Anti-Black Hole Attack Mechanism for Ad Hoc On-Demand Distance Vector (AODV) Routing Protocol in MANETs

Mobile Ad-hoc Networks (MANETs) can be set up dynamically anywhere and anytime without the need of infrastructure. MANETs consists of a set of wireless nodes. These nodes move randomly and communicate with each other via a wireless communication links. MANETs routing protocols are vulnerable to several types of attacks, the most famous and common is Black Hole attack. This research simulate the behavior of Black Hole attack on Ad-hoc On-Demand Distance Vector (AODV) Routing Protocol using Network Simulator (NS2.35). Moreover, the black hole node(s) have been eliminated completely using the mechanism proposed in this research. The proposed approach is named as Anti-Black Hole Attack mechanism for AODV (ABHMAODV) Routing Protocol. The proposed mechanism maintains the performance of the protocol while handling Black Hole attacks.

References


Index Terms

Computer Science Networks

Keywords

MANET, AODV, ABHMAODV, Black Hole Attack.