A Reconfiguration Strategy for Improving the Performance of Local Network that Utilize CSMA Protocol

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Abstract

In this paper, an advanced technique to improve the performance of Local Area Network (LAN) that uses CSMA protocol as an access technique was presented. The used LAN is flood network based on a meshed topology with only point to point links, so as to accommodate various types of data channels such as optical links. A key feature of the system is the use of very simple nodes for the routing of data packet as well as using different types of retransmission strategies for handling network collisions. Efficiency of the proposed configuration was checked by simulation runs and has been found that it performs better than the traditional topologies.