

The Impact of Malicious Attacks on the Performance of Routing Protocols in Mobile Ad-Hoc Networks

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Abstract : Mobile Ad-Hoc Networks are the special type of wireless networks which share common security requirements with other networks such as confidentiality, integrity, authentication, and availability, which need to be addressed in order to secure data transfer through the network. Their routing protocols are vulnerable to various malicious attacks which could have a devastating consequence on data security. In this paper, three types of attacks such as selfish, gray hole, and black hole attacks have been applied to the two most important routing protocols in MANET named dynamic source routing and ad-hoc on demand distance vector in order to analyse and compare the impact of these attacks on the Network performance in terms of throughput, average delay, packet loss, and consumption of energy using NS2 simulator.

Keywords : MANET, wireless networks, routing protocols, malicious attacks, wireless networks simulation

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