Intrusion Response System in AODV for MANET

Abstract

The mobile adhoc network (MANET) requires effective intrusion response system. In this paper, we present an intrusion response system that supports the infrastructureless nature of MANETs. We propose a NHELLO and Link Layer based solution towards excluding malicious node which is robust against address spoofing from the attacker. In particular, we investigate how power adaption can be used to keep a malicious node away from normal node’s transmission range. Important issue in this strategy is to select optimal transmission power so that malicious node goes out of operating zone of network, as well as node adapting power itself remains in the operating zone. We also provide a detailed performance evaluation based on various network parameters i.e. a series of simulation studies. Our results show that the proposed concept significantly improves the overall security of mobile ad hoc network without having geographical information of nodes.
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Reference

- I. Siomina and D. Yuan, “Maximizing Lifetime of Broadcasting in Ad Hoc Networks by Distributed Transmission Power Adjustment,” in Proc. of ICTON, 2006

Index Terms

Computer Science Wireless

Key words

Blackhole Attack IRS IDS

Power adaption