Abstract

Proactive security mechanism like authentication, confidentiality and non-repudiation are difficult to implement in MANETs. Some additional security necessities are always desirable like co-operation fairness, location confidentiality, data freshness and absence of traffic diversion. Traditional security mechanism (authentication, encryption) provide abstract level of security but
some reactive security mechanism and deep level of inspection is always required. Here local-distributed intrusion detection system for ad hoc networks has proposed. In the proposed distributed-ID, a smart agent in each mobile node analyzes the routing packets and also checks the overall network behavior of MANETs. It works like a Client-Server model using Markov process. The proposed local distributed- IDS shows a balance between false positive and false negative rate.

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Index Terms

Computer Science Wireless

Keywords

MANET Intrusion Detection System (IDS)
security mechanism
proactive
reactive
Markov process
false negative and false positive