Abstract

MPLS is an advance application from data forwarding technique that allows using label in data forwarding decision. MPLS mechanism isn't using decision like data forwarding in traditional IP technique that refers to complex routing table. IPv6 is a solution for providing IP address in huge amount that enable equipment in large quantity connecting to internet immediately. Considering there are many IPv4 routers which connect each other to big internet network, it's reasonable for applying IPv6 address. IPv6 implementation is supported by MPLS where the package data transfer aren't based on basic address IP structure.

For knowing performance from a big scale network such as IPv6, the Quality of Service treatment should be given in every node which is passed by package. In IPv6 addressing, there will be so many services can be handled by MPLS in data forwarding. This technique needs equipment which can support MPLS and IPv6 all at once.

This final project will emphasize the network simulation appllication which can represent video call using MPLS and IPv6 network that (hopefully) can guarantee the QoS and analyze about QoS parameter from application simulation result, which it is video call. Simulation results shows that video call performances are matched with ITU.T G.114 standards, caused by MPLS forwarding packet that minimize overhead time in router

Keywords: *MPLS, IPv6, QoS, Video Call*