Abstract

Security is one of the major issues in the case of wired and wireless networks. The rapid proliferations in the area of Mobile Adhoc Networks (MANETs) have changed the landscape of network security. MANETs are self organizing, infrastructure less, multi hop networks where the constituent nodes act as both hosts and routers simultaneously. Dynamic topological changes and constantly moving nodes in the network make MANETs more vulnerable to a variety of attacks than traditional networks. In this paper we deal with misbehavior nodes in MANETs that drop packets instead of forwarding them towards the destination. To defend against this attack we propose a novel intrusion detection system (IDS) that is motivated by the human immune system. Recently, IDS techniques that are inspired from the Immune System (IS) of human beings are gaining importance since immune systems are robust, accurate and highly adaptable in detecting any new intrusion. From the results it is shown that the proposed immune AODV provides better performance than the normal AODV in the presence of packet dropping nodes in the network.
An Immune Inspired Approach for Detecting Packet Drop Attacks in MANET


- AISWeb - The Online Home of Artificial Immune Systems (http://www.artificial-immune-systems.org/).


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An Immune Inspired Approach for Detecting Packet Drop Attacks in MANET

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Index Terms

Computer Science  Mobile Networks

Keywords

Security  Mobile Ad Hoc Networks (MANET)  Intrusion detection Systems (IDS)
Artificial Immune Systems (AIS)

Immune system or Natural Immune System