The Impact of Queueing Model on the MPLS Networks

王俊杰、戴江淮

E-mail: 9607724@mail.dyu.edu.tw

ABSTRACT

Increase constantly along with internet information discharge, the bandwidth resource of network becomes more and more critical, and often cause the traffic jam phenomenon of data and make the customer can not get a substantial guarantee on network. MPLS is the new network standard technique that put forth by the IETF, its purpose to increase the speed to exchange packets, expand the network size, and provide different data service on network, make packets switching become more efficiently, and reach quality of service.NS2 is used for evaluate the performance of network which is discussed in this paper. To establish two label switching path in the MPLS network. They are Node 0 to Node 13 and Node 0 to Node 14 traffic flows, in three environment of opening Node 0 to Node 13 traffic flow, or opening Node 0 to Node 14 traffic flow, or opening two traffic flows by giving different of packet-size, bandwidth, data rate, buffer, and RED parameters to get throughput, delay, and drop for observing these parameters having what kind of influence with forwarding the packets on the MPLS network. Otherwise, specify that packets pass through the number of nodes (or routers) to observe the influence in delay when forwarding packets in MPLS network.

Keywords : MPLS、LDP、TE、QoS

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