RoadSpeak: Enabling Voice Chat on Roadways using Vehicular Social Networks

Stephen Smaldone, Lu Han, Pravin Shankar, and Liviu Iftode
Department of Computer Science, Rutgers University, Piscataway, NJ
{smaldone,luhan,spravin,iftode}@cs.rutgers.edu

Abstract

A great number of people spend one or more hours each day driving between home and the office. These daily roadway commutes are highly predictable and regular, and provide a great opportunity to form virtual mobile communities. However, even though these commuters are already physically present in the same location, they are limited in their ability to communicate with each other. This paper presents a framework for building such communities, which we call Vehicular Social Networks (VSNs), to facilitate better communication between commuters driving on highways. As a proof of concept, we present the design of RoadSpeak, a VSN-based system which allows drivers to automatically join VSNs along popular highways and roadways, and communicate with each other by means of voice chat messages.