

Abstract

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QoS Provisioning in Optical Burst Switching with Variable Offset Time and Active Policy

In optical burst switching (OBS) networks, one way reservation is usually used for transmitting data burst. The chance of bursts to collide with each other increase leading to degrade the performance of the optical network. In this paper, a new scheme is reported in order to improve the performance of the OBS networks. This is performed by enhancing the techniques used to improve quality of service (QoS) in these networks. A combination of variable offset time scheme in edge router and active policy in core router is used to decrease the contention of bursts. Simulation is carried out using several parameters. The obtained results assure that bursts of high priority traffic has a significantly lower loss () compared to that of bursts of low priority traffic. Also, as compared with a standard contention resolution scheme like fiber delay line (FDL), it gives a better loss rate that is enhanced by ~ 30%.