An Approach to Detect Wormhole Attack in AODV based MANET

Abstract

Wireless networks are playing very important role in the present world. Mobile Ad hoc Networks (MANET) are the extension of the wireless networks. These networks are playing crucial role in the each and every field of the human life. They are used in those places where a simple wireless network cannot use. They play a significant role in real tile applications such as military applications, home applications wireless sensor applications etc. Due to their adaptive nature they are threatened by 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 on Adhoc On Demand Distance Vector known as AODV routing protocol. The beauty of this proposed algorithm is that it not only identifies the wormhole attacker node but also confirm it as well. To simulate the effect of the proposed work the popular NS 2(Network Simulator 2) is used.

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