Abstract

Technological progress and the evolution of our societes allowed that, today, a good part of the population has access to mobile devices with advanced features. With such devices, we have access to numerous information sources in real time, however, this feature is not fully explored.

This project tries to take advantage of this fact using various mobile devices, to create a network for exchanging traffic information. The user only needs to make use of his mobile device, and will automatically get the latest traffic information while, at the same time, shares your information with other users. Although there are other alternatives on the market with solutions that allow you to enjoy the same functionality, none uses this type of devices.

One of the requirements needed in the implementation of this project is a solution of geocoding. After being tested several solutions, none met in full, the requirements of this project, which led to the development of a new solution, that meets these requirements.

The solution is very modular, composed by several components, each with clearly identified responsibilities. The architecture of this solution is based on Service Oriented Architecture design pattern. All components provide their operations through web services, and their discovery uses the protocol WS-Discovery. These components can be divided into two categories: core, responsible for creating and offering the required features in this project and the external modules, which include applications that provide the functionalities to the user.

We created two ways to consume the information offered by SIAT service: a mobile application and a website. To the mobile devices, was developed an application for the Windows Phone 7 operating system.

Keywords Traffic, sharing network, mobile devices, SOA, WS-Discovery, Web services, WP7.

SIAT - Sistema de Informações e Alertas de Trânsito

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