ABSTRACT

To provide frame relay over ATM backbone, frames to cells conversion makes the cell generation process for FR VC's very busy. Thus, in order to achieve high bandwidth utilization, fair allocation of bandwidth resources and guaranteed QoS, traffic shaping after frames to cells conversion is suggested.

This research focuses on the issue of traffic shaping for frame relay over ATM platform. We evaluate the performance of shaping when various size of shaper is used. We also study the criteria for selecting a cell from shapers. And the conclusions are: 1) if the buffer size is large, the number of shaper does not affect the performance of traffic shaping. 2) the performance of shaping between using one large shaper and parallel small shapers with the same total size is somewhat not different. 3) if the buffer size is large enough, the performance of shaping is somewhat independent of scheduler and 4) also the traffic, if the traffic is not busy, the criteria of scheduler does not affect the performance of traffic shaping.

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