Integrated mobility management (Verona, Italy)

The Project:

Verona, a city in the north of Italy with a population of 300,000, has successfully deployed a large number of ITS systems in its metropolitan area. These are based around OMNIA; an ITS platform with an open architecture that allows the integration of various ITS systems. In Verona the OMNIA platform has following subsystems.

- The Urban Traffic Control (UTC) system is based on the UTOPIA system and controls more 70 traffic light intersections. This continuously monitors traffic conditions and optimises traffic signal plans (cycle length, offset and stages duration) to give priority to public transport (absolute priority vehicles and vehicles behind schedule) and to lower private transport travel times.
- The Verona Traffic Management Centre (TMC) is powered by the MISTIC subsystem; an integrated and modular solution enabling traffic monitoring, management and control, the supply of real-time information to multiple communication channels and the management of real-time and forecast traffic models.
- The Public Transport Management (PTM) sub-system ensures public transport regularity and commercial speed by means of the AVM system operated by Turin's public transport.
- Information is conveyed to transport users through a variable message sign management system based on the system COMPASS, which controls many signs on the most important roads of the city. Current traffic conditions, problems, suggested roads and the availability of parking places are given to users in real-time.

The OMNIA system allows for expandability, to provide additional capacity and functionality, without having to change basic system characteristics. It is also easily integratable into existing traffic management systems

Current successes/problems

This system has helped to reduce travel times throughout the network using integrated traffic management (by 29%), whilst lowering emissions levels (by 14%). Additionally, data from different subsystems are shared in common databases, which can improve accuracy and improve the level of services.