

DIAGNOSIS OF BLACK-HOLE ATTACKS IN AODV PROTOCOL IN AD-HOC NETWORKS THROUGH NS2 SIMULATION USING UDP AGENT

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Abstract

An ad hoc network is a collection of wireless nodes which have the ability to communicate with each other without having fixed network infrastructure or any central base station. The Ad-hoc on demand distance routing protocol (AODV) protocol is one of the reactive protocol designed for ad-hoc networks. But this protocol is vulnerable to the well-known black hole attack. The performance of AODV protocol is severely affected by the existence of black hole in the network. The existence of black can be visualized in the ad-hoc network through NS2 animation by using UDP agent at transport level. Since UDP is a connectionless protocol packets generated at the source will be sent to destination(s) without checking the complete path to the destination(s).The performance of the protocol can be determined by estimating the performance metrics such as packet delivery ratio, average throughput, end to end delay, control overhead and energy consumed in various networks environments.

Keywords : Ad-hoc networks, black-hole, AODV, TCP,UDP agents.