

Calculation of predicted average packet delay and its application for flow control in data network

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Abstract

The evaluation of performance parameters of modern data transfer networks is a crucial matter to arrange flow route selection and flow control. In this paper formulae which allow to calculate the average cost of increment of predicted total packet delay caused by accepting a certain packet coming to the data communication system have been derived. Moreover using the obtained results some algorithms for input flow control have been suggested.

Keywords : Data networks, packet delay, average cost.

1. Introduction

Modern data transfer networks (DTN) must comply with rather stringent requirements regulating the parameters of packets delay which is directly related to control efficiency and flexibility. The development of DTN resource management methods including routing and flow volumes control methods are particularly important for successful DTN operation.

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