Traffic and Congestion Control in ATM Networks Using Neuro-Fuzzy Approach

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Abstract

In this paper, a neuro-fuzzy based Call Admission Control (CAC) algorithm for ATM networks has been simulated. The algorithm presented employs neuro-fuzzy approach to calculate the bandwidth require to support multimedia traffic with QoS requirements. The neuro-fuzzy based CAC calculates bandwidth required per call using measurements of the traffic via its count-process, instead of relying on simple parameters such as the peak, average bit rate and burst length. Furthermore, to enhance the statistical multiplexing gain, the controller calculates the gain obtained from multiplexing multiple streams of traffic supported on separate virtual (i.e, class multiplexing).

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References


Index Terms

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