Non-uniform traffic performance of multi-class scheduling technique with dual threshold.

ABSTRACT

Network with many types of traffic such as video conferencing, audio and data transfer requires a specific Quality of Services (QoS)to maintain their performance. It is crucial for the switch designer to guarantee QoS for all applications. In this paper,a new way of handling multi -class traffic has been presented. The analysis is done on 16x16 switch with two priority traffic classes and dual threshold setting.Dual threshold setting is implemented on the 16x16 switch to ensure a better control on the priority setting for both classes.In the reality, switch application operates under non-uniform traffic condition.Thus,the analysis in this paper is done under two different kind of non-uniform traffic patterns which are known as the hot-spot pattern and Community-of-Interest (COI) pattern. The roposed method is simulated to show that the delay performance of the non-uniform traffic patterns for the proposed switch architecture has been improved.

Keyword: QoS; Multi-class; Non-uniform traffic; Scheduling technique.