Abstract

A Mobile Ad Hoc Network (MANET) is a self-organizing, infrastructure less, multi-hop network and mobile nodes are free to move in any network. Due to their lack of centralized control, and dynamic topology, MANETs are vulnerable to many attacks. From a security design perspective, there is no built-in security. So, security is one of the main concerns in ad hoc networks. In this paper, a technique DDBA-DSR is presented to protect against the deep black hole attack. Deep black hole is an extended black hole attack that advertises fake RREQ in response to received RREQ as well as overheard RREPs. In this present work, a hybrid mechanism is presented that will perform the detection as well as the prevention to these kind of attacks. Our work is performed in two phases: first, setting criteria for such nodes and secondly, to perform communication along a safer path. NS2 is used for simulation and evaluation of the network parameters.

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Index Terms

Computer Science  Network Security

Keywords

MANET  DSR  routing protocol  deep black hole attack