

On-demand Routing Protocol, which utilizes Greedy Methods with Backtracking Technique For Route Request Propagation during path establishment in Mobile Ad-Hoc Network (MANETs)

Pretty Goel,

Research Scholar, Deptt. of Computer Sc., O.P.J.S. University, Churu (Raj.)

ABSTRACT

Mobile ad hoc networks are described by multi-hop wireless cell nodes that transfer data with each other without unified control or set up. Routing protocols for a Mobile Ad-hoc system can be named as proactive (table-driven) and reactive (on-demand), contingent upon how they respond to topology changes. For MANET, On-demand routing protocols have been considerably studied. Generally, An on-demand routing protocol just tries to find/maintain routes when needed throughout the whole system, which isn't an adaptable approach. A routing protocol are required to address 3 issues in MANET: The route maintenance, the data forwarding and the route finding. On the other way, Geographic routing has become one of the greatest routing schemes in MANET mostly due to its adaptability. It isn't build up route a priori but route information packets in a greedy manner towards the destination. The standard approach in geographic routing is greedy forwarding, which flops if the packet encounters a void node (a node that has no neighbor that is nearer to the destination than itself), it is routed nearby the void using several techniques such as creating a planarized network chart and then using other hand rule to route around the void. In this paper, we proposed an on-demand routing protocol which utilizes greedy method for route request propagation during route creation. At the point when route request encounters a void, it simply utilize backtracking technique to forward the route request around the void without needful the development of planarized network chart to round nearby the void. Our protocol performance are better as compare with the popular routing protocol AODV which has over 20000 citations. The Simulation outcomes display that proposed protocol has a lower control overhead, less hop count and higher packet-delivery ratio on average than AODV.

keywords: manet, routing in manets, geographic routing, topology routing, hybrid routing