

Load Balancing Routing Algorithm among Multiple Gateways in MANET with Internet Connectivity

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Abstract—When MANET is connected into the Internet, the gateways are the entry points of all traffic between the hybrid networks. Usually, a large amount of traffic load may become concentrated in some gateways and congestion occurs. To resolve this problem, this paper proposes a load balancing routing algorithm, called LBRA, in MANET to distribute the traffic load among multiple gateways. Through simulation, we show that the proposed algorithm can distribute the traffic load uniformly among multiple gateways and suppress the increase in the routing path length at most 20% compared to the shortest path routing.

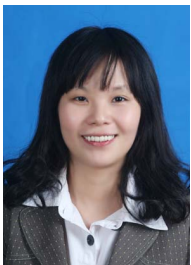
Keyword—Load balancing; multiple gateways; routing; MANET; Internet connectivity



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