Abstract

Security[16] is an essential feature for wired and wireless network[1]. But due to its unique characteristics of MANETs[10], it creates a number of consequential security challenges to network. MANETs are vulnerable to various attacks[2], blackhole[12] is one of the possible attack. In this paper, we represent an intrusion detection[5] system for MANETs against blackhole attack using fuzzy logic[4]. Our system successfully detects the blackhole in the network and this information is passed to other nodes also. We also provide a detailed performance evaluation based on various network parameters. Our results show that the proposed system not only detects the blackhole[12] node, but improves the performance of AODV under the blackhole attack.

Reference
Fuzzy Logic Based Intrusion Detection System against Blackhole Attack on AODV in MANET

Bing Wu, Jianmin Chen, Jie Wu, Mihaela Cardei,” A Survey of Attacks and Countermeasures in Mobile Ad Hoc Networks “Department of Computer Science and Engineering, Florida Atlantic University
Fuzzy Logic with Engineering Applications by Timothy J. Ross Mcgraw Hill, Inc.
Y. Zhang, W. Lee,(August,2000) “Intrusion Detection on Wireless Ad hoc Networks”, in

Index Terms

Computer Science  Security

Key words  MANET  AODV

Blackhole Attack

Fuzzy Logic