INTELLIGENT TRANSPORTATION SYSTEMS

Smart public transport system for the city of Toledo

The project

- On-board and in-station ticketing system:
    - On-board sale and validation
    - Auto-recharging terminals
- Passenger information:
    - 93 stops with information panels
    - On-board multimedia information
    - App
- Safety: On-board video monitoring system
- AVLS
- Integrated ITS control centre

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« Particularly noteworthy features are the online charging facility and the good visibility of the bus–stop panels »
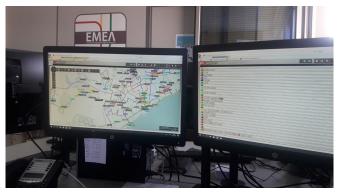*Ramón Martínez, Managing Director of UNAUTO*

GRUPO RUIZ

UNAUTO

gmv
INNOVATING SOLUTIONS

Initial situation and objectives

UNAUTO SL, become part of the Ruiz Group in 1990, when it was already a public transport operator in the city. **UNAUTO** has always favoured using state-of-the-art technology in its service, using a basic Tracking and Monitoring system and a ticketing system based on contactless cards.

Following the renewal of the concession by Toledo Council, the goal was to renew and extend the Tracking and Monitoring System's functionality, including advanced management and on-board safety measures, improving and extending the information made available to passengers and modernising the ticketing system, ensuring the compatibility of the cards currently in use, thereby improving the citizen's experience.

Solution

The solution implemented is an integrated management situation which covers fleet management, safety, user information and ticketing. It includes an advanced Tracking and Monitoring System, an onboard seat occupancy monitoring system for the whole fleet, an onboard CCTV platform, a UIS platform providing onboard multimedia information to users and an information system with 93 panels at bus stops, including voice announcements with activation of the Ciberpass System for the visually impaired.

In addition, the contract includes the development of an Android and IOS mobile application to provide general information about the service and arrival times in this public passenger transport service.

Results

The new system makes the payment process easier for passengers and allows revenue to be precisely controlled. The introduction of automatic machines in the street saves time and makes charging more flexible.

The full range of information systems for passengers (Apps, web, information onboard and at stops, etc) and the safety and disabled-assistance systems increase the value of the service offered by **UNAUTO** while improving Toledo's image, making it a leader in the provision of urban transport services.

Since it is an open and standardised system, its capacities can be enhanced with planning and optimisation systems, efficient driving systems, traffic-light control, demand-driven transport and other functionalities that may be required in the future.

Technological modernisation of public passenger transport in the city of Toledo with a complete integrated transport management solution

UNAUTO, a passenger transport company that forms part of the Ruiz Group, urban public transport provider in Toledo, has, with the city council, taken on the challenge of providing the service with a technological overhaul. To achieve this goal, the Ruiz Group has once again asked GMV to implement a comprehensive fully-integrated ITS system that uses the latest technology.

«GMV and UNAUTO have formed a great team for carrying out this project successfully»
Ramón Martínez, Managing Director of UNAUTO

As regards the ticketing system, the latest driver's desks are used, which can issue and validate current farecards and carry out online recharging. There is also a system of inspection and control which uses handheld terminals and three automatic devices for recharging farecards in the street, with the option of paying by EMV bank card.

The system meets European standards on the publication of information: the central Tracking and Monitoring application provides a series of WEB services under the SIRI and GTFS standards.

All the systems are integrated so that they share information about the **UNAUTO** configuration process (topology, schedules, fares) and real time management and subsequent analysis of the information.

UNAUTO manages the passenger transport service in an integrated and optimal manner, obtaining reliable information about the whole operation (schedules, passengers, ticket sales, use of contactless cards, timetable compliance, routes and frequencies, passenger flows, etc.), allowing analysis of the daily functioning of the system and the inclusion of changes to improve the service.