Abstract

In recent years, the security issues on MANET have become one of the primary concerns. MANETs rely on the cooperation of the nodes participating in the network to forward packets for each other. Therefore, MANET routing protocols are more vulnerable than routing protocols in wired networks. Because of unique features of MANETs, existing security mechanisms,
especially Intrusion Detection Systems (IDSs) like authentication and encryption that proposed for wired networks are not suitable for this type of networks. Hence, in this paper, we have proposed a new IDS architecture based on agents and clusters. It detects intermediate nodes misbehaving and anomalies in packet forwarding. Simulation results show that our architecture can achieve low false positive and high detection ratio.

Reference


Detection of Routing Anomaly using IDS Architecture based on Agents and Clusters in MANETs


Index Terms

Computer Science

Wireless

Key words

Anomaly Detection Intrusion Detection System (IDS)
misbehaving nodes

Mobile Ad hoc Networks (MANETs)