Collaborative public transportation

Tomáš KRAMÁR

While traveling with the public transportation system, the passenger is often faced with the dillemma – which route to take to get to the destination in the shortest time. The decision is influenced by many factors, which cannot be properly judged at the moment of decision – e.g., is it worthwhile to take the bus that is currently arriving at the station, or is it better to wait for another, which will get to the destination faster? What if the faster bus is stuck in a traffic jam? Or what if there is a traffic jam on the bus's route? The proposed application presents a solution to this problem without the need to provide expensive equipment directly by the public transportation operator. When many users engage with our system, we can leverage their mobile devices which provide localization services to get information about location of any public transportation vehicle (how far it is from the station) and about its speed (how fast is it travelling, is it in a traffic jam?). Using information from other vehicles that are moving accross the city, we can even notify passengers about the traffic jams in advance. We hope to encourage people to travel with public transportation and decrease the amount of traffic in cities, help to to a more fluent traffic and a more healthy environment.