RELIABLE & ROBUST MULTIHOP COMMUNICATION IN DELAY TOLERANT NETWORK

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ABSTRACT

Delay/Disruption Tolerant Network is designed for intermittently connected network where network partitions are frequent and very high delays are associated with some links. Due to lack of consistent connectivity, DTN routing usually follows store-carry-and-forward; i.e., after receiving some packets, a node carries them around until it contacts another node and then forwards the packets. Routing is one of the major issues affecting the overall performance of DTN networks in terms of resource consumption and data delivery. This research aims to improve the routing scheme of the existing system [1] in terms of high data delivery and reduce overhead or delay by using network coding concept. Path for transmission is found using DIF & PIF algorithm and then packets to be delivered are encoded at the node and finally when the encoded packets reach the destination are decoded at the destination to fetch the original packets. Through simulation it is shown that the proposed network coded DIF & PIF improves the performance of existing algorithm [1] making the network more reliable & robust.