspondent nodes. Thus, transmission mechanism of signaling mobility with Xcast6 that already implemented on standard MIPv6 would pass through the scheme of MIPv6 integrated on MPLS at backbone network.

On this final project, it focus on analyzing signaling performance of MIPv6 integrated on MPLS network which using Xcast6 protocol as mechanism to carry its mobility message. Generally, analysis result toward experiment's data from scenario model simulation concludes that the implementation of Xcast6 mechanism can gives better signaling performance to MIPv6 protocol.

Keywords **: Xcast6, MIPv6, MPLS network, signaling mobility**