Abstract

The security is one of the major issues in Mobile Ad hoc Network (MANET). Each node in the Ad hoc network has worked as a router to take part in route establishment and data delivery in between sender and destination, thus highly cooperative nodes are required to ensure that the initiated data transmission process does not fail. Wormhole attack is a type of attack that works as to established path in between sender and receiver but if the sender has started data transmission then in that case the wormhole attacker has created a direct link, referred to as a wormhole tunnel between them, it means more of the number of trusted nodes means higher successful data communication process rates may well expected. In this paper we proposed Intrusion detection as well as prevention technique (IPS) against wormhole attack, for detection we use routing entry base detection technique and get attacker node information like node number, number of attack packet, attack time etc. After that we prevent wormhole attack using neighbor trust worthy base technique and secure the mobile ad-hoc network communication. Through our proposal we provide secure as well as reliable communication and simulate through network simulator-2 and analyze the network behavior in attack and prevention case. After that we measure the performance of network on the bases of network parameter like throughput, packet delivery ratio, overall analysis, routing load etc.
References


Index Terms

Computer Science

Wireless

Keywords

MANET routing wormhole IPS ns-2