

ROBUSTNESS OF PROBABILISTIC AND SOCIAL GROUPING PROTOCOLS IN PRESENCE OF SELFISH NODES IN DELAY TOLERANT NETWORKS

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ABSTRACT

Delay tolerant wireless networks (DTNs) represent a class of networks where continuous end to end connectivity is not be possible. The research in DTN is more challenging than conventional mobile ad hoc networks due to its unique characteristics like frequent connectivity, fragmentation, opportunistic routing as well as limited computational and storage capability. DTNs comprised of nodes that cooperate to forward messages despite connectivity issues. However some nodes showed their unwillingness to contribute to network. These misbehaving nodes prefer not to forward packets or to drop the packets received. These selfish and misbehaving nodes consume network resources and reduce the performance and availability of network. This paper will study the behavior and their impact on network performance of Probabilistic and social grouping protocol in presence of selfish nodes.

KEYWORDS: Delay Tolerant Networks, Selfish Node, Malicious Node, Message Delivery