Abstract

In Disruption Tolerant Networks, packet forwarding scheme has a major drawback in terms of network congestion. In order to solve this problem, a New Adaptive Routing Proposal (NARP) has been proposed. NARP uses the message forwarding probability scheme in order to increase the delivery ratio and bandwidth utilization. Also, NARP arranges the dropping sequence based on their assigned priority. The priority is determined by the average hop count and average latency. Meanwhile, NARP has an ACK list exchange mechanism that is used to purge the redundant messages. Simulation of NARP was carried out and its performance was compared to well known DTN routing protocols: Epidemic Routing, and Spray and Wait Routing. Simulation results show that NARP outperforms them in terms of packet delivery ratio, average latency, and overhead ratio.

References


**Index Terms**

Computer Science

Networks
Keywords

DTN routing  New routing mechanism  adaptive forwarding policy  packet dropping policy.