Abstract

Power-aware hybrid intrusion detection in wireless ad hoc networks using mobile agents (PHIDS) describes design and implementation of an energy conscious anomaly based cooperative intrusion detection system for wireless ad hoc networks based on mobile agent technology. This paper addresses the above stated issue by (1) Applying mobile agent
technology to minimize network load, conserving bandwidth and to improve reactivity. 
(2) Minimize energy consumption of network monitoring nodes by using power metric node 
selection algorithm. (3) It integrates both host based and network based intrusion detection 
system. IBM’s Aglet is used as the base agent architecture to create mobile agents such as 
monitoring agent, decision-making agent and action agent. Host based intrusion detection 
system take care of local intrusion detection on each node. Network based intrusion detection 
system take care of cooperative intrusion detection at network level.

Reference

- O.Kachirski, R. Guha, “Intrusion detection using mobile agents in wireless ad hoc networks”, Proceedings of the IEEE Workshop on Knowledge Media Networking (KMN’02),

Index Terms

Computer Science
Wireless

Key words
Agent based architecture
intrusion detection
wireless ad-hoc networks