Abstract

Mobile ad hoc network (MANET) has emerged as a new frontier of technology to provide anywhere, anytime communication. Due to its deployment nature, MANETs are more vulnerable to the black hole attack. A black hole attack is a type of packet dropping attack where the attacker behaves like a normal node at the time of connection establishment and after forwarding false reply of destination to sender drops all the data packets. In this attack, one or more malicious nodes create a secure environment with the presence of other normal nodes. The proposed Intrusion Detection System (IDS) identifies the nodes that are not forwarding the data packets continuously about nodes exist in the network and provides secure communication in a dynamic network. The attacker is not only the nodes which are not forwarding packets to destination and also attacker/s is being a part of communication with each and every sender. The proposed IDS are not detecting a single black hole but also able to handle multiple blackholes. The attacker nodes dropping are very harmful and dump actual performance of the network. The routing protocol is not able to defend the network from malicious activities. The black hole attacker is a network layer routing attack and the proposed scheme is surely removes the attacker infection from the dynamic network and
improves network performance.

References

10. Sathish, Arumugam, S.Neelavathy Pari, Harikrishnan V," Detection of Single and Collaborative Black Hole Attack in MANET", This full-text paper was peer-reviewed and accepted to be presented at the IEEE WiSPNET 2016 conference.

Index Terms

Computer Science		Wireless
A Prevention Scheme against Blackhole Attack for Securing MANET

Keywords

Blackhole, MANET, Routing, Security, IDS, Malicious nodes,