ROUTING IN INTERMITTENTLY CONNECTED MOBILE AD HOC NETWORKS: A SURVEY

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Abstract

A Mobile Ad Hoc Network (MANET) is a collection of mobile nodes that can communicate with each other using multihop wireless links without utilizing any fixed based-station infrastructure and centralized management. Each node in the network acts as both a host and a router, and changes of network topology are distributed among the nodes. When communicating nodes are in motion, links can be obstructed by intervening bodies. These links are susceptible to frequent failures, which can cause intermittent connectivity. This will create partitions in the network. Most of the traditional routing protocols focus on connected networks where an end-to-end path exists between any two nodes in the network. In highly mobile or sparse networks, where partitions are not exceptional events, these routing algorithms will fail to deliver packets because no route is found to reach their destinations. To overcome partitions in intermittently connected network, number of protocols is developed. This survey presents a state-of-the-art review of some routing protocols that specifically designed for sending messages in an intermittently connected ad hoc network. This work also tries to reveal the characteristics and trade-offs.