

Improving the QOS of real-time data transfer by load balancing in Vehicular adhoc networks

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Abstract Creating an effective safety system on the road is a vital and vital concern for today's human beings. According to the World Health Organisation (WHO), more than 1.3 million people die each year in traffic accidents all over the world And road accidents are the eighth death factor in the world. Additionally, traffic bottleneck lead to waste of time and fuel, which makes it more urgent for an efficient road safety system. New techniques in this system should be aimed at creating intelligent vehicles with environmental awareness, communication with other vehicles and taking actions to prevent hazards. The blocking of the line of sight of the leading cars is essentially one of the main causes of accidents. If a road accident occurs and vehicle drivers moving to the accident location are unaware of the incident and can not react at the right time, it can lead to a collision or a secondary accident. However, it is possible to reduce the risk of such a disaster by providing the necessary information on the incident for other vehicles. It is possible to use the facility created by the vehicular adhoc networks in order to transmit real-time alert messages in cooperation with the vehicles on the network. The present dissertation, introducing vehicular adhoc networks, examines routing methods in non-infrastructure networks, and discusses about existing routing protocols, as well as packet transfer strategies in vehicular adhoc networks. The problem of transmission alert messages by the car on the network is then discussed. The transmission of an one-direction alert message based on the AODV routing protocol and then the balanced alert message plan is examined. Different performance criteria of service quality, such as throughput ,end-to-end delay and packet delivery rates are evaluated. The strategy of transmission alert messages on both lines and with the help of alert message transmitters on the front line at the time of the crash will be more helpful. Finally, this analytical study is helpful in comparing and deciding on a warning strategy in road topologies.

keywords: Transmission Alert Messages, Vanet, AODV Protocol, load balancing, Package delivery rate, Qos.

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