

289. PERFORMANCE ANALYSIS OF MANET IN THE PRESENCE OF BLACKHOLE ATTACK

Ramya.E PG Scholar, Easwari Engineering College, Chennai, India, ramya.ethirajan303@gmail.com

Mobile Ad-Hoc network is an autonomous system, where nodes are connected by wireless links. There is no central coordinator to monitor the nodes. Hence, the nodes have no restriction to join or leave a network. MANET is an infra structure less network that utilize multi hop relaying. The routing is complex in MANET when compared to the cellular network which has base station and central coordinator to monitor the network. The Ad hoc On-Demand Distance Vector (AODV) routing protocol is meant for MANETs and is better in performance when compared to Destination-Sequenced Distance Vector (DSDV) routing protocol because the nodes need not maintain any routing table instead it just transmits the packet in on- demand basis that is, a route is established only when it is required by a source node for transmitting data packets. It identifies the most recent path through the destination sequence number. AODV protocol is vulnerable to internal and external security attacks. This paper explores the vulnerabilities of AODV protocol by simulating blackhole attack. By varying mobility scenarios and comparing the performance of the network in the presence and absence of blackhole node. The results obtained by simulations are compared using three parameters such as throughput, average end to end delay and packet delivery ratio.

Keywords—Blackhole Attack, Mobile Ad-hoc Network (MANET), Ad-hoc On-Demand Distance Vector routing protocol (AODV).

Journal of Science and Innovative Engineering & Technology