

SECURITY RISKS IN AD-HOC ROUTING PROTOCOLS

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Abstract

The concept and structure of Mobile Ad-Hoc Networks (MANETs) make them prone to be easily attacked using several techniques often used against wired networks as well as new methods particular to MANETs. Security issues arise in many different areas including physical security, key management, routing and intrusion detection, many of which are vital to a functional MANET. In this study we focus on the security issues related to ad hoc routing protocols in particular. The routing in ad hoc networks remains a key issue since without properly functioning routing protocols, the network simply will not work the way it's intended to. Unfortunately, routing may also be one of the most difficult areas to protect against attacks because of the ad hoc nature of MANETs. We will present the main security risks involved in ad-hoc routing as well as the solutions to these problems that are available today.

Keywords: AD-HOC Routing, MANET, Loop freedom and Security.