CSE 537S

Homework #4: Public Service Provision.

Develop a simple protocol that allows an emergency vehicle to issue a public service announcement at a specific point on the highway and ensures the persistence of the announcement at that location for a specific duration of time. Since the highway is assumed to offer no support infrastructure for the dissemination of announcements, this has to be accomplished with the assistance and collaboration of cars traveling at that location.

Assume a highway that has lanes going in both directions separated by some basic concrete barrier. Assume that your protocol is preinstalled on all vehicles, which are equipped with a standard wireless communication capability. Please provide a clean and concise description of your protocol. In addition, please list the conditions under which the protocol will fail.