NETWORKS LAB

Abstract

Comparison of Buffering in Manhattan Street Network in NS2

The selection of appropriate buffer is very important. It helps in balancing the load across the multipath networks like Manhattan Street Network (MSN). Application of multipath routing instead of single path routing is preferred. Manhattan Street network (MSN) topology is used for this purpose. In this approach traffic moves form two input links to two output links having equal bandwidth paths at the routers.

A cell is routed to a buffer upon arrival. The cell has to be deflected on the other and cannot be accommodated at a later stage even if the buffer allows admission to new arrivals at that stage. In this paper, attempt has been made make provision for reducing congestion and packet drops. Different type of buffers is provided at each node allowing each input and output nodes to have separate queues to reduce the deflections and as a result the delays in different simulation runs. Further, the buffering structure is so designed that the storage of cells in buffer slots takes place regardless of their destinations. Deflection occurs only when all the buffer slots are full. In today's internet the routing algorithms play very important role. The link-state (OSPF) and distance vector routing (RIP) algorithms are few to mention. In large network topologies like Manhattan Street Network which involves large volume of data transaction. The comparison by simulation has proved that the link state routing is better than distance vector routing.

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