ABSTRACT

Simulations of AODV Protocol with BlackHole Attack in MANET

A mobile ad-hoc network is a temporary network set up by wireless mobile computers (or nodes) moving arbitrary in the places that have no network infrastructure. Since the nodes communicate with each other, they cooperate by forwarding data packets to other nodes in the network. Thus the nodes find a path to the destination node using routing protocols. The types of routing protocols in MANETS are 3 types: Table-driven (proactive) routing, On-demand (reactive) routing, Hybrid (both proactive and reactive) routing and Hierarchical routing protocols. In our project we have tested on AODV protocol which is a Reactive protocol. However, due to security vulnerabilities of the routing protocols, mobile ad-hoc networks are unprotected by the malicious nodes. One of these attacks is the Black Hole Attack against network integrity absorbing all data packets in the network. Since the data packets do not reach the destination node on account of this attack, data loss will occur. In this project, we have carried out the simulations on AODV protocol and compared with AODV protocol with Black Hole attack. Certain performance parameters such as Packet Delivery Ratio and Throughput has been simulated.

Keywords: Mobile Ad-hoc Network, Black Hole Attack, Simulation.

Team Members

A. Arjun (10241A1266)
G. Sai Krishna (10241A1276)
S. Sahas Datta (10241A1254)
P. Pranay Kumar (10241A1249)

Project Guide

Dr. Padmalaya Nayak,
Professor,
Dept. of IT.