Abstract

Mobile Ad-Hoc Networks (MANETS) are dynamic in nature. It is well known fact that dynamic nature of network infrastructure (of MANETS) results in the highly vulnerable to attacks. Among these attacks, routing attack has considerable attention, since it could cause most destructive damage to MANET. A lot of work is going on in the area of Intrusion detection, and response techniques to appease critical attacks. In existing system, binary isolation and DRC techniques are used to isolate the malicious nodes. However, binary isolation leads to unexpected network partitioning and DRC is associative and non-weighted. Therefore, in this paper, we present an adaptive risk-aware response mechanism using CSS-OLSR cooperative security scheme OLSR based on an extended Dempster-Shafer mathematical theory of evidence. The effectiveness of security mechanism is demonstrated by using network simulator NS2 software in which various metrics shows secured performance of the network.

References


F. Ros, "UM-OLSR implementation (version 0.8.8) for NS2," 2007.

**Index Terms**

Computer Science  
Security

**Keywords**

Mobile adhoc networks  
Intrusion response  
Dempster-Shafer theory