"SOS Autoroute" smartphone application update

Overview

APRR started to develop the *SOS Autoroutes* smartphone application in 2011 as an innovative and more secure way of reporting and identifying accidents and other incidents on its network. The features and the perimeter covered by the application have been evolving since, and APRR decided to make a major update in 2014 to include new features for both end users and road operators. This project was finished beginning of 2017 and resulted in a more intuitive and fast user interface, and a richer information transmission for the emergency services.

Objectives

General background

Emergency call networks are available in France's entire highways network. They are accessibile to users through call booths located in strategic points of highways. In case of an incident, any user can leave his/her vehicle to make a call from the booth directly to the emergency services. Nevertheless, this system presents two major difficulties:

- Users need to move on foot on the highway to reach the booths, potentaily puting themselves and other vehicles in more danger,
- Users tend to use their mobile phones to call emergency services, who cannot locate the incident accurately.

A smartphone application allows users to contact emergency sevices from a safe location not far from the incident, which is easily tracked via GPS, allowing faster and more precise intervention from the emergency services.

Project description

APRR started developing the smartphone emergency call application in 2011, as an innovative solution to ensure security and safeness for users of APRR's infrastructure.

The main feature is an emergency button that simultaneously sends a GPS signal while letting the user contact the services through the emergency call network, wherever internet connexion and GPS signal are available. If they aren't available, the application automatically redirects the user to the 'normal' emergency phone line.

Since, the application has been through several evolutions, which have led to new features such as creating a user profile. Information of the user profile, such as type of vehicle and numberplate can potentially help emergency services prepare in case of an intervention. Moreover, APRR started working with other road operators in France to expand the application's coverage.

This project constists on a major update of the *SOS Autoroute* application. APRR carried a survey to collect reviews and ideas from both users and non-users of the application. Then, the developpers created prototypes that were tested by a user panel, and eventually designed the new application starting from these prototypes. The new features include:

- A new user interface
- Supporting user to signal an incident for another vehicle
- Allowing user to check and update GPS position
- Allowing user to check and recover an overview of the call
- Delivering more specific information for emergency services (nature of the incident, type of vehicle…)
- Integrating e-call and emergency call network on the same backdoor interface

Member States involved:

France

Implementation schedule

Start date: January 2014
End date: January 2017

Budget

Action promoter:	APRR, French motorway operator (member of ASFA)
Total project cost:	50 000 €
EU contribution:	10 000 € (20% EU support)

Results expected

This major update of the *SOS Autoroute* smartphone application is the next step towards a simpler and more secure way of detecting and responding to accidents and other incidents on motorways.

From the user perspective, the new version of the application will allow her/him to communicate more rapidly and more accurately with emergency services. It brings the opportunity to signal events even when not directly involved in it. It will also let users keep better track of the event and the call for more transparency on incident mitigation.

From the emergency services' point of view, the new features will help to better anticipate the intervention, collecting more information on the incident before getting to the site, and centralizing calls from different sources.

APRR sees this application as a practical and low cost solution to precisely monitor highway incidents. The solution has been tuned to fit user's habits and connectivity, and eventually fills a gap while the e-call service is fully deployed.

Geographical Location

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