Title: Dynamic Broadcasting in Vehicular Ad hoc Networks

Author/Authors: Sara Najafzadeh, Norafida Ithnin, Shukor Abd. Razak, Ramin Karimi

Abstract: Vehicular Ad hoc Network (VANET) is a subclass of mobile ad hoc networks (MANETs). VANETs provide a variety of interesting applications. Many of these applications rely on broadcasting of messages to other vehicles. The simplest broadcasting algorithm is flooding. Because of a large number of vehicles during peak hour, blindly flooding may lead to packet collision and high contention named broadcast storm problem. This paper presents a broadcasting approach for safety messages that dynamically adjust waiting time of a vehicle according to the number of neighbor vehicles and distance to source. We evaluate the performance of our proposed approach in terms of reachability, reliability. The simulation results show our protocol introduces better performance than flooding and random waiting time protocol.