

Case study
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PUBLIC TRANSPORT IN ATHENS EQUIPPED WITH APLICOM VEHICLE COMPUTERS

The first and unique Integrated Fleet Management System ever deployed in Greece has been developed by n-topos, Aplicom's Greek partner, for the needs of a major Bus Operator (ILPAP). ILPAP is managing a public transport network of 21 bus lines with over 350 vehicles, within Athens Metropolitan Area.

This project consists of the development of an Automatic Vehicle Location (AVL) and Intelligent Transport System, which allows fleet supervision by real-time tracking and monitoring of vehicles at the Control Center and handles all information regarding the consistency of timetables, ticket invalidation statistics, mechanical condition of vehicles and driver's ID. Software applications for planning and scheduling, Resource management, Real-time Control and Statistical analysis have been developed. Two-way voice and data communications between the Control Center and the trolley buses have been implemented. The system also offers the passengers information regarding next stop approaching, traffic congestion conditions etc.

The system has totalled over 1 billion real-time transactions without failure. The system comprehends the OCC (Operational Control Center), the on-board systems, the differential GPS station and the radio communication network base stations. The tracking and location precision of the system is 5 metres in downtown dense urbanisation.



The powerful and reliable Aplicom ICA-series vehicle computers have been used on this project, allowing interfaces with various peripherals, such as a GPS-receiver, a smart card reader, ticket validators, odometer, sensors and VMS for passenger information.

The driver is able to send predefined messages, emergency signals and voice requests to the control centre using either the keyboard and the display terminal or his press to talk microphone. Full duplex voice and data communications between the control centre and the vehicles are accomplished via an analogue RF network consisting of two repeater sites, while a multi-platform version is also available now for GSM, GPRS and TETRA systems.

n-topos carries a significant experience in major fleet management systems for public transportation. Over the years, it has created a strong collaboration with Aplicom on telematics and fleet tracking solutions. For this project n-topos has a maintenance and expansion contract until December 2014.

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