Stability Enhanced AOMDV Protocol for MANETs

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Abstract

A Mobile Ad hoc network is set of mobile devices, which communicates without any infrastructure. The topology for such networks is not static because it contains mobile nodes. It also some other limitations like dynamic topology limited and shared bandwidth and limited battery power. Design of a mobile ad hoc network is challenging task, due to such limitations. In such dynamic networks routing is a tough task. Constant movement of nodes increases the possibility of a route failure. Route discovery procedure has to be started to find a new route in case of route failure. As number of route discoveries increases there is an increase in the routing overhead and delay. The existing AOMDV protocol has provision of multiple routes. The route in existing AOMDV is found on minimum hop basis without considering strength of a link. Received signal strength can be used as a metric to find more stable routes. Provision of stable route may increase performance of the network. In this paper performance of stability enhanced AOMDV which considers received signal strength in order to find a route and existing AOMDV protocol are compared.
References


Index Terms

Computer Science Networks
Keywords

MANET, Routing, Stability, Cross-Layer, Received signal strength, AOMDV.