



Virtual Backbone Formation Algorithms for Mobile ad hoc Networks

By Almahrog, Khalid

Condition: New. Publisher/Verlag: VDM Verlag Dr. Müller | Simulation-based Performance Evaluation | Mobile ad hoc networks (MANETs) are created by the mobile computing devices on an ad hoc basis without any support provided by pre-installed communications infrastructure. Along with their appealing properties, MANETs exhibit properties that hinder their realization. Topology dynamism and bandwidth limitations adversely affect the performance of MANETs routing protocols. Virtual backbone is proposed to facilitate routing, broadcasting, and establishing a dynamic infrastructure for distributed location databases. Minimizing the virtual backbone size produces a simpler abstracted topology of the MANET and allows for using shorter routes. In this book, a comprehensive study of MANETs routing and clustering algorithms is presented along with a simulation-based performance evaluation of the most renowned algorithms using the NS2 network simulator. This comparison focuses on the total costs incurred in terms of CDS size, running time, and signaling overhead generated during the CDS creation and maintenance phases. Moreover, the effects of mobility rates, network size, and mobility models on the performance of each algorithm are investigated. | Format: Paperback | Language/Sprache: english | 148 pp.



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Reviews

This publication may be really worth a go through, and a lot better than other. It really is written in simple terms and never difficult to understand. Once you begin to read the book, it is extremely difficult to leave it before concluding.

-- **Natalie Abbott**

This book will not be simple to get going on reading but extremely exciting to read through. Yes, it can be playful, still an interesting and amazing literature. I am very easily could possibly get a delight of reading a written book.

-- **Rene Olson**