

عنوان مقاله:

VANET Routing Protocols

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خلاصه مقاله:

VANET (Vehicular Ad-hoc Network) is a new technology which has taken enormous attention in the recent years. Due to rapid topology changing and frequent disconnection makes it difficult to design an efficient routing protocol for routing data among vehicles, called V2V or vehicle to vehicle communication and vehicle to road side infrastructure, called V2I. The existing routing protocols for VANET are not efficient to meet every traffic scenarios. Thus design of an efficient routing protocol has taken significant attention. So, it is very necessary to identify the pros and cons of routing protocols which can be used for further improvement or development of any new routing protocol. This paper presents the pros and cons of VANET routing protocols for inter vehicle communication. In recent years, rapid growth in the number of vehicles on the road has increased demands for communication on the move. A new kind of Ad hoc network with an immense improvement in technological innovations is emerging these days known as VANET (Vehicular ad hoc network). It is an assortment of vehicular nodes that act as mobile hosts establish a transient network without the assistance of any centralized administration or any established infrastructure. In this paper we propose a secure and application-oriented network design framework for VANET. We consider both security requirements of the communications and the requirements of potential VANET applications and services. The proposed framework consists of two basic components: an application-aware control framework and a unified routing scheme. Besides the network design framework, we further study a number of key enabling technologies that are important to a practical VANET. Our study can provide a guideline for the design of a more secure and practical VANET. This paper presents a class of road-based VANET routing protocols that leverage real-time vehicular traffic information to create paths consisting of successions of road intersections that have, with high probability, network connectivity among them. Furthermore, geographical forwarding allows the use of any node on a road segment to transfer packets between two consecutive intersections on the path, reducing the path's sensitivity to individual node movements.

کلمات کلیدی:

VANET, security, safety, application oriented, Routing protocol, Communication

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