Abstract

Mobile Ad-hoc networks are characterized as networks without any physical connections. In these networks there is no fixed topology due to the mobility of nodes, interference, multi-path propagation and path loss. One particularly challenging environment for multicast is a mobile ad-hoc network (MANET), where the network topology can change randomly and rapidly, at unpredictable times. As a result, several specific multicast routing protocols for MANET have been proposed. [1]. The objective of this paper is to study the effects of mobility models on the new proposed secured and enhanced reliable Ad Hoc Multicasting Protocol (SERAMP). SERAMP is a new technique to be used for Multicasting in Ad-Hoc Networks and to solve the security problems associated with multicasting in Ah-Hoc Networks. The proposed protocol added two parameters to secure the network, the first parameter is the encryption of the message using random key for the selection of the encryption algorithm, and the second parameter is to use the same random key to calculate the authentication code of the message [2]. This paper applies the proposed secured protocol for the previous work and a comparative study has been made between the proposed secured enhanced and reliable Ad Hoc Multicasting Protocol under the two mobility models, Random Way Point Mobility Model and Reference Point Group Mobility Model.


Index Terms

Computer Science

Wireless
Keywords
Ad Hoc networks  Ad Hoc multicasting  routing security  Mobility Models