OMNIA

THE USER-FRIENDLY AND HOMOGENEOUS ACCESS TO A WIDE RANGE OF ITS APPLICATIONS

The OMNIA Platform is SWARCO's state-of-the-art solution for the integrated road transport environment. Its modularity and scalability means that it can be successfully adopted for large-scale systems with many applications already installed as well as cities and regions at an early stage of ITS development.

INTEGRATED ENVIRONMENT

OMNIA offers a high level framework which provides a single access point for all the component systems and support for the whole life cycle of a system: implementation, operation, updating and planning.

ANY ITS APPLICATION CAN BE SIMPLY 'PLUGGED IN'

OMNIA's open architecture means that any ITS application (Urban Traffic Control, Public Transport, Parking, Streetlights, VMS, etc) can be integrated within the platform, independently of the supplier or technology.

TAILORED TO YOUR SPECIFIC NEEDS

OMNIA enables any city or region to build its own "made to measure" ITS environment. It is possible to add new ITS applications when required and also to modify the services associated with existing applications.

EASY-TO-USE GRAPHIC INTERFACE

One of OMNIA's strongest features is the exceptionally flexible and user-friendly graphical interface which is also multilingual. The clear graphics allow rapid and intuitive interpretation of the real-time status of the network. An operator can view single or multiple windows, and zoom in for full details of any of the systems.

DISTRIBUTED DATABASES

The platform collects real time data and uses it not only to manage operations but also to model and forecast mobility demand. This gives all applications access to high quality data, which is also available to operators and city managers for their strategic planning. The DBs themselves remain independent in order to keep the system open and flexible.

EMBEDDED TRAFFIC MONITORING

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OMNIA offers embedded functionalities for advanced traffic monitoring which includes traffic data and system component diagnostics.

All the traffic measures (traffic volumes, speed, etc) and traffic related data (e.g. signal plan, clearance capacity, turning proportions) are gathered and stored in the central system archive together with their estimated statistical profiles.

The diagnostic status is constantly updated for all system components. This data is stored and made available through dedicated screens and detailed reports. Availability indicators are calculated to support maintenance and automatic alarms are generated when problems are identified.

A COST-EFFECTIVE BASIS FOR THE FUTURE

OMNIA is a strategic investment for both the present and the future. Its effectiveness in managing ITS applications brings immediate returns as well as long term benefits due to the support it gives in strategic planning. The ease of extending the platform to include new applications means that future extensions come at a lower cost.

KEY BENEFITS

Once the basic platform has been installed, further developments are simplified due to:

- The “open” nature of OMNIA, which makes it possible to connect – when needed – new components, new peripheral units and use new communication media and standards
- The existing data models, protocols, Geographic Information System (GIS) and maps can be reused in the future by any new systems, saving time and money.

A system which starts small and simple, can in time grow large, both in terms of functions and area coverage.

OMNIA: suited to different organisational models

The modular architecture of OMNIA makes different approaches possible:

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- A centralised organisation will use OMNIA as the common access point for surveillance, monitoring and control of all applications.
- A de-centralised organisation will give responsibility to the operators of any group of “single systems” (i.e. UTC, PT, Parking, etc.), while OMNIA ensures interoperability and coordination.

Mixed models are also feasible: OMNIA technology allows the operator to choose.

OMNIA: cost effective operation

The OMNIA platform provides added-value to users thanks to:

- The availability of a comprehensive set of data, making it easy to optimise operations, understand mobility needs, and plan future enhancements.
- Real time modelling and forecasting functions which enhance all existing and future system

SWARCO is present in most countries of the world, this gives OMNIA an added advantage as:

- Systems developed by local SWARCO companies have long been adapted to local requirements, standards. OMNIA benefits from this experience and incorporates all outcomes (e.g. protocols, standards, programming languages, etc.).
- The national/local Swarco company will insure that deployment, commissioning, assistance and main tenance are carried out to your satisfaction.

OMNIA has been designed for the worldwide market, but can respond perfectly to local requirements.

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TECHNICAL DETAILS

Server System(s) **Minimum requirements for small systems:** **(<50 intersections)**	CPU: Quad Core Intel® Xeon® @ min 2.26GHz (Intel® Xeon® L5520 or equivalent) RAM: 12GB Operative System: Windows® Server 2008 (Standard x64 edition) + 5CAL DBMS: Microsoft SQL® Server 2005 (Standard Edition– single processor) or Microsoft SQL® Server 2008 +5CAL
System Workstation(s)	CPU: Intel Core 2 Duo® @ min 3,16 GHz (Intel Core 2 Duo® E8500 or equivalent) RAM: 4GB Browser: Internet Explorer (8 or newer), Mozilla FireFox (3 or newer)

VIDEO

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