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A survey on MANETs : Architecture , evolution , applications , security issues and solutions (Article) [\(Open Access\)](#)

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Abstract

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Mobile ad hoc networks or MANETs , also referred to as mobile mesh networks at times, are self-configuring networks of mobile devices that are joined using wireless channels. These represent convoluted distributed systems comprising of wireless mobile nodes which are free to move and self-organise dynamically into temporary and arbitrary, ad hoc topologies. This makes it possible for devices as well as people to internetwork seamlessly in such regions that have no communication infrastructure in place. Conventionally, the single communication networking application following the ad hoc concept had been tactical networks. Lately, new technologies have been introduced such as IEEE 802.11, Hyperlan and Bluetooth that are assisting in the deployment of commercial MANETs external to the military realm. Such topical evolutions infuse a new and rising interest in MANET research and development. This paper provides an overview of the dynamic domain of MANETs . It begins with the discussion on the evolution of MANETs followed by its significance in various fields. Besides, the MANETs have been analysed from the security perspective, particularly the work performed in the node misbehaviour paradigm has been elaborated. © 2018 Institute of Advanced Engineering and Science.

SciVal Topic Prominence

Topic: Mobile ad hoc networks | Routing protocols | Hole attacks

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