Abstract

The integration of the internet and ad hoc mobile host can be used to eliminate dead zones in the wireless network, and can also be used to extend the coverage of wireless networks. This paper utilizes extended Ad hoc On Demand Distance Vector (AODV) for interconnection of MANET with Internet. An approach is presented to reduce the search cost; such as route discovery delay (RDD) and routing overhead (RO) based on modification in TTL value for network wide search. Moreover, this paper not only simulates and compares the existing and proposed approach for optimization in search cost but also derive search strategies (i.e. sequence of TTL values). We used a dynamic programming formulation with which optimal search strategies can be derived that minimizes the expected search cost associated with packet transmissions. Thus, the mathematical formulation justified the simulation results.

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