

CityGO

Transportation Planner and Intelligent Mobility Solution

Business Challenge

Today 54% of the world population lives in cities and by 2050 this figure is estimated to reach 66%. If we want to reduce pollution, mitigate climate change and contribute to make cities of the future smarter and more livable for everyone, we must tend towards the use of public transportation. Actually, efficient urban mobility goes far further than multi-modal journey planning.

Local authorities also need to focus on traffic flow optimization and environmental issues. Currently, smart mobility solutions are based on traffic signal priority for emergency and public transport vehicles, traffic maps creation and near real-time travel information for drivers regarding anticipated journeys. These solutions often use data from GPS sensors in buses, and, in some cases, traffic detectors. While most of these sources are useful for reactive adjustments, mobility patterns must be integrated to allow proactive planning or traffic management.

Considering this scenario, Atos has developed **CityGO**, a mobile application for users to plan their city itineraries according to their preferences and usual habits, complemented with a web application for the municipality of the cities called **CityDash**.

It is common for citizens and tourists in a city to use multimodal journey planners that combine transportation open data, schedules and traveling time from different sources, such as Google Maps. But CityGO provide other essential elements making transport more sustainable, healthy and efficient:

- Provision of personalized real-time data and information;
- Flexible journey planning and route optimization;

- Integration of multilevel and multisource information to ensure the highest possible transport efficiency in terms of criteria chosen by the user;
- Real-time information on traffic problems and possible transport alternatives;

As citizen choices affect the sustainability and efficiency of urban transport systems, data collected from journey planners is becoming essential for any municipality. Therefore, to obtain these valuable data, local authorities and transport operators in many European regions have started to develop their own multimodal journey planners.

This is where CityGO and its complementary CityDash offer key benefits. With the help of a reusable infrastructure, software components and templates, as well as customized features for each city, the cost of developing and deploying city-specific urban mobility applications is drastically reduced.



Description of the solution

Atos provides an innovative solution addressing the challenges above mentioned, which is easily customizable to any city:

- **CityGO**, a mobile application for citizens
- **CityDash**, a web-based dashboard for city/municipalities operators

The CityGO solution promotes transportation diversity in the city engaging citizens through the use of their smartphones and GPS. On the front-end, it consists of a mobile application, which indicates to the user what public transport options are available at any time for a particular route. For instance, it suggests options such as electric car sharing, buses, nearest public bike rental stations, available parking spaces, etc. Everything is managed in real time to obtain an optimal route based on data provided by the sensor network and open data from the city.

In the back-end, the solution includes the CityDash, a web-based dashboard for the city municipality control center, which allows civil

servants to visualize all the data coming from the city sensors network. CityDash provides cities, public sector workers or third party companies with detailed, up to date and intelligent data about the city that supports everyday decision making and fosters evidence-informed analysis. This information is fundamental to improve the planning of the traffic in the city, in times of high tourist flows, sports events, or, for example, when there are street cuts. It allows detecting the need to increase the number of bicycles available, incidents with them, etc., and thus promote adequate management of available resources.

The key features of CityGO can be summarized as:

- Based on the user profile and usual routines (GPS position, usual routes, preferences), CityGO adapts the routes to each user and provides personalized recommendations
- It displays
 - Information about buses lines, schedules,

stops, status of traffic and queues in real time

- Recommendations to use alternative public services, such as bicycle, car sharing or parking availability

Additionally, the key features of CityDash are the following:

- Dashboard that enables the visualization of real-time information, time-series indicator data and interactive maps about all aspects of the city.
 - City traffic flow, people movements, cars, bus fleets, etc.
 - Location of the citizens connected to the Mobile App.
 - Video map showing citizens movements the previous day.

Benefits

The benefits of CityGO and complementary CityDash are relevant for citizens, local authorities and public transport operators. Low-cost development and deployment of customized urban mobility CityGO app (not limited to multi-modal journey planner) is the main enabler for passenger data analysis.

Benefits for the user are related to the recommendations on what's the best itinerary to take and what's the best means of transport based on the real-time information in a proactive way, so the user doesn't have to express his exact itinerary every time.

For the city, the app presents real advantages as it gives information on users' regular itineraries that allows better planning of routes (streets usage and possible adjustments, traffic lights, etc). CityGO gives information on bus routes, lines information and also what the user does before and after taking a given bus. Also, the bicycle information systems provide information on users and how many parking spaces available are needed.

Visit www.city-go.eu



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