



Intelligent Urban Transport Systems



New products, services and technologies at IT-TRANS 2018

Part 2: Travel information

Karlsruhe/Brussels, 28 November 2017. From 6 to 8 March 2018, the international public transport sector will gather for the sixth **IT-TRANS** – International Conference and Exhibition on intelligent urban transport systems, at the Karlsruhe Trade Fair Centre. Spread over 15,000 square metres of exhibition space, some 250 exhibitors from more than 30 countries will present their latest products and services from segments such as travel information. Relevant topics in this field, amongst others, are real time passenger information (RTPI) and on-board passenger information systems as well as intermodal transport control systems (ITCS). The current trends in this fields will be discussed among others in the market update forums which take place in the exhibition in addition to the conference.

CN-Consult: Real time passenger information services in stations and vehicles

CN-Consult's web-based DiLoc|Motion software for dispatching, localisation and station passenger information services supports a reliable information flow between different transport operators, whether they operate railways, ships or buses. Passenger information services in the vehicle itself are also connected to this system thanks to DiLoc|OnBoard. For the first time, the system provides passengers with real-time information on service status, punctuality and connections over 4G. In addition to daily and dispatching timetable updates, the system also transmits all software updates to the vehicle. This is all possible thanks to CN-Consult's MPI (Mobile Passenger Information) open interface.

CN-Consult's innovative InnoScreen display technology range is compatible with these systems solutions. It stands out from the crowd thanks to features including low energy costs and high durability, as well as ultra low maintenance and easy servicing. The full-colour LED screen for outdoor use, with its pixel pitch of just 2.5mm, is the highlight of **IT-TRANS** 2018. Thanks to the use of UV-resistant LED modules with a brightness of 6,500 cd, it can even be used in direct sunlight. CN-Consult uses a modular system for all its LED display systems, allowing for a number of display sizes.



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All over Europe DiLoc|Sync software electronically provides more than 16,000 professional drivers in over 100 companies with up to date and personalised documents, sending them directly to the tablets, netbooks or smartphones of mobile staff at the touch of a button. CN-Consult is proud to announce that this system will be the first to receive daily speed restriction zone updates (Tages-La), issued daily by DB Netz AG and available as a PDF. With DiLoc|Sync, railway companies can receive this information automatically and disseminate it at their convenience. The newly integrated PDF reader now offers users the option of simultaneously displaying two documents next to each other (split-screen).

dresden elektronik's E-Paper Display deZign sets new benchmarks

deZign stands for an electronic display system with zero energy consumption and is based on e-paper technology. At **IT-TRANS 2018** dresden elektronik will present for the first time the series version of the new 31.2" display. The large display can replace the classic DPI display at stops and is superior to other display technologies with its very low energy consumption and excellent readability at all lighting conditions.

In addition to this exhibition novelty the focus will be on the already established 15.4" version with various additional options. With the integration of a vandalism proof pushbutton the user has the possibility to switch the content itself at site. Several images are available for the user to select from. An additional feature is text-to-speech. With this function it is also possible to announce special information operated from a central station. The new visually impaired mode will also be showcased for the first time at **IT-TRANS 2018**: It reproduces content in a special form in order to increase the visual accessibility of the display.

Up to now the classic version Urban Station has been available in a stainless steel or plastic case. Here the display system gets integrated into an existing infrastructure and data can be transmitted in three ways: serial interface, cellular radio or DAB+. The energy self-sufficient version Green Station has already been tested in a number of customer projects. Using solar power updates can be performed and transmitted either via cellular radio or via DAB+. Combining great display features, very low power consumption and environmentally resistant components deZign sets new benchmarks in the field of digital signage.

Axentia – Real time information at all stops



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Swedish Axentia will showcase their innovative iBus Display System for public transport. The system uses battery powered displays. With battery operation time exceeding three years, the advantages of this display system are low procurement and installation costs, a simple installation procedure, and low service costs. The iBus Displays can be installed at all stops, even where little or no solar energy is available. Real time information services can now be afforded over larger areas, bringing up to date information to all places where it previously has not been economically feasible to implement real-time information services. Data via existing GSM/3G/4G networks enable any public transport operator to start using the iBus System for any size of implementation.

Key benefits of the Axentia iBus Display System:

- Battery powered, totally autonomous displays
- Simple installation, commissioning, service and maintenance
- Deployment scalability
- Display management via web user interface
- Communication between the iBus server and the iBus displays via mobile network, with roaming

LANCom PIS – A complete system for visual and audio notification of passengers

The PIS© Software Solution represents the core component of a passenger information system developed by Slovenian company LANCom. It provides clear and straightforward information about current delays, cancellations and other events, enabling more effective planning of everyday trips or longer journeys. The system receives all relevant information about individual rides from the selected vehicles. In most cases, it is connected to signalling devices on the railway lines or to GPS position inputs from the vehicles. This connectivity enables a dynamic calculation of actual delays and advanced anticipation of arrivals at each station. Unforeseen events (cancellations, re-routing, obstructions, etc.) are entered and managed via a central web interface. Otherwise, the system operates fully automated.

The passenger information is displayed on robust LCD/TFT or LED displays. All units can be positioned out in the open and in different locations, such as waiting rooms, underpasses, halls, etc.

The system supports prerecorded audio files, audio generation from text (TTS Engine) or a combination of both in various languages. Automatic audio



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notifications are then generated and played in selected zones at a selected time. The audio and video information is always in sync, irrespective of potential delays or obstructions.

GeoMobile offers integrated system solution ivanto for urban mobility services

GeoMobile from Dortmund turns vehicle and station buildings into smart objects that are accessible for human interaction and that support users' activities. This service is based on ivanto - an integrated system solution for urban mobility services. It removes barriers and improves passenger information. An intermodal routing engine, the ivanto white-label smartphone app, the ivantoCore hardware module and Mobility Data Cloud are the key components of the system.

The app for smartphones is the centerpiece of the urban mobility solution – a personal mobility companion for innovative public transport companies and mobility service providers. The smartphone app is the transport companies' mobile communication channel to their customers. It is easy to use and enables a bidirectional interaction with the public transport infrastructure. App features include:

- intermodal route calculation
- interactive map with live positions of vehicles
- pervasive travel companion with assistive mode
- push notifications for users
- indoor guidance for station buildings

The ivantoCore smart communication module enables bidirectional communication between smartphones and public transport vehicles in real time. ivantoCore at the station supports accessibility vehicle-interaction for passengers without smartphones. The smart communication module provides the data base for numerous functions:

- vehicle radar and passenger WiFi
- remote control of vehicle pushbuttons
- BiBo (be in - be out) and CiBo (check in - be out) journey data
- fleet management system and live-tracking of vehicles

Anonymous access, tracking and interaction data of passengers is collected through the ivantoCore hardware and is processed and analysed in the Mobility Data Cloud. A web portal provides easy access to the ivanto Mobility



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Data Cloud that features services for remote device administration and fleet management. Furthermore, it is the source for innovative value-added data-driven services including easy mobile ticketing and counting passenger numbers. Mobility data of users is continuously recorded and aggregated to advance traffic management and urban planning.

Further innovations from Televic Rail, MENTZ and Passengera.

Televic Rail from Belgium will present one of its latest projects at **IT-TRANS 2018**: the innovative passenger information system of the new San Francisco light rail cars. The company provides the custom IP network, information screens, the complete audio communication system and the necessary software for content management and real-time-connectivity.

Munich-based MENTZ has developed a ticket shop and ticket generator with API that is seamlessly integrated into their Companion app – a multimodal travel companion. The fully-integrated ticket and passenger information solution will be exhibited in Karlsruhe for the first time.

Passengera will introduce a new product for connected vehicle solutions with its high-performance mobile computing and networking unit called Passengera server+. It is a modular hardware platform certified for transport environments. The Passengera server is delivered with the Passengera infotainment platform to extend its functionalities in all-in-one unit on board. The solution offers features such as real time route information, trip planning and passenger WiFi.

DISCLAIMER

The published articles express the personal opinions of the authors and in no way represent the views of the International Association of Public Transport (UITP) or Karlsruher Messe- und Kongress GmbH. Some slight amendments might have been made to the articles provided by the exhibitors. Status: As of November 2017. Subject to alterations.

Captions:

CN-Consult presents its document management system DiLoc|Sync for mobile staff at **IT-TRANS**.

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IT-TRANS, International Conference and Exhibition on Intelligent Urban Transport Systems, celebrated its debut in Karlsruhe in 2008. Within a short period, the biennial event was established as the most important platform for the industry. It is organised by the International Association of Public Transport (UITP) and Karlsruher Messe- und Kongress GmbH. **IT-TRANS** is aimed at all players in the public transport sector, and in particular at decision-makers from transportation companies and representatives of the private sector, government and professional associations. At seminars, workshops and presentations held during the three-day conference, international speakers will discuss innovations and how to practically implement IT solutions for public transport. About 250 international companies and service providers will present their latest products at the exhibition.

The next **IT-TRANS** will take place at the Karlsruhe Trade Fair Centre from 6 to 8 March 2018.

More information: www.it-trans.org and www.twitter.com/IT_TRANS