Abstract

Mobile Ad hoc network is a group of wireless mobile nodes generating a network not by using any existing infrastructure. MANET is a collection of mobile nodes equipped with a wireless-transmitter and receiver that in contact with each other via bi-directional wireless links either directly or indirectly. An encroachment detection system named Enhanced Adaptive Acknowledgement (EAACK) specially designed for MANETs. By the acceptation of MRA scheme, EAACK is capable of finding malicious nodes contempt the existence of the false misbehavior report and equate it against other popular mechanisms in different scenario through simulation. The results will exhibit positive performances against the false misbehavior report. EAACK demonstrates higher leering behavior detection rates in certain circumstances while does not greatly affect the network performances. Malicious attackers to falsely report innocent nodes as malicious can produce the false misbehavior report. EAACK is an acknowledgment-based encroachment detection system. This attack can be deadly to the entire network when the attackers break down sufficient nodes and thus cause a network division. The introduction of digital signature (DSA) is to prevent the attacker from counterfeitacknowledgment packets.
References

- Sun, B. 2004 Intrusion detection in mobile ad hoc networks in Texas A&M Univ. College Station.
Index Terms

Computer Science

Security

Keywords

Enhanced Adaptive Acknowledgement MANET Elliptical curve digital signature