Abstract

Wireless networks are playing a very important role in the present world. Mobile Ad hoc Networks (MANET) are the extension of the wireless networks. These networks are playing a crucial role in each and every field of human life. They are used in those places where a simple wireless network cannot be used. They play a significant role in real-time applications such as military applications, home applications, wireless sensor applications, etc. Due to their adaptive nature, they are threatened by a number of attacks such as Modification, Black Hole attack, Wormhole attack, etc. Wormhole attack is one of the dangerous active attacks in the mobile Ad hoc Networks (MANET). In this paper, a secure and efficient approach for the detection of the wormhole attack in the Mobile Ad Hoc Networks (MANET) is described. The proposed algorithm is implemented on a very popular Adhoc On Demand Distance Vector (AODV) routing protocol. The beauty of this proposed algorithm is that it not only identifies the wormhole attacker node but also confirms it as well. To simulate the effect of the proposed work, the popular NS 2 (Network Simulator 2) is used.
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Journal of Security, Privacy and Trust Management (IJSPTM) Vol 2, No 3, June 2013

Index Terms

Computer Science
Security

Keywords
MANET; AODV; RREP; RREQ; Wormhole