عنوان مقاله:

Overhead Reduction In Delay Tolerant Networks

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خلاصه مقاله:

Delay tolerant networks (DTN) are sparse wireless networks with intermittent connections due to limited energy, node mobility, propagation and etc. There are various real applications for DTNs such as wildlife tracking, military environment, deep space searching and etc. Traditional routing protocols fail in these networks due to intermittency. DTN protocols are based on store-carry-forward mechanism (SCF). In most of proposed methods, nodes replicate messages and give copies to nodes they encounter. This causes waste of network resources. In proposed algorithm, which is called nearest neighbor visit, for each message, source node has to find the connected neighbor which has the minimum geographic distance to destination. Next hop has to find neighbors which have recently met destination. Comparing NNV to ER and PROPHET, overhead has reduced on average by ۸۵% compared to ER and ۵۰% compared to PROPHET. Also, delivery ratio and delay are maintained in acceptable ranges.

کلمات کلیدی:

Delay tolerant networks, DTN, message delivery delay, message delivery ratio, overhead

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