ATM switch performance modeling with dynamic bandwidth allocation

ABSTRACT

One new technology that can be used to integrate various types of networking services today is ATM (Asynchronous Transfer Mode) where these services demand different QoS (Quality of Service). Allocating and scheduling the bandwidth for efficient utilisation of this valuable network resource is a critical issue. Dynamic Bandwidth Allocation is a promising scheme for this efficient utilisation. This study models an ATM switch using VBR traffic sources and tests its performance for three dynamic bandwidth allocation strategies. The traffic sources are modeled using the ON-OFF traffic source model.

Keyword: ATM; ON/OFF source model; VBR traffic; Bandwidth allocation