Abstract

Routing packets in mobile ad hoc networks has been considered to a great extent, even though the hypothesis on full connectivity is generally not valid in a real time system which means that a practical routing protocol ought to handle intermittent connectivity and the absence of end-to-end connections. In this paper, we propose a location aware routing mechanism called adaptive position based routing protocol for mobile ad hoc networks, which is enhanced with a positioning service which well suits real time mobile ad hoc networks. In order to achieve low overhead, APBRRP uses a beaconless strategy combined with a position-based resolution during forwarding packets. Also the proposed protocol is combined with a local database holding mechanism which is updated using route overhearing. The proposed routing protocol APBRRP is compared with the reactive AODV routing protocol by performance metrics delay, overhead and delivery ratio. By the extensive simulation results using NS2 the results proved that our proposed APBRRP outperforms AODV.

References


Index Terms
Keywords
APBRRP  Mobile Ad Hoc Networks