Performance Improvement by Identification and Elimination of Gray Hole Nodes in MANETs

Abstract

Mobile Ad-hoc Networks (MANETs) are widely used in various applications due to its ability to communicate without any fixed infrastructure like in military and civilian applications. MANETs are wireless infrastructure-less (Ad-hoc) network comprising of mobile nodes. Mobile nodes can enter and leave the network at any time. Due to its inherent characteristics like dynamic topology, autonomous nodes and self organizing ability these networks are vulnerable to various security attacks. MANETs are still an emerging technology in wireless communication. Security is very important in this modern era especially in MANETs. Without any security, nodes may selectively drop packets without forwarding them. This type of security issue is known as Gray Hole attack. In this paper a novel scheme is proposed for identification and elimination of Gray Hole attack. This technique uses a redefined modified extended data routing information (RM-EDRI) table that is maintained by every node on the network.

References
Performance Improvement by Identification and Elimination of Gray Hole Nodes in MANETs


Index Terms

Computer Science Wireless
Keywords

MANETs, AODV Protocol, Gray Hole attack, RM-EDRI table