An Implementation of Black hole Detection and Prevention Method using AODV Routing Protocol in MANET Environment

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Abstract

Network security is a pathetic link in wired and wireless network systems. A mobile ad hoc network (MANET) is a compilation of self-sufficient nodes that converse with every further by forming a multi-hop radio network and maintaining associations in a decentralized manner. Security remains a main challenge for these networks owing to their features of open medium, animatedly changing topologies, confidence on accommodating algorithms, absence of federal monitoring points, and lack of clear lines of protection. Mainly of the routing protocols for MANETs are therefore susceptible to dissimilar kind of attacks. Ad hoc on-demand detachment vector routing (AODV) is a much admired routing algorithm. Though, it is susceptible to the recognized black hole attack, where a malevolent node incorrectly advertises good pathway to a purpose node throughout the route discovery process. This attack becomes additional sever while a group of malevolent nodes assist every other. In this paper, a security mechanism is offered against a corresponding attack by multiple black hole nodes in a MANET. The reproduction approved out on the proposed scheme has produced results that establish the efficiency of the mechanism in discovery of the attack as maintaining Constant Network
Performance.

References

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Index Terms

Computer Science  Networks

Keywords

AODV, Black-hole, NS2, MANET, Routing Protocol