A Comparison of Various Vehicular Ad Hoc Routing Protocols Based On Communication Environments

Baraa T. Sharef, Raed A. Alsaqour, and Mahamod Ismail. "

Abstract

Despite the stern actions by governments, road accidents have become unavoidable throughout the world. Hence it is crucial to take care of the safety of drivers. It is where the Vehicular Ad-Hoc Network (VANET) comes in to the picture, it has paved way for the introduction of a lot of applications, based on the inter-vehicle based communications and infrastructure based communications, which safeguards the drivers and regulates the influx of traffic. However, in order to successfully employ the VANET, the following aspects are mandatory: consistent network procedures, safe means of communication, wireless network with acceptable range and above all support from drivers. Basically, the VANETs are employed in two distinctive communications backgrounds. The traffic condition is very simple in highways but in cities and towns it is very complex. Due to the obstruction caused by the buildings, trees and other obstacles in cities, it is not always possible to have a direct line of communications in the direction of projected data communication. This paper is aimed at studying the routing protocols based on the communication environments of VANET. This study also summarizes and compares the advancements of the VANET protocols.