In recent days Mobile Ad Hoc Network (MANet) has drawn the attention of many researchers largely owing to the inherent characteristics and varied applicability. Unlike traditional wired network, MANet has no clear line of defense. Moreover, the intrinsic properties of MANet expose many nontrivial security challenges. Security is of the prime concerns for network designers in any network. But for MANet, which allows both legitimate network users and malicious attackers to access the network, security issues have been a permanent concern because of the open shared wireless link and nomadic nature of nodes. We present a classification of MANet security threats based on protocol layers of network, security goals, behaviors, timings. Further, we perform a quantitative evaluation of impact of one of these attacks on an insecure on-demand routing protocol using simulation. Ad Hoc on-demand distance vector (AODV) routing protocol was chosen for the implementation of relative strength of the attack and is analyzed in terms of the magnitude of disruption per adversary.

- Sevil Sen, John A. Clark, Juan A. Tapiador, "Security Threats in Mobile Ad Hoc Networks”, Dept of Comp. Sc, University of York, YO10, UK

Index Terms

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