Cluster based Authentication Scheme (CBAS) for Secure Routing in MANET

Abstract

MANET consists of a collection of independent mobile nodes connected by wireless links, where they can join or leave the network at any time. Due to infrastructure-less and mobility in nature, secure routing is essential in MANET to transmit packets from source to the destination. There are different types of routing attacks which causes disruption of the whole network. In our proposed method called CBAS, provides secure routing in MANET against wormhole attack. Hence the nodes are grouped into cluster and each cluster is governed by the cluster head and cluster heads are controlled by the master head node. Zero Knowledge Protocol (ZKP) is used to apply authenticity among the nodes. Communication starts between the source node and the destination node after ensuring that the network contains only the true nodes.

References

- Bill Ewanick "Zero Knowledge Proof" March 31, 2011.

Index Terms

Computer Science  Networks
Keywords
Manet  Clustering  Authentication  Security.