



INTELLIGENT TRANSPORTATION SYSTEMS

Intelligent transport system for the public transport of Cyprus

The project

- On board equipment for fleet management and ticketing for more than 800 buses
- Multi-fleet system for 7 operators
- High-availability data centre (primary and secondary hosts)
- Ticketing system:
 - In-vehicle sales and validation
 - 30 points of sales
- Security: On board CCTV
- Passenger Information System:
 - 30 LED displays and 40 ChLCD solar displays
 - On board multimedia information
 - Web and mobile App
- Integral maintenance for 8 years

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Marios Demetriades, Minister of Transport Communications and Public Works during the implementation of the project

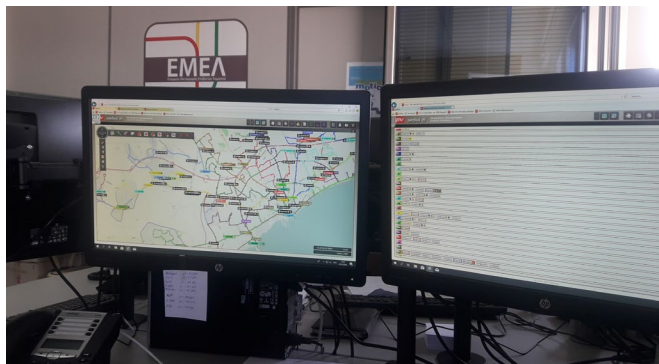


Κυπριακή Δημοκρατία



Initial situation and objectives

Prior to the decision of the Government of Cyprus to modernize the country's public transport, the management of the fleet and collection of tickets was carried out manually by the operators, depriving the Ministry of any visibility on the collections. The new ITS platform was meant to provide an integrated, automatic and auditable ticketing system, a planned and controlled transport system, as well as a reliable information tool for passengers.



Solution

The implemented solution is a turnkey project that comprises a Multi-fleet and Multi-operator ITS integral solution. GMV's solution includes fleet management, on board and in stop passenger information systems, ticketing and on board video surveillance.

For the centralized management of the entire ITS platform, the Ministry of Transport, Communications and Public Works of Cyprus chose a secured and high-availability hosting, with datacenters replicated in two cities of Cyprus, Tier III category, a pioneering ITS solution in Europe, where GMV is directly responsible for the management of the hosting and communications. From there, the service is provided to the different operators and the Ministry, who monitor and oversee the operation and evaluate the results.

Both disposable Ultralight cards and Desfire EV2 plastic cards are used as fare media. Desfire EV2 is the technology that guarantees the highest level of security today.

Results

After the implementation of the new systems the Ministry of Communications and Works has an automated, auditable and controlled ticketing system as well as a common fare policy. The availability of transaction records greatly facilitates the auditing process. In addition, the Fleet Management System allows to monitor the quality of service and to introduce improvements.

For the operators, the new system reduces the workload of drivers, who sold tickets manually, and allows them to keep track of service compliance in terms of punctuality, regularity, eco-driving...

Users benefit greatly from the system, by the ease of a common tariff system in the country and the reliable real-time information.

Integral management of the public transport in cyprus, with complete and advanced fleet management and ticketing solutions

The land public transport, performed exclusively by road, is provided by about 800 urban and interurban buses operated by 7 companies under concessions granted by the Ministry of Transport, Communications and Public Works. In 2016, this Authority decided to modernize technologically these concessions through a public tender where the most relevant international companies in the sector participated and where GMV prevailed.

GMV completed the project in May 2018, meeting the deadlines set by the Ministry.

The wide range of existing vehicles, from minibuses to articulated buses, with an old stock in many cases, and a blend of large and very small operators, posed a challenge for both the management of the assets and the design of the most suitable architecture for each one. The solution implemented by GMV includes a mix of both complete fleet management devices, electronic ticketing machine, smart card validators, on board infotainment and CCTV with other buses and minibuses in which an integrated device with ticketing and location/communications capabilities were installed. The high variety of configurations implies a new challenge for the installations and maintainability of the system.

These challenges have been overcome by GMV by applying a local deployment strategy in Cyprus, with facilities and staff dedicated exclusively to the project.

All the systems are integrated so that they share information both in the configuration process (topology, schedules and fares) and in the processes of real-time management and the subsequent analysis of the information.

In 2018, the Authority relied again on GMV to extend the passengers information system with 40 displays with ChLCD technology and solar power for the city of Limassol and 40 new buses equipped with on board multimedia information.

