Abstract

Security has turned out to be a most important concern to facilitate secured communication between mobile nodes in a wireless environment. It is essential to protect the network from several kinds of security attacks. Recently, large numbers of routing protocols have been developed. But, most of the available protocols are single path or makes use of only a certain...
path at a particular time or can not prevent both the passive attacks and active attacks at the same time. Hence, propose a secured Ad-hoc On-demand Distance Vector routing protocol (AOMDV) based on secret sharing. Cryptography is one of the efficient technique to provide security to data being broadcasted in wireless communications systems. Enhanced information security can be offered by integrating AOMDV and Shamir's secret sharing scheme. In this approach, keys are produced by source and transmitted to the other nodes in the network. AOMDV and SAOMDV (AOMDV with Shamir's Secret Sharing Scheme) are simulated and the performance of both the protocols are evaluated. The performance of Secured AOMDV was stable but that of AOMDV was found to be degrading sharply with intrusion of malicious nodes in the network.

Reference

- Nasipuri A, Castaneda R, Das SR, “Performance of multipath routing for on-demand

Index Terms

Computer Science

Wireless

Key words

Mobile Ad Hoc Networks, , , , Multihop Wireless Networks
On-Demand Routing

Multipath Routing

Secret Sharing