Abstract

Mobile Ad Hoc Network (MANET) is a collection of communication devices or nodes that wish to communicate without any fixed infrastructure and pre-determined organization of available links. The nodes in MANET themselves are responsible for dynamically discovering other nodes to communicate. Although the ongoing trend is to adopt ad hoc networks for commercial uses due to their certain unique properties, the main challenge is the vulnerability to security attacks. A number of challenges like openpeer-to-peer network architecture, stringent resource constraints, shared wireless medium, dynamic network topology etc. are posed in MANET. As MANET is quickly spreading for the property of its capability in forming temporary network without the aid of any established infrastructure or centralized administration, security challenges has become a primary concern to provide secure communication. In this thesis, we identify the existent security threats an ad hoc network faces. To accomplish our goal, we have done literature survey in gathering information related to various types of attacks and solutions. In our study, we have found that necessity of secure routing protocol is still a burning question. There is no general algorithm that suits well against the most commonly known attacks such as
wormhole, rushing attack etc. However, inshort, we can say that the complete security solution requires the prevention, detection and reaction mechanisms applied in MANET.

Reference

A Review of ‘MANET’s Security Aspects and Challenges’

Index Terms

Computer Science  Wireless Networks

Key words

MANET  Security Aspects

watchdog

IDS

Clusters

Agents

PathRater