

ATM switch performance with dynamic bandwidth allocation

ABSTRACT

A model is proposed for ATM switch to study its performance with dynamic bandwidth allocation. The proposed scheme allocates bandwidth dynamically, proportional to expected queue length and the threshold value associated with it. The scheme is then compared with the results of Lu and Hansson's research, where static bandwidth allocation and bandwidth allocated proportional to expected queue length are analyzed. The proposed scheme performs better under certain operating conditions when the threshold value is optimum.

Keyword: ATM; Bandwidth allocation; Modeling; Simulation; Dynamic time slice; Delay; Queue length