Comparison of Buffering in Manhattan Street Network in NS2

Team

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Introduction

Improvement of performance at the destination node by applying different types of buffer at the routers is demonstrated. The results using NS2 simulator are produced. It can be concluded that the congestion and the packet drops can be reduced at the link node by appropriate selection of buffer type at the link node.

ROUTING ALGORITHM

In case there are more than two paths from source to the destination. The selected path represents the outgoing link in a multohop network. The cost for each path is calculated using routing algorithm between source and destination nodes or routers. This depends upon the metric supported by different type of buffers. The cost may be defined in terms of number of hops or may be bandwidth, delay or links etc. Many different cost metrics can be used to judge the shortest path, like number of links, distance in terms of hops, delay, bandwidth (bit-rates) .

MULTIPATH ROUTING ALGORITHM

In core networks where there is a huge amount of data transactions and there are more than one equal cost route possible from a source node to destination node with large volume of traffic, the multipath routing algorithm may be used, which helps in improving the available resources utilization and helps in reducing congestion and packet drops and thus helps in shaping the traffic between equal cost multi paths.

IMPLEMENTATION