Abstract

In Mobile Ad hoc Networks (MANETs), dynamically changing network topology affects the performance of various on-demand routing protocols significantly. Ad-hoc On-Demand Distance Vector (AODV), one of the most widely studied on-demand routing protocol uses single route reply packet along the reverse path for replying to the source node in the route discovery process. Due to increase in the instability of the network topology, the likelihood of route reply packet loss increases, that in turn degrades the performance of the routing protocol. So an optimized AODV, namely Reverse AODV (R-AODV) was proposed that introduces multiple recent and shorter routes at the source node by the use of reverse route request mechanism. In this paper, a detailed implementation process and the simulation study of R-AODV has been presented based on NS-2 that improves the performance of AODV significantly in terms of packet delivery fraction, communication delay and energy consumption.

References

- Elizabeth M. Royer and Chai-Keong Toh, "A Review of Current Routing Protocols..."
A Comparative Analysis of AODV and R-AODV Routing Protocols in MANETS


- &quot;The Network Simulator – NS-2,&quot; available at http://www.isi.edu/nsnam/ns, 2004

**Index Terms**

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