February 2012

EXPONEWS

IT Solutions for Public Transport

IT-TRANS

KARLSRUHE TRADE FAIR CENTER • GERMANY
15 - 17 February 2012

Organisers

UITP KMK

Patronage

Siim Kallas
Vice President of the European Commission responsible for Transport

Dr. Peter Ramsau
Federal Minister of Transport, Building and Urban Development

Federal Ministry of Transport, Building and Urban Development

IT-TRANS Conference

Topics that will be addressed at IT-TRANS include:

Travel information - There is an ongoing discussion about a European multi-modal journey planner. The discussion is driving the hotly debated topic of data sharing.

Ticketing - There is a trend for moving data from the card to the back office. A unique ID number refers to your data and means of payment: what is 'ticketing as a service'?

Social media - Maybe the most important part of IT-TRANS is the serious introduction of the social media topic - the real customer perspective, a modern means of communication, especially with our younger customers, the link with the new generations.

More than 25 international speakers sharing their know-how and expertise! Among them:

- Kazuhiko Aida, Deputy Director, East Japan Railway Company, Tokio, Japan
- Answer Lang, Content Manager Social Media, Wiener Linien, Vienna, Austria
- Guliz Ozturk, International Marketing Manager, Kentkart Ege Elektronik Ltd. Stl., Istanbul, Turkey
- Philippe Guittat, Managing Director Public Transport, Accenture, Paris, France

Busy schedule but still want to go to IT-TRANS?

- Go for the light registration option: One-day conference and exhibition pass
- Visit the IT-TRANS Exhibition: One-day exhibition pass

More information on
www.it-trans.org

"With the entire world as the geographical target market for our rugged handheld computers, it is instrumental to participate in the events that are most well organized and with the best attendance. **IT-TRANS is a great meeting place for decision makers in public transportation**."

Sofia Löfblad, Marketing Director, ***Handheld Group***

"Being active in the IT market for public transport – participating at IT-TRANS is a must. We always experience **memorable discussions and establish key relationships with transport professionals from around the world**. IT-TRANS offers us the opportunity to meet the people we want."

Andrea Mohr-Braun, Marketing Manager, ***INIT***

"The IT-Trans is one of **the most important and relevant exhibitions regarding eTicketing and IT** - a must be there"

Sjef Janssen, managing director, ***VDV Core Application GmbH & Co. KG***

"**Moviken values very highly its participation in IT-TRANS**. It is great to have an exhibition and conference which is really dedicated to our precise field of activity and is attended by so many decision makers from all across Europe".

Ian Day, International Business Development Director, ***Moviken Group***

"Sigtec is excited to be returning to Karlsruhe for IT-TRANS 2012 for an even bigger and more exciting exhibition than in 2010. We feel that IT-TRANS 2012 will **provide the best platform for launching our expansion into Europe and look forward to welcoming public transport professionals**."

Matthew Smith, Regional Operations Manager, ***Sigtec (Europe) Ltd***

"We definitely think that from our experience with the UITP congress in Vienna 2009 and the previous IT-TRANS, the upcoming event will again be **an excellent opportunity to share the results and the value of our latest customer reference projects with the relevant and responsive community at one stop**."

Juergen Fuchs, Director Strategic Projects, Authorised Officer, ***Indanet AG***

Exhibitors news in this edition:

- Accenture
- ACKSYS Communications & Systems
- ACS Solutions Switzerland Ltd A Xerox Company
- Arcontia Technology AB
- CALYPSO NETWORKS ASSOCIATION
- CARD4B
- Collis
- Crane Payment Solutions
- Data Respons GmbH
- Databay AG
- DILAX Intelcom GmbH
- easy.GO A product of the agent factory GmbH
- EOS Uptrade GmbH
- FARA
- Fluidtime Data Services GmbH
- GIRO
- Handheld
- Hoeft & Wessel AG
- ifak system GmbH
- Indanet AG
- INIT
- IVU Traffic Technologies AG
- Karlsruher Verkehrsverbund GmbH (KVV)
- Kentkart
- MEI Inc.
- Moviken SA
- Nettropolis AG
- NXP Semiconductors
- Prodata Mobility Systems NV/SA
- Projektron GmbH
- PSI Transcom GmbH
- PTV AG
- RADCOM
- Sigtec Pty Ltd
- Syntactix GmbH
- TELEFUNKEN Radio Communication Systems GmbH & Co. KG
- telent GmbH - ein Unternehmen der euromicron Gruppe
- Thales
- Trapeze Switzerland GmbH
- Unwire
- VDV Kernapplikations GmbH & Co. KG

IProuter: Seamless use of communication channels made possible

Modern ITS systems cover a large variety of applications that are based on communication between central systems and on-board computers in vehicles. For example, actual position information and schedule adherence have to be transmitted frequently for real-time passenger information and operations control. Additionally, new features like vehicle diagnostics, video surveillance, infotainment systems and real-time transfer information have to be integrated. All these applications require the exchange of masses of data and therefore call for a broadband data communication link based on the IP protocol.

Intelligent communication concept

GSM / GPRS / EDGE / UMTS, 802.11 b/g/n WirelessLAN, WIMAX, 4.9GHz, Wi-Fi and MESH are communication modes that provide the bandwidth needed for today's communications challenges, and have become especially important within public transport. To facilitate the use of these modern communication channels as much as possible, INIT developed the IProuter. The IProuter serves as the central communication gateway to the dedicated Wide Area Network (WAN) for all IT systems on board. Hence, it provides a large variety of on-board interfaces (Ethernet, USB, VGA, serial ports, audio), offering access to the broadband data communication network for multiple vehicle devices (e. g. on-board computers, ticket printers, CCTV, TSP modules, TFT screens, passenger counting systems).

The IProuter guarantees a seamless switch-over between all available communication channels and automatically selects the most suitable communication method for a specific data communication demand, as well as the appropriate fall-back channel.

Wi-Fi on board

In addition, the IProuter can also serve as an internet access point for passengers on board. This service provides the opportunity to utilise travel time in the best way possible.

For example, passengers can check emails or work online organising their tasks for the day while riding to work. This is a convincing benefit when it comes to persuading the public to switch from cars to taking public transport.

Source: INIT
For further information, visit booth E2 or market update 7 on Thursday 16 February 2012

WLg-SWITCH: High availability Ethernet switch with built-in WiFi for BUS application

Bus fleet operational costs optimisation as well as passenger safety and passenger services are 3 major issues for operators. As a result, the number of pieces of on-board electronic equipment has increased considerably over recent years (passenger information, passenger Internet, video recording, ticketing, operational data).

In order to connect all this equipment together and to connect it with the ground infrastructure network (data upload/download at the depot for example), operators need an on-board Ethernet switch as well as WiFi connectivity.

In response to this, ACKSYS offers a ***3-in-1 solution*** featuring a ***WiFi Access point or bridge, managed switch*** and ***POE injector.*** The solution minimises the number of products to be deployed and maintained. WLg-SWITCH addresses the tough environmental constraints inherent to transportation. The product is UTAC E2 certified, shock-proof and vibration-proof, and is installed in over 5,000 coach and buses.

A C-KEY (removable memory part) allows for quick and easy on-site replacement of the WLg-SWITCH unit, eliminating the need for extra configuration equipment and knowledge to reconfigure the replacement part. To increase reliability, WLg-SWITCH offers a dual input power supply and an alarm output (fault signalling).

Source: ACKSYS Communications & Systems
For further information, visit booth B11

Broadband radio system deployed at Munich metro

Already last year, Telefunken Racoms installed the first Radio Base Stations (RBS) of its TRainCom radio system in a newly constructed tunnel segment of the Munich metro line U3 between the stations "Moosach" and "Olympia Einkaufzentrum".

This initial track tunnel segment comprises 3 metro stations and one stabling yard at a length of approximately 2 km. This stabling yard and each tunnel track are covered by several Radio Base Stations (RBS) where the average distance between the RBS is about 450 metres, enabling seamless radio coverage. In the meantime, further track segments of the metro network have also been installed and the remaining sections will follow step by step.

The first new track segment was commissioned before its official inauguration in mid-December 2010. One part of the commissioning activities was the commissioning of the radio system, the integration of the radio system in the fixed data network and the integration of the sub systems for operational and passenger application. Among the relevant applications are passenger counting (APC), passenger entertainment, passenger information (PIS) and real-time CCTV systems.

After the complete installation, Stadtwerke Muenchen (SWM) will have a fully integrated TRainCom MT radio system, which enables seamless broadband radio data services between train and track across the entire Munich metro network and without any noticeable service disruption.

Starting with an intensive design phase at the beginning, the radio system is now helping to improve the operations of the metro and will further contribute here, while the next sections and trains are fitted. Beside the a.m. TRainCom MT system solution for typical metro/mass transit applications, similar integrated radio systems are also available for tram and bus applications.

Source: TELEFUNKEN Radio Communication Systems GmbH & Co. KG
For further information, visit booth B5

IVU. Systems for Vibrant Cities

Currently, the world's population is about 7 billion and constantly growing. By 2030, the UN estimates that 60% of the world's population will be city dwellers. Organising these expanding cities with millions of inhabitants involves bringing people safely and punctually to their destinations every day.

A reliable public transport system is therefore essential in order to relieve the burden on the road network and the environment. These tasks call for highly complex but flexible planning and control systems.

The products of the IVU.suite offered by IVU Traffic Technologies AG enable cities all over the world to develop a modern transport system within the shortest possible space of time. This has a positive impact on the quality of life, the cityscape and the environment. With the help of IVU systems, public transport is becoming more and more attractive, with the result that in future twice as many people will leave their cars at home, CO^2 emissions will be reduced and the general public transport market share will grow considerably.

One example of the successful implementation of modern software systems in pioneering public transport developments is the "Mio para todos" project carried out in the Colombian metropolis Santiago de Cali. In 2011 it received UITP's "Research and Knowledge" regional award. The jury regarded "Mio para todos" as a model for the sustainable development of a public transport network.

In 2009 the UTR&T consortium, which provides the platform for the operation of public transport in Cali, had placed an order with IVU Traffic Technologies AG for the delivery of systems for the planning, scheduling and operational control of the fleet of some 1,000 buses, as well as fitting these with on-board computers and providing the system for passenger information at stops and in buses. With its Mio project, UTR&T has shown how rapidly major improvements can be made to the mobility and infrastructure in a major city, trusting in the use of high-quality engineering software made in Germany.

Source: IVU Traffic Technologies AG
For further information, visit booth G4

IP network for refit of trains - an excellent platform for staying competitive and cutting operating costs

New IP network technology in Munich's public transport service

Stadtwerke München GmbH/Münchner Verkehrsgesellschaft (MVG) have gone for a comprehensive mobile video monitoring system combined with an IP network covering all of its train units. In the 197 underground trains and 88 tramcar sets, it has now installed a total of 2,320 IP cameras, 285 video network recorders with a separate storage medium (NAS) and 1,249 PoE switches. For future-proof purposes, the cabling has been redesigned in the rolling stock. The basic concept is for the obsolete analogue cabling to be replaced. IP technology with network nodes has been prescribed for the individual carriages based on the Ethernet standard. Having large volumes of data being carried over the couplings called for an Ethernet connection on Powerline technology. Another stipulation was that cabling had to be provided in such a way that when it comes to linking in new technology (cameras, displays, etc.) there is no need for new cabling running over couplings or carriage crossover points. Switches at appropriate points on each carriage section are designed for the required connection.
The contract for the complete IP network including the video application was put out to tender throughout Europe and was awarded to Indanet AG, the system supplier based in the Bavarian capital. "One specific requirement was that the complete solution should run over Ethernet and as such be able to be integrated into the existing Ethernet system in the train and tram units", explains Kurt Stern, Head of Transport Telematics with Stadtwerke München GmbH / MVG.

S-Bahn Dresden modernising double-decker fleet

Dresden's S-Bahn suburban light railway is also relying on a universal WTB/Ethernet platform in upgrading its existing fleet of air-conditioned, double-decker carriages which have been designed to offer easy access to mobility-reduced passengers. Munich-based Indanet AG was awarded the contract for the supply of the video monitoring system as a complete IP solution. Apart from digital network recorders and separate NAS storage media, the Indanet concept displays a quite specific feature: the digital network recorder has an integrated diagnostic display used to monitor all of the applications connected to the network for faults. This includes all of the video components (cameras, NAS, NVR), the passenger counting system and the network manager with associated IP switches and the vehicle information system. The upgrade will be completed by the end of 2011.

Source: Indanet AG
For further information, visit booth A8

These "c-cars" belong to the 197 Munich metro trains being refitted with IP network applications by Indanet.

CNA takes the lead on Java Card

The successful spread of Calypso technology across the world is now prompting the **Calypso Networks Association** to foster new technological alternatives to the classic native transport chip mask, whilst decreasing the cost of the overall system.
For Calypso, the key to successful development is the ability to offer a standardised and interoperable transport application, meeting the needs of transport operators all over the world, irrespective of what medium they run on.
Assuming that it is not only the technology, but also and primarily a market adoption, Java Card and GlobalPlatform are the perfect tandem solution, being the most widely used open system solution.

Therefore, while a universal reference (such as ISO / EMVco) may 'Globally' ensure real worldwide interoperability of communication between all portable objects and infrastructure, the integrity of transport products should be ensured

'Locally' by downloading the local transport application (IFM level 1).
CNA can therefore ensure full interoperability of Calypso applications allowed by a Calypso applet downloaded onto the maximum amount of Java Card platforms.

CNA has already pushed forward certification processes at different functional levels (level 1, application, security, etc.), but in the end, due to the number of actors involved in the chain of Over The Air application downloading, having a unique Calypso applet proved to be the best guarantee for true interoperability. Consequently, CNA decided to select one "Reference Calypso applet". For obvious reasons of fairness and to avoid industrial and commercial discrimination, the "Reference Calypso applet" cannot be the private property of one industrialist, so CNA has full ownership of its applet and is ready to offer it free of charge to every transport operator needing it. CNA is responsible for its distribution, maintenance and management.

calypso Networks Association

Source:
CALYPSO NETWORKS ASSOCIATION
For further information, visit booth G13

Web-based project management with Projektron BCS

Projektron BCS (Business Coordination Software) is web-based project management software with which you can plan, calculate, coordinate, evaluate and invoice your projects. All the requirements of a project-driven organisation are supported.

The software makes the ongoing control of effort and material costs possible. Project risks are reduced, projects can be compared, and multi-project management and project portfolio management are supported.

Projektron BCS is completely web-based software that can be used in a web browser. Working without local installation Projektron BCS works for all project participants independent of their operating system. All users have different views on the projects, proportionate to their needs. The role definition is flexible and allows team-oriented workflows. Its flexibility meets individual requirements for process control and quality control in every company.

The software is simple to use and can be individually configured. Modern AJAX technology supports users, allowing them to work ergonomically. Projektron BCS cuts costs, helps in meeting deadlines and increases the efficiency of your projects.

Companies from every business sector and public-sector bodies can successfully execute their projects using Projektron BCS.

Features: Multi-Project Management, Project Planning, Time Re-cording, Project Controlling, Resource Management, Document Management, Invoicing, Reporting, Contact and Contract Management, Leave Management, Allowances Management, Support System and Software Development using Scrum Technology: Scalable 3-layer architecture, Java software, Entirely web-based, Platform-independent

projektron

Source: Projektron GmbH
For further information, visit booth D13

Renowned market leader in the field of incident management solutions in Germany

Increase your company's efficiency and alleviate the daily workflow with innovative solutions by Nettropolis.
Since our founding in 1998 in Bruchsal, we have specialised in providing customised IT solutions to meet the specific requirements of the public transport industry. Our modular, scalable and multi-user application, the ***Nettro®IGP*** product family, currently consists of 13 different modules and is based on the latest Microsoft data warehouse technologies. We use our extensive know-how and experience in this sector to offer solutions for integrated enterprise information management, incident management, quality assurance management, analysis and reporting tools, and infrastructure data management, and additionally provide various other customised modules, functionalities and interfaces.
The spotlight of this year's IT-TRANS Conference, the implementation of social media from perspective, coincides with our latest development solutions. On Thursday 16 February 2012, in the Market Update section, we will give a short overview of our product suite with a focus on increases in public safety and permanent cost reduction with ***Nettro®IGP***, and as a special feature, we will present the implementation of social media interfaces within our ***Nettro®IGP*** product family.
The steadily growing trend of rapid information exchange via smartphones and social media channels has emphasized various benefits of such tools for the public transport industry, especially when it comes to reaching a wider audience, enhancing customer service and reacting faster to the ever-growing demands and challenges of communication strategies. With our new content management system ***Nettro®IGP*** you will be able to fully automate your communication processes by dynamically combining the information from both internal and external sources and distributing it via social media channels, smartphones, dynamic passenger information media or standard print and communication tools.

During our first user conference, which took place in October in Bruchsal and Mannheim, our latest module ***Nettro®IGP*** was introduced to the conference participants. ***Nettro®IGP*** is the first application of this sort that displays and compares operational quality in accordance with the **DIN EN 13816** European norm which regulates the quality attributes for public transport companies and defines quality criteria to help improve customer service.

Source: Nettropolis AG
For further information, visit booth E7

Nettropolis

PSI Transcom GmbH with trendsetting solutions for Depot Management and Automatic Vehicle Location (AVM)

Once again PSI Transcom will present its solutions for smart mobility in public transport at IT-TRANS in Karlsruhe.

The powerful PSI depot management system supports and optimises all business processes within vehicle depots of public transport companies. It can easily be configured to manage varying numbers of vehicles, personnel and depots. The core functions include automatic or semi-automatic assignment of vehicles to duties/blocks and the automated allocation of parking positions, for both rail vehicles and buses. The PSI depot management system contains the optimisation module Qualicision® for automatic parking place positions. The calculation engine used for the optimisation has already been successfully implemented for numerous PSI customers in other industrial sectors.
Modern RFID technology allows the system to locate vehicles within the depot area, whether entering, being serviced or parking in the depot.
The PSI system improves efficiency and streamlines processes within the depot which results in tangible cost reductions.
The PSI AVM System combines Automatic Vehicle Management and Location which efficiently schedules vehicles and simplifies planning processes. Operations are constantly monitored in real time and prompt intervention is possible when problems arise such as service disruptions or schedule adherence issues. Passengers are provided with up to the minute information on service changes via on-vehicle displays, at stops or on mobile devices. This enhances the passenger experience, boosts operational efficiency and generally improves the attractiveness of public transport.

PSI has been active in developing public transportation solutions for more than 22 years. The PSI traffic platform has been employed in a wide range of different solutions for both large-scale urban transit companies as well as regional operators.

Source: PSI Transcom GmbH
For further information,
visit booth G9

MobiGuider_ITS the highway to Public Transport of the future

Public transport in the future will have to be economically justifiable intelligent transport systems with sophisticated information and communications technology. The system will provide a wide range of flexible and open functionalities to meet rapidly evolving needs and technologies.

They have to be able to connect to, and interact with, applications and sub-systems from specialised vendors for parts of the overall solution. And to be cost effective and efficient, standards for data exchange and interfacing are crucial and have to be integrated into the total system infrastructure.

MobiGuider: THE SOLUTION

Therefore, Prodata Mobility Systems developed "MobiGuider", an end-to-end mobile software platform which is a fully open system that integrates AFC, ITS and RTPI in a flexible service-oriented architecture. The integration of this entire functionality into one common platform provides flexibility, convenience, consistency, efficiency, and obvious economic benefits.

MobiGuider's open Architecture is compliant with multiple industry standards, which makes it interoperable with external systems (planning, accounting, reporting, the web).

The on-board computer, the heart of the Prodata mobile system, is the main control unit of the vehicle. In addition to continuously communicating its GPS-detected location to the central control centre, it monitors and controls the vehicle equipment, as well as the vehicle operation. It assists the driver in his or her daily routine by providing continuous information about trip punctuality and driving style. Some of the other functionalities are automatic stop and off-route detection, and sending and receiving text messages as well as voice calls to and from the traffic control centre.

The on-board computer also drives audio and visual equipment, such as stop-announcing systems, displays and infotainment screens, and integrates surveillance equipment. Moreover, its variety of communication technologies make it the ultimate communication gateway and enable it to handle traffic-light priority signals.

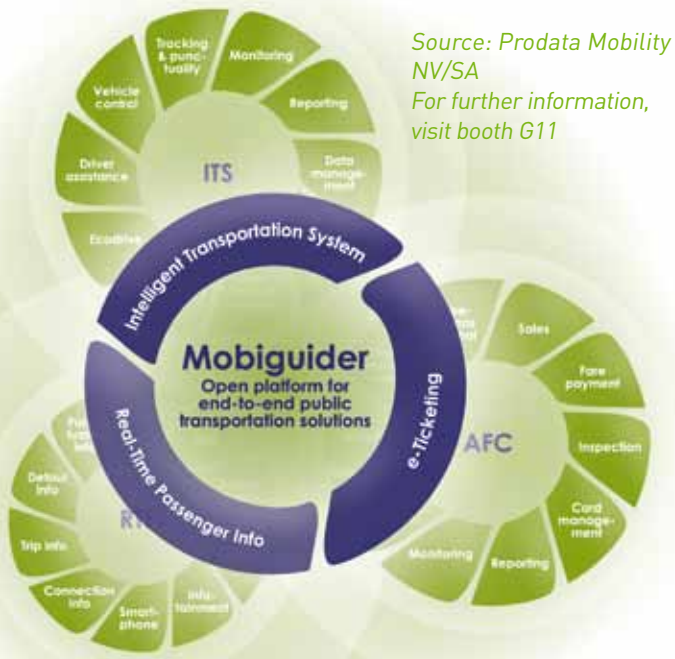
From the MobiGuider traffic control centre, the brain of the central traffic-control system, detours can be organised and traffic flow regulated.

The traveller is kept continuously informed on the board displays or via the central traffic control centre at stops and stations and over the web. The impact of delays on the traveller's continued journey can be presented along with connection times and alternative routes and travel modes, and their advantages and disadvantages. Incidents can be reported, and corrective actions immediately taken, all of which are communicated to both the drivers and the passengers.

Modern ITS is a reality with MobiGuider

So it's win-win all around: the operators receive a much more efficient system, which also benefits the environment, and the passengers receive increased comfort, safety and convenience. And MobiGuider is already up and running in Amsterdam, Eindhoven, Maastricht and elsewhere in The Netherlands and will soon be implemented in Belgium and elsewhere.

Source: Prodata Mobility Systems NV/SA
For further information,
visit booth G11



Databay AG publishes "FAPLA - Open Source Journey Planner"

In 2010, Aachener Verkehrsverbund GmbH (AVV) decided to relaunch its journey planner. Databay AG developed this completely new system as an individual software project and published the result as "FAPLA open source".

As open source software (OSS), FAPLA is available without license fees. FAPLA is therefore ideal software for use by companies operating in the field of public transport and that are often financed by public money. FAPLA offers many different functions, such as "search by map", "fault-tolerant search", "fuzzy-search", "barrier-free version" and "event data management", and stands out with its advanced user interface. Furthermore, it offers many interfaces for connections to third-party software such as Handyticket, Car2gether or the DELFI-Server for journey planning across Germany. At the moment we are working on apps for different mobile operating systems.

An excellent example of the success of open source software is the web-based learning management system (LMS) ILIAS. Initially started at the University of Cologne, today ILIAS is one of the most widely deployed LMSs, being used by universities, public institutions and private companies, regardless of their line of business. It supports the process of knowledge transfer by Web Based Training as well as testing, controlling and communication (chat, internal mail, forum) using different on-board-tools. E-Learning is an efficient way of spreading knowledge to people. Databay AG has been a partner of the ILIAS open source project since 2002 and provides Full Services depending on the ILIAS implementation. Databay AG looks forward to seeing you at IT-TRANS 2012!

DATAbay

Source: Databay AG
For further information,
visit booth B12

Innovative product: PlanOpt

GIRO will be showcasing the 2012 version of its HASTUS software solution at this year's IT-TRANS event. One of the latest innovations developed by GIRO is the **PlanOpt** algorithm – part of the HASTUS suite of modules dedicated to operations – which is an innovative tool designed to optimise and automate the employee work assignment process.

PlanOpt is a powerful optimiser capable of efficiently generating optimal personalised work assignment solutions that not only take into account employee preferences but also respect company objectives and work rules. As such, **PlanOpt** has become an increasingly vital tool for operating contexts where employees demand more flexible schedules than can be achieved with traditional rostering approaches.

Optimised daily work assignment helps equalise employee work hours while taking into account employee qualifications and certain criteria such as the total number of hours worked, and the relative desirability of specific workdays, weekdays and weekends, peak and off-peak hours. This ensures that company objectives are met and collective agreements are respected, while at the same time providing schedules that are in line with employees' own personal constraints. Providing employees with more flexibility contributes to increased satisfaction and reduced overall absenteeism and staff turnover.

PlanOpt also helps minimise variance in average employee work time, which in turn reduces costs related to guaranteed time and resulting overtime hours.

On the technical side, **PlanOpt** inherits HASTUS' advanced object-based rules engine and configuration tools, providing users with an unequalled level of flexibility compared to traditional rules-tables approaches and systems with rigid data models. Using these features, GIRO clients can easily model new rules and constraints for various purposes, such as validating the impact of proposed changes during negotiations of a new collective agreement.

GIRO

Source: GIRO
For further information,
visit booth H2

PTV: VISUM 12.0

VISUM is a comprehensive, flexible software system for transportation planning, travel demand modelling and network data management. VISUM 12.0 impresses through its optimised workflow and accelerated procedures. One of the highlights is the extended scenario manager.

The scenario management has been delivered in two stages. In VISUM 11.5, new functionality was introduced to support data management and analysis of different scenarios within a project. VISUM 12.0 builds on these components and provides an integrated tool that organises variants of a model (related to input data for both supply and demand) in a non-redundant way and allows users to define scenarios as combinations of model blocks buildings on each other. The functionality permits batch runs of the model for some or all of its defined scenarios and supports scenario comparison by cross-tabulating selected network-wide measures of effectiveness.

Another highlight: VISUM 12 now supports the import of railML®, the standard XML exchange format for railway data. The railML® interface imports only some portions of the railML® data which are relevant to strategic modelling in VISUM. Timetable data and basic information on vehicle usage are imported into an existing PuT network by matching the corresponding elements (stops, etc.) through their IDs.

Furthermore, the HAFAS import has been extended to support destination coaches, marshalled from one train to another. When destination coaches are present in the HAFAS files, they are represented in the VISUM data model as additional vehicle journeys which are coupled with the vehicle journeys representing the multiple trains to which the destination coach is attached on its journey. Besides this, the import of couplings has been improved in order to be more fault-tolerant and reduce failures.

Source: PTV AG
For further information, visit booth D1

PTV Planung Transport Verkehr AG

RADCOM - Keep your BUSiness on track!

RADCOM provides integrated systems for monitoring, dispatching, e-ticketing and traffic control for transport companies, enabling: fleet management, ticketing, passenger information, video monitoring and automatic passenger counting processes.
RADCOM develops complex platforms (specific equipment, backoffice software applications), customises its products and integrates third party components, hosting and operating systems according to client needs.

Products

The Contactless Validator - E-CHECK - represents **RADCOM**'s latest innovative product, with a modern and ergonomic design and a 5.6 inch LCD and anti-vandal touch screen. The performance of the device is sustained by a 32-bit ARM11 processor, 128MB FLASH and SRAM memory. ***E-CHECK*** is produced in three versions: **Standard** with RFID card reader, and **Dual** with RFID card reader and thermal printer or with RFID card reader and barcode reader. **RADCOM *e-Ticketing Solution*** integrates the above validators together with our software platform allowing usage of RFID cards, standard paper tickets, barcode paper tickets, and mobile phone barcode messages.
The on-board computer - *E-TRACK* - is a sophisticated on-board computer device equipped with a GPS/GPRS and WIFI, which integrates a 32-bit ARM11 processor and presents multiple interfaces: RS485/422, RS232, CAN, USB, Ethernet, Card Reader (RFID), SD Card, and GPIO, and is able to collect and process traffic and status vehicle parameters. **RADCOM** fleet management solution uses **E-TRACK** to determine geographical position and travelling parameters, to collect and display status parameters, to communicate text and vocal messages, to manage the inside and outside vehicle information system, and to control validators and passenger counting systems.

LED indoor and outdoor information panels have customisable row number and length, wide view angle, low power consumption and different communication abilities such as GPRS, RS485/422 and RS232. **RADCOM**'s range of LED panels is integrated into fleet management solutions such as: **vehicle destination signs, information displays for passengers at stops and information displays inside vehicles.**

RADCOM

Source: RADCOM
For further information, visit booth A10

Reference Platform: Data exchange in assured quality

Nowadays, transport providers are increasingly confronted with the challenge of exchanging more and more data with other data providers, service providers and, reinforced by recent Open Government Initiatives, also the general public. The **Reference Platform by Fluidtime® Data Services GmbH**, Vienna, Austria, which will be presented to the general public at IT-TRANS for the first time, allows for setting up this exchange in an efficient, secure and comprehensible manner. The following components are used:

The **Reference Server** aggregates internal interfaces and makes their services available to external users via a central access point, without revealing internal matters. This Single Point of Access permits comprehensive administration, logging and analysis of all incoming and outgoing data traffic. Caching mechanisms improve the services' performance, while reducing the workload of production systems at the same time. In addition, to prevent unauthorised access, the user administration included allows users to define, configure and analyse available services individually for each user group. As a result, the quality of all data provided and received is such that the data is comprehensible. Furthermore, extension modules provide additional functionality like automated testing or conversion of data formats.

The **Reference Client** acts as a mobile interface to the provided services at the end of the information chain. It also permits access to the analysis provided by the Reference Server on site. In doing so, the mobile device can act as a technical benchmark in terms of data management and information display (e.g. in terms of accuracy and latency), as a reference for the HMI Design, and as a tool for integration and validation tests.

This approach ensures the efficient exchange, quality and traceability of data.

The **Reference Platform by Fluidtime® Data Services GmbH** is already used in several national and international projects. The modular design allows individual adjustments and extensions, thus ensuring that the range of possible applications will increase even further in the future.

Source: Fluidtime Data Services GmbH
For further information, visit booth F8

Mica: Integrated Management Platform

Mica is a state-of-the-art system solution for controlling and managing communications and security infrastructures of railways, public transportation, motorways, utilities and other authorities. The modular information, communications and application platform (Mica) - developed by telent GmbH - consolidates all security and communications systems under one integrated umbrella management system. Existing and new communication and control equipment and facilities, such as video cameras, emergency telephones, loudspeakers and passenger information displays, as well as alarm systems (for fire, intrusion, lifts, escalators, etc.) are integrated via standard interfaces in a single IP network. The overall system can be expanded and scaled as required, enabling further locations and applications to be incorporated.

Mica elaborates workflows thoroughly and supports them with predefined and automated processes. The platform improves operational and security-related processes and enables passengers, service and security staff or emergency teams to be informed and coordinated immediately. Mica offers maximum flexibility and scalability for current and future requirements.

The first implementation of the integrated management platform Mica in Germany was with the German Railways at Munich Central Station in 2009 followed by the modernisation of the command and control centre of the Central Station at Leipzig.
telent GmbH - a euromicron Group company - is a vendor-independent provider of solutions relating to networks and systems for enterprise and security-related communication. The company supports its customers in design, planning, installation, integration, operation and maintenance, as well as with further services. Its focus is on IP technology for enterprise networks, network and asset management and solutions for PMR networks.

telent has highly qualified employees at its sites in Backnang (headquarters), Teltow and Radeberg and at a further ten branch offices in Germany. Its customers are public authorities and enterprises, in particular from the rail, transportation, energy, IT and telecommunications industries.

Source: telent GmbH - ein Unternehmen der euromicron Gruppe
For further information, visit booth C15

Reports and Analysis - What Passenger Counting Data Can Do For You

DILAX's powerful data management software DavisWeb Mobile Suite will be presented in its latest version at IT-TRANS 2012. Find out more about the most recent developments:

- DavisWeb Mobile goes modular - thanks to a new concept DILAX can now provide a cost-efficient starter solution with basic reports about passenger counting data. The full DavisWeb Mobile Suite offers powerful additional modules to fulfil the highest requirements.

- Diagnostic functions for transport operators - monitor flows of passenger counting data, improve data quality and provide further information to optimise your scheduling system.

- Live view - enables transport operators to see real-time information from vehicles. This feature allows for fast reactions and service improvements such as implementing additional transport services.

DavisWeb Mobile is a web-based software suite for extensive analysis of automatic passenger counting data. It ensures ease-of-display and evaluation of passenger counting data measured and recorded by the passenger counting system in a vehicle. For planning and optimisation, transport operators get valuable reports on actual passenger interchanges - throughout their entire transport network. The analysis of automatic counting data can be provided as software or as a full service.

Source: DILAX Intelcom GmbH
For further information, visit booth D11

Moviken presents NAVIBUS - the Passenger Navigation System

The Moviken Group has used its unique combination of skills and experience in the areas of on-board electronic systems and specialised cartographic presentation to develop a highly innovative on-board passenger information system for public transport vehicles - NAVIBUS. The system will be exhibited at IT-TRANS 2012.

NAVIBUS is a navigation system for passengers. It is designed to answer the questions which often prevent passengers from taking a bus:

- How do I know I'm taking the right bus?
- Once I'm on, how will I know when to get off?
- Where do I go when I get off the bus?

In addition to the information normally provided to the traveller (next stop, time of day, destination...) the NAVIBUS screens present:

- A line diagram which is interactive and multi-scale, with a display sequencing determined by the position of the vehicle in relation to the stops along the route, providing information to embarking, continuing and disembarking passengers as they need it;

- A cartographic response to the principal queries of the passenger: representation of position on the line diagram, the next stops / stations with connecting services to be found at them, a map of the area and connections for the next stop / station, estimated time to arrive at the next stop(s), information about connecting services and points of interest (commercial, cultural or municipal establishments);

- An information service available to the network operator for the dissemination of messages about service disruptions, events, local information, advertising...).

Physically, the equipment is designed to fit the space constraints and withstand the rigours of installation in public transport vehicles. This navigation application represents a leap forward in modernity which makes public transport the equal of the private car in the use of navigation technologies and answers a pressing need for the traveller.

Source: Moviken SA
For further information, visit booth B10

Moviken presents NAVIBUS the Passenger Navigation System

isPIN - Dynamic Passenger Information System

ifak system GmbH offers a modular and dynamic passenger information system that can be fitted to meet the needs of any public transportation company. In areas of low population density in particular, cost-efficiency and flexibility are decisive factors for the operation of dynamic passenger information systems.

The base module is equipped with a microcontroller and a GPRS radio data module. According to the individual use case, this basic module can be extended by further components. An add-on of the user interface module with buttons and a display connects the passenger information device. To also reach visually impaired people, the information device is supplemented with speech output and Braille.

In order to calculate departure times dynamically, it is necessary to locate the vehicles involved. For this purpose, the basic module of the system can be extended by a GPS receiver. This so-called On-Board-Unit can also capture extra information from the internal vehicle data bus, such as the ID of the vehicle and the current route. The captured data is transmitted to a device server via GPRS in any given interval. The information about the vehicle's current position can be used to predict the time of arrival at the next stop. If any deviations to the static timetable occur, the predicted arrival time will be transmitted to the passenger information devices at the corresponding stops.

The passenger information device can be supplied with solar panels. Due to this and the use of the GSM network for radio data communication, there is no need for a special infrastructure. This allows for the cost-effective and low-maintenance operation of the passenger information device.

Source: ifak system GmbH
For further information, visit booth G15

Netherlands Railways' staff choose Handheld's rugged Nautiz PDA for "next generation" ticket control and travel information

Netherlands Railways (Nederlandse Spoorwegen, NS) handles 1.1 million passengers every day, with 4,800 scheduled daily trains. So when NS decided to upgrade the handheld computers for its train staff, who would have been better to ask than the people who actually meet and interact with the million or more customers on a daily basis: the company's thousands of conductors.

NS earlier this year invited the world's suppliers of handheld devices to submit offers for more than 10,000 rugged handhelds for all its first-line personnel for ticket control and travel information. This tender was the largest tender in the world for rugged PDAs in the public transportation sector during the year, and one of the largest ever projects in the world for rugged handheld devices.

After a thorough and meticulous selection process, one winner emerged: Handheld Group, the fastest growing company in the industry. Handheld was awarded the contract to supply NS with more than 10,000 rugged Nautiz handhelds, 6,000 of which would be the Nautiz eTicket Pro, Handheld's versatile PDA specially designed for payment transactions and validations.

The final round of the tender consisted of NS first-line personnel evaluating the devices that had earlier been selected from the contenders. Once in the hands of the train staff, the Nautiz was an overwhelming choice for its excellent ergonomics, user friendliness and functionality.

"The Nautiz eTicket Pro from Handheld was selected by the personnel who will actually be using the device, after we determined it met the requirements set in the tender," said Jasper van Zanten of Netherlands Railways. "Consulting the end users during the tender process is a pro-active way to create a solid base of user acceptance."

Handheld was recently awarded contracts to supply the Nautiz eTicket Pro to the City of Montreal and the City of Helsinki, to be used for ticket control and ticket sales.

Source: Handheld
For further information, visit booth G6

Sigtec look to Europe for Expansion

Sigtec is a major international leader in providing Intelligent Transport Systems (ITS) for all forms of public transport.

These include:

- Bus, Rail, Light Rail, Tram and Ferry Services - using the GPS-based RAPID™ Real-Time Passenger Information system.
- Taxi and Private Car Hire Services - Dispatch, Private Car Hire and Fleet Management.
- Emergency Services - Fire Departments and Ambulance Services.
- Law Enforcement - Local and Federal Police.
- Government - Large government implementations and School Zone safety solution.

Transport Solutions Across the Globe

Our international presence includes over 50,000 ITS devices, installed for over 100 clients in 10 countries, including the USA, UK, Australia and New Zealand, and others in South East Asia, the Middle East and the European Union. This global reach has helped us develop a deep understanding of the needs of our customers and users across a wide variety of cultures.

Specialised Transport Technologies

We specialise in cutting-edge GPS vehicle tracking, wireless dispatch and real-time reporting and information collation - all of which helps make transportation users' travel smoother and safer.
What sets us apart from our competitors is that we don't sell a one-size-fits-all, 'out-of-the-box' solution - but rather customised, unique systems that are built to the specific needs of your organisation, your users and your region.

SmartBus and BusTracker, Melbourne, Australia

The SmartBus and BusTracker Projects provide Automatic Vehicle Management, Real-Time Passenger Information and Traffic Light Priority across the entire Bus Fleet of Melbourne, Australia's second largest city. The system integrates with Rail and Vehicle services for intermodal coordination at interchanges.

SmartBus facts and figures: total buses and vehicles (1,700); information Displays (400); routes (350); intersections (1,000) and population served (4 million)

Lodz Vehicle Priority and Passenger Information System, Poland

The Lodz Vehicle PPIS provides Traffic Light Priority for Vehicles and Real-Time Passenger Information for the residents of Poland's second largest city, Lodz.

Lodz Facts and Figures: total vehicles (200); information Displays (100); routes (5); intersections (40) and population served (1 million)

Source: Sigtec Pty Ltd
For further information, visit booth F5

Mobile Ticketing and mobile passenger navigation

The agent factory GmbH from Jena, Germany, is an expert for mobile applications in Public Transport. At the IT-TRANS the company will present its unique all-in-one passenger information and mobile ticketing solution easy.GO and will offer a first glimpse of the brand new and innovative mobile passenger navigation system SMART-WAY.

easy.GO* provides passengers with all the information needed for using public transport on a device that nearly everyone has in their pockets: the mobile phone.

- Easy access to timetable information and expected departure times
- Use of a trip planner which finds the fastest way from a given position to any destination address or station by means of public transport
- Regional service information and network maps
- Opportunity to instantly buy tickets by entering your Phone number just once and an individual password for billing via the mobile Phone bill.

A mobile passenger navigation system will be developed together with 7 European partners in the SMART-WAY project. It is actually demonstrated in the cities of Torino and Dresden. By using Galileo or GPS, SMART-WAY transfers the comfort of known car-navigation systems to public transport. During the trip, every subsequent station will be announced. Furthermore, the users' attention will be drawn to points, where interaction is needed, by vibration and illumination displays. Besides textual information, a visual map depicting the route will be offered. The most innovative part of this project will be the customer's unrestricted freedom while using the public transportation network, as the navigation adapts to any circumstances or detours the customers might want to take. A change or deviation from the original route is immediately detected and a new route is calculated.

**currently available for the German public transport provider MDV (Mitteldeutscher Verkehrsverbund)*

Source: easy.GO
A product of the agent factory GmbH
For further information, visit booth C13

IT-TRANS 2012: Experience Trapeze innovations first-hand

Neuhausen am Rheinfall, 16 November 2011 – At the upcoming IT-TRANS event – the international conference and exhibition on IT solutions for public transport – to be held in Karlsruhe, Hall 1, Stand C2 from 15 to 17 February 2012, Trapeze will present innovative solutions in the fields of planning systems, operations control, vehicle equipment and passenger information. As a company that operates on a global scale, Trapeze develops complete solutions for public and private transport companies around the globe. Its innovative, high quality solutions and products optimise the services offered by transport agencies as well as the control of their operations.

At IT-TRANS, Trapeze will show solutions for meeting tomorrow's challenges. In addition to offering insights into the areas of planning and operations control technology, passenger information, vehicle equipment and services, the company will demonstrate a number of highlights from its development department. **At its stand and in various interesting papers, Trapeze will present trend-setting solutions for dispatchers, drivers and passengers alike.** Visitors will experience live demonstrations and can expect to see numerous exciting innovations of Trapeze.

Decades of experience and unsurpassed specialist capabilities make Trapeze the ideal partner for all projects in the field of urban passenger transport. With its international presence, and working together closely with its customers, the company develops and produces top quality system solutions for efficient fleet management in the field of public transport. Consistent system solutions reduce bus and railway trips, increase timetable adherence, enhance the precision of transfers, and provide permanently available passenger information. Trapeze integrates new components as well as those already in place at customers' sites in trend-setting complete systems.

Source: Trapeze Switzerland GmbH
For further information, visit booth C2

Collis assists Public Transport Operators with setting up Automatic Fare Collection

Many cities, regions and countries have started introducing contactless systems for fare collection. Collis assists Public Transport Operators with setting up Automatic Fare Collection (AFC) infrastructure and provides tools for certification, integration and interoperability testing.

We are currently playing a role in the implementation of AFC/e-Ticketing in the Netherlands (TLS), Dubai (United Arab Emirates – RTA) and New Zealand (NZTA). We help define the scheme (architecture), implement it, test it and get it working. Collis also developed test tools for VDV-KA (in collaboration with Cetecom, which now runs the VDV-KA certification lab). Finally, Collis has sound knowledge of all standards connected with AFC.

Collis is also an expert in NFC technology. We help banks and public transport companies to develop NFC applications for Mobile Payments and Mobile Ticketing.

At our stand, we can show you our latest test tools (test cards, devices and transaction processing systems). We can also show you examples of our work as trusted advisor for the schemes we have worked on and how we can be your trusted advisor in the world of Automatic Fare Collection, through designing the architecture, vendor selection, testing and sharing NFC/mobile knowledge. We look forward to meeting you at IT-TRANS 2012!

Collis

Source: Collis
For further information, visit booth E6

Very Fast Trip... by Thales

Cities are evolving fast – and they're doing everything they can to make public transport safe, efficient and attractive. Interconnected urban transport systems, including trains, metros, buses and ferries, open up a world of new possibilities to passengers. Find out about the latest innovations from Thales with VeryFastTrip, the new app for iPad.

Contactless technology for automatic fare collection

With 40 years of leadership in the market, Thales has a unique set of credentials in fare collection management systems.

In the Netherlands, riders travel by train, bus, tram or metro anywhere in the country with a single contactless card. Thales designed, built and delivered the system, and is now operating it on a daily basis. Meanwhile in Dubai, the new metro system – considered the most high-tech transport network in the world – opened its doors recently, with a fully contactless fare collection system, including a park & ride capability, implemented by Thales.

Thales is a pioneer in the use of contactless technology in fare collection systems, providing quick and secure revenue management for operators and seamless travel for passengers.

Onboard video solution for public transport

Thales has developed an advanced onboard video solution for urban transport and mainline rail systems. Suitable for both new-build and existing vehicle fleets, the solution enhances safety and security for people and property, improves passenger service and brings down operating costs by preventing vandalism and helping to optimise maintenance.

With its open hardware and software architecture, the Thales onboard video solution is reliable, easy to use and fully scalable, providing a sustainable, long-term response to many of the challenges faced by transport operators today.

Source: Thales
For further information, visit booth A6

©Bernard ROUSSEAU

Successful deployment of mobile ticket solutions in nordic countries

In Denmark and Sweden, 65,000 travellers each day use their mobile phone to pay for tickets on busses, trains and the metro. Since 2008, Copenhagen and Stockholm have seen a dramatic increase in travellers choosing mobile tickets as the quick and easy successor to old-fashion paper tickets.

In just a few years, Unwire has made its mark as one of the most innovative suppliers of mobile ticketing technologies. Partnering with public transportation giants Arriva, DSB and Storstockholms Lokaltrafik, Unwire handles the payment and validation of mobile tickets worth over Đ70 million a year.

1st class solution
In Denmark, a joint venture of train, bus and metro companies recently introduced next generation mobile tickets based on Unwire's platform. Using mobile web technologies, the solution creates an easily recognisable and user-friendly interface on mobile phones. Furthermore, a new range of ticket products has successfully stimulated user adoption.

Easy access to ticket purchase
Niklas Marschall, Sales Director at DSB, is convinced the new ticket system takes mobile payment to a new level: "Our mobile ticket site uses a route search and payment system similar to traditional websites. This means we deliver an extremely user-friendly service and make mobile tickets accessible to almost any traveller".

Emerging mobile technologies
The Unwire Mobile Ticket platform is a complete, secure and highly scalable turn-key solution which handles all aspects of selling and issuing tickets through the mobile phone. Whether the end users interact through smartphone apps, mobile web, SMS or NFC-enabled phones, the solution effectively supports ticket ordering, payment, delivery and validation processes.

About Unwire: Unwire is a leading provider of mobile ticket solutions. We leverage mobile technologies to create business opportunities for our customers.

Source: Unwire
For further information, visit booth F9

TICKeos - Your Public Transport Suite for your Online and Mobile Sales Activities

TICKeos was developed with the special requirements of transportation companies in mind. As the leading online and mobile sales solution, TICKeos is used by many public transport companies in Germany and Austria.

TICKeos is an online-based system with optional modules, such as an online shop with payment options and different ticket delivery options, such as online ticket, postage or mobile delivery.

For subscription tickets and e-ticketing services, an online platform is available and interacts directly with different backend sales systems.

TICKeos is focused on three main areas within the entire ticketing process: journey planning, ticket sales and ticket inspections.

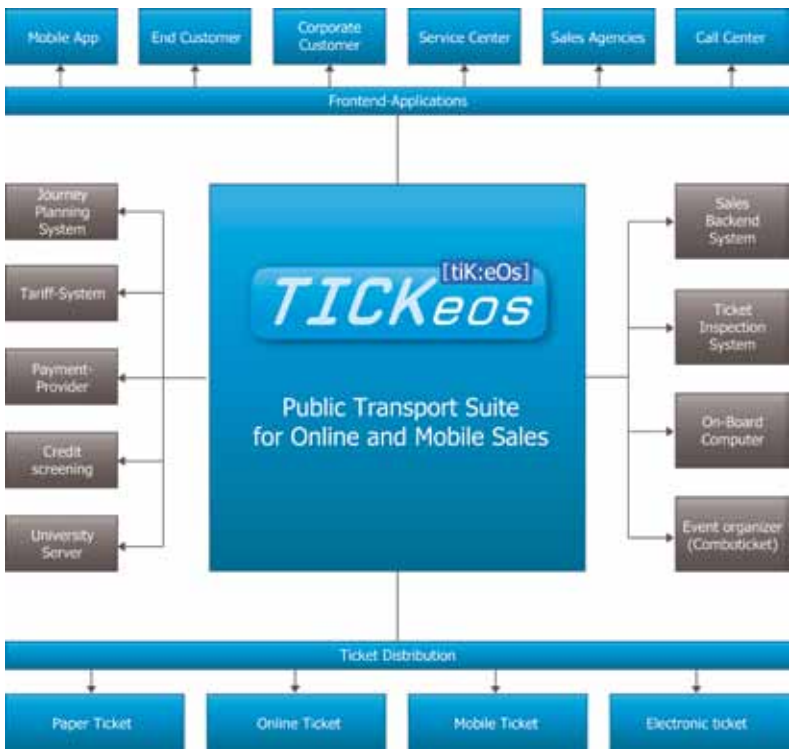
just one single user account, whether buying via a mobile or online, and irrespective of how he/she wants to receive the ticket.

Mobile and print tickets also include barcodes with UIC 918 or the new VDV standard.

For E-Ticketing, TICKeos provides a software module, allowing customers to add electronic tickets directly onto their travel card with a simple USB plugged card reader.

For ticket inspections, a smartphone application is used to read barcode-based tickets in both offline and online mode to check ticket validity.

TICKeos also provides a variety of different solutions for ticket shops and travel agencies.



For journey planning, TICKeos provides mobile solutions for smartphones (Android, iPhone and others) and integrated online shop solutions with interfaces to external journey planning engines or timetable and tariff information systems.

The ticket sale process includes everything that public transport companies need. A simple online shop provides tickets for printing at home, postal delivery or even electronic delivery to a smartphone. Tickets can be bought either online or via a mobile using smartphone applications. The customer needs

Source: EOS Uptrade GmbH
For further information, visit booth E8

Card4B Systems, Virtual Ticketing in a Box

Card4B was founded by senior experts with more than 15 years of experience working with transport operators and authorities in the development of interoperable multi-platform contactless ticketing and multi-services (e.g. parking, tolls, tourism, schools, taxis, car and bike-sharing, stadiums, bank ATM).
These concepts have been applied in several countries among customers ranging from Public and Private Transport Operators, to Banks and Parking Operators.

Card4B is the Technical Leader of EUROPTIMA (http://www.europtima.teleticketing.eu/), involving partners such as Veolia, OTLIS, Calypso and MTA, which benefit from this new paradigm and innovative AFC toolbox, including WildCard software modules.

WildCard Ticketing Kernel middleware

Modular Software Interoperability Framework: used for terminals and servers, and multi-OS, and easily adaptable to Card Schema Data Models, including the Configurable Business Rules layer to support transactions with several types of Customer Media such as Mifare and Calypso, Java Card, 2D-barcode and NFC, for transport, mobility and multi-services, all looking towards a full interoperability model. It is also the basis for the myMove Platform, for Remote Reloading of cards over the internet and via mobiles.

WildCard Mobile Ticketing Apps

Modular, Portable and Configurable Applications: such as POS, Validator and Inspection, which support the implementation of ticketing and payment systems for transport, mobility and multi-services, on standard off-the-shelf equipment (PDA, smartphone), or legacy equipment (console, validator). They use the WildCard Ticketing Kernel and are designed to provide independence from the hardware and the back-office, offering a low-cost approach and Ticketing-as-a-Service model (TaaS).

WildCard O/D & Clearing Engine

O/D Matrix Inference solution: can apply algorithms on both simple Check-In or Check-In/Check-Out databases, for single or multi-step journeys, and for daily multi-journeys, which can be used for O/D related analysis, Revenue Clearing, or even Transaction Value "Capping" for pre or post-processing fare calculation (e.g. daily or weekly maximum amount).

Source: CARD4B
For further information, visit booth A2

How can we make a high-speed express train even faster? Bring a ticketing expert on board

For Norway's only high-speed Airport Express Train, we streamlined its ticketing and boarding system, improving both customer traffic flow and dependability, and enhancing the end-user experience.

The Challenge
Flytoget (FTG), the Airport Express Train, is a high-speed train that transports passengers to and from Oslo Airport-Gardermoen, with eight stations along its routes. Striving to be the world's fastest and most punctual airport link, FTG is in competition with airport buses and taxis. Convenience, rapid transfer and easy access are essential when it comes to serving Flytoget's passengers, 60% of whom are business travellers.

FTG set out to increase the portion of travellers who do not buy tickets, but rather charge the fare directly to their credit cards (ticketless travelling). The installation and commissioning of the new ticket system had to be done without impacting travellers - especially at peak morning and late afternoon times - and without adversely affecting customer satisfaction. The ultimate goal of the new ticketing system: help FTG to be the most reliable, customer-friendly way to travel from Oslo airport to the city, on to Drammen and vice versa.

The Solution
ACS delivered a streamlined ticketing system designed to meet the needs of the Airport Express Train and also the specific requirements of airline passengers, in particular business travellers.
This new ticketless travelling system bypasses the cumbersome and time-consuming process of purchasing a ticket at a counter. With the ACS solution in place, customers need only swipe a credit card or SAS frequent flyer card on any Flytoget Airport Express Train card reader and board the train.

The Results
The new ticketing system delivered by ACS began operating in March 2010. Since then, FTG has achieved 280 ticket sales per TVM/day and 500 validations per fare gate/day. Passengers are experiencing an efficient, easy, stress-free way to tra-vel. FTG has also firmly established its reputation as the reliable, fast and preferred way to travel to and from Oslo airport, securing a 36% market share of total passenger traffic.

The Bottom Line
Flytoget's goal is to offer the best means of transportation to and from Oslo Airport by emphasizing punctuality, security and excellent service. Dependability and ease-of-use are paramount to customers. We have helped FTG achieve its goal via a new ticketing system that supports the ticketless travel mode and is highly appreciated by business travellers. Easy-to-use from payment to boarding, ticketless travelling is one more reason why Flytoget's customer satisfaction level remains extremely high.

Source: ACS Solutions Switzerland Ltd - A Xerox Company
For further information, visit booth C9

FARA Integrated Electronic Ticketing and RTI on an open platform

It is still common to install Electronic Ticketing, Real Time Information and Fleet Management as separate systems with separate and duplicated hardware. FARA has turned these old conventions on its head, and delivers innovative and integrated software solutions offering full hardware flexibility.

FARA Ticketing enables new means of payment such as EMV and mobile phone, in addition to the smart card. When the driver changes line, the external destination and line-number signs are automatically updated. The FARA WEB-shop allows the passenger using the internet to purchase e.g. season tickets or reload the stored value, paying with a credit card. The next time the passenger uses his/her smart card, it is updated with the new tickets or value.

The FARA Real Time Information System gives next stop announcements on-board. FARA also offers information-based media content combined with entertainment, such as news, commercial advertisements and weather. This is made possible with the FARA Infotainment System which is used to display real-time information combined with advertising from multiple sources.

In a modern public transportation system, passengers expect easy access to accurate route and schedule information. The FARA RTI system gives real-time departure information on screens at stations and stops.

Improved control and management in today's busy and congested traffic environment will contribute to timetable stability and thereby increase confidence in public transportation. The FARA Traffic Priority solution gives the vehicle priority when needed, reducing travelling times and hence ensuring regularity, giving the passenger a smoother ride.

The FARA integrated solution allows all vehicle functionality to run on a single platform with a single point of access to all relevant information for the driver. This will give a flexible and open cost-optimised solution with fewer duplicated components using off-the-shelf HW, reducing the installation cost and resulting in easy and effective maintenance.

Source: FARA
For further information, visit booth B8


FARA

(((eTicket Germany at IT-TRANS 2012

Throughout Germany, the development and spreading of the VDV-Core Application, the standard for eticketing, continues to take place. Since negotiating and finalising the (((eTicket Germany agreement in June 2011, VDV Core Application GmbH & Co. KG have received underwritten contracts from various companies, notably in the last few months. Huge associations of transport companies like Rhein Main Verkehrsverbund (RMV), Verkehrsverbund Rhein Ruhr (VRR) and Verkehrsverbund Berlin Brandenburg (VBB) as well as single transport companies, such as the Berliner Verkehrsbetriebe (BVG) and S-Bahn Berlin, are now under a contractual obligation to (((eTicket Germany.

VDV-Core Application GmbH & Co. KG is looking forward to presenting the latest developments of the eticketing system in Germany at next year's IT-TRANS. This includes the central exchange system (ZVM), the blocking list system (KOSES) and the application and security management system (ASM), which is part of the new web-based communication portal www.eticket-deutschland.de. Besides the ASM, the communication portal is the home of the (((eTicket Germany SharePoint for all the eticketing experts and, of course, has the Homepage which is full of public information.

As part of our presentation at IT-TRANS, VDV-Core Applications GmbH & Co. KG will carry out a workshop about the latest developments. The topics will be the (((eTicket Germany agreement for interoperable eticket systems, the nationwide blocking list system and the feasibility study on In & Out systems.

Source: VDV Kernapplikations GmbH & Co. KG
For further information, visit booth E10

MIFARE DESFire™ is helping to reduce pollution in India´s mega cities!

Congestion and pollution is a key concern affecting health and productivity in mega cities in India.

The aim of the metro projects in New Delhi and Bengaluru (formally known as Bangalore) is to significantly reduce journey time for the city's residents and visitors, relieve congestion on roads and in the bus network, and reduce the associated level of pollution. The MIFARE DESFire™ platform powers the Automated Fare Collection (AFC) schemes of these transport systems.

The New Delhi Metro is already successfully operating and has become the first metro worldwide to receive a UN award for reducing congestion and carbon emissions. According to a UN release, the transport system has helped to reduce pollution levels in the city by 630,000 tons a year. The metro system is used by 1.8 million people every day. Delhi Metro will get $9.5m in carbon credits per year over a period of seven years. Carbon credits are generated by a UN-run scheme called the Clean Development Mechanism (CDM).

The Bengaluru (Namma Metro) is the latest development with the aim being to improve the effectiveness of public transportation in India. It opened its first part in October 2011 and further extensions are currently under construction.

Once complete, the metro will comprise 41 stations and will be able to carry over one million passengers a day. Namma Metro is a fully contactless ticketing system, offering a number of flexible fare structures including season tickets and flexible-use tickets.

NXP's MIFARE DESFire technology is an open architecture platform, uniquely built around the needs of public transport ticketing systems. It supports fast transactions, advanced security and privacy features, and the ability to host multiple independent applications.

This facilitates the integration of services such as banking through MIFARE DESFire EV1 implementation on payment cards. The product is based on open global standards for both air interfaces and cryptographic methods. In addition to offering data transfer rates of up to 848 Kbit/s, MIFARE DESFire utilises Triple DES, 3K DES and AES hardware cryptographic engines for securing the data on the smartcards and data during transmission.

Source: NXP Semiconductors
For further information, visit booth C6

Belgrade Municipality Selected KENTKART for Upgrading The City Public Transportation

Doubling Public Transport Usage with KENTKART's Smart Systems in Belgrade

The Intelligent Transport System is one of the most important ways to encourage Public Transportation. PT Companies need also to invest Information Technologies to ease and increase life standards of passengers to become preferred mode of transport. Belgrade Municipality has taken the courage for increasing service quality in public transportation for its passengers with PPP financing model. The system has started to run at 1679 public transport vehicles on 1st of January 2012. Ticket integration with contactless smartcards, real time passenger information, automatic vehicle tracking and management systems surely will increase number of passengers for sustainable mobility and cities approach of Belgrade City.

KENTKART supports the project with following systems and solutions: customized capacitive touch screen driver control unit and validator production, system architecture design and software development, database entry and management system, card coding, card personalization and card management system software, automatic vehicle management software customization to Serbian, customized report creation for answering GSP requirements, installation, testing and configurations and training.

All these advance systems of KENTKART for Belgrade target to provide following benefits to the passengers:

- Raises the safety and security level of the transport and passengers
- Easy, fast and reliable ticketing system
- Flexibility - different tariff options to pay for the same trip
- Distance based fare tariff applications - pay by km or number of stops
- Accuracy - he system provides online information on the position of the vehicle and its arrival time
- Awareness - on PT schedule, arrival time of vehicles, kiosk offices
- Eliminates carrying change or tickets with AFC systems both in PT and shops.

Source: Kenkart
For further information, visit booth G2

Arcontia Technology showcases its new controller board for embedded contactless applications

The new generation ARC1810 Controller Board is the latest in Arcontia's growing line of contactless smart card products for e-ticketing and e-payment. Featuring a fully embedded ISO 14443 A/B smart card reader, an external antenna, a series of high-speed communication interfaces and a powerful ARM9 – 400MHz processor, ARC1810 is the ideal contactless platform for integration in different contactless terminals used in transit and retail applications.

ARC1810 is designed for use in validation machines, turnstile gates, driver consoles, add value machines and ticket vending machines, providing system integrators and solution providers maximum flexibility to easily design and develop their own ticketing or payment terminal. ARC1810 supports nearly all global contactless standards, including the entire MIFARE family, Smart MX and Calypso, as well as future EMV contactless and NFC compliance, making it suitable for use in both existing and emerging contactless payment and ticketing markets.

The new controller board with enhanced contactless capabilities provides a high degree of flexibility for customers, as well as a leading-edge embedded device platform that reduces development time and time-to-market.

Arcontia Technology will be showcasing the new ARC1810 as an OEM solution, as well as in different embedded environments, including validation machines and turnstiles.

Source: Arcontia Technology AB
For further information, visit booth G6

Banknote Acceptor or Recycler? The MEI BNR lets you decide

The MEI BNR (Bank Note Recycler) links MEI's industry-leading cash accepting technology with a robust four denomination recycling system. It is field-proven in several public transport applications around the world to increase profitability.

Its pioneering modular design and customisable configuration make it ideal for ticketing applications where the latest in proven technology is required.

The Swiss-designed MEI BNR has been carefully crafted to provide all of the cash handling ability of a traditional banknote acceptor but with the added benefit of being able to store accepted banknotes for use as change for the next customer. This eliminates the need to have a separate and costly banknote dispenser for this task. Not only does this reduce the number of separate components requiring management and servicing, it also allows for a smaller footprint overall for the Ticket Vending Machine. In addition, the consumer benefits from having one small zone in which they make payment and also receive change - an ergonomic step forward.

With its modular concept, the MEI BNR can be tailored to the exact needs of the designer. With investment protection in mind, the product can be supplied in banknote acceptor mode with multi-note escrow, ready to be upgraded in the field at a future point simply by inserting the correct module, without the need for it to be returned to a service centre. Or, where cash recycling is already required, the MEI BNR can be supplied with up to 4 recyclers, plus full escrow, and with a variety of cashboxes to suit all needs. You only invest in what you actually need, essential in today's climate where meeting the needs of the customer at the correct price point is paramount.

Unique in offeringthe ability to recycle 4 different denominations, the MEI BNR opens up the possibility for new, groundbreaking consumer experiences at the TVM, such as cash back. Not only does the MEI BNR revolutionise the way cash is securely handled and safely managed and the float minimised for the operator, it also offers investment protection and most importantly a great consumer experience.

Source: MEI Inc.
For further information, visit booth D3

The mobile ticket machine

Just made it in time for the train or bus but no time to buy your ticket first? No problem! With the ticket vending machine of the series almex.compact from the German ticketing-systems specialist Hoeft & Wessel, passengers can buy a ticket quickly and conveniently after boarding their bus or train. Just a touch of the touch screen, insert coins or pay cashless using a card – job done. All functions can be configured in accordance with an operator's requirements. There are various ways in which the unit can be mounted, and the requisite fixtures and fittings can be ordered along with the machine. Its design is clean and unfussy. The almex.compact can also be wall-mounted.

With the mobile ticket vending machine from Hoeft & Wessel, public transport operators not only get a dependable automatic machine, they also get an entire ticketing solution in the same machine: e-Ticketing and payment systems with assistance for maintenance. Hoeft & Wessel is also able providing a back-office system

that allows to manage and maintain complex tariff structures in a straightforward way, delivers all the important turnover figures and includes a monitoring tool that reports any faulty devices.

The ticket vending machine is vandal-proof thanks to its sturdy housing. It contains up to four supplementary hoppers. The graphics-capable printer comes equipped with two paper rolls. This also reduces the maintenance costs. The machine can communicate wirelessly with the back office, thus enabling data to be post-processed rapidly and effectively. The almex.compact is equipped for the future of e-Ticketing, supporting standards like ITSO, Calypso or VDV-KA.

Source:
Hoeft & Wessel AG
For further information, visit booth D8

Bill Recycler Minimises Operator Cash Management Costs and Reduces Coin Depletion at TVMs

Ticket Vending Machines (TVMs) are now typically configured to accept coins and bank notes, with most of these only dispensing coins as change. The current cash TVM configuration leads to frequent visits for bill and coin cash box collection and coin hopper replenishment. One solution is the bill recycler, which stores notes inserted by customers and uses them to return bills as change, thereby taking pressure off the coin hoppers and reducing coin replenishment calls. Better yet, because the bill recycler pays riders from inserted notes, not all notes go to the bill cash box and fewer cash box pick up calls are generated.

Crane Payment Solutions successfully launched its second-generation Bill-to-Bill 300XE bill recycler. The Bill-to-Bill 300XE has a cash box capacity of 1,000 notes and can recycle up to 300 notes of three denominations. Because the Bill-to-Bill 300XE has market-leading recycling and cash box capacities, it enables Operators to maximise the benefits they reap from bill recycling, namely a reduction in cash replenishment and pick up calls to the TVM.

Cash is normally transported in locked containers to restrict access during transfer, but some solutions in the market leave cash vulnerable during the loading and unloading process. However, the 'true closed-loop loading' implementation offered by the Bill-to-Bill 300XE monitors the money at every step of the transfer process to protect revenue. The 'true closed-loop loading' feature of the Bill-to-Bill 300XE provides an automatic accounting trail for cash at all times, from the Revenue Department back-office to the TVM.

But if Operators are not yet sure that they want to convert to bill recycling, Crane Payment Solutions offers the Bill-to-Bill 100XE, its future-proof, multi-escrow bill validator. Operators can upgrade the functionality of the Bill-to-Bill 100XE to recycling by purchasing additional recycling cassettes along with a software upgrade, and can convert their TVMs from bill acceptance to bill recycling easily and cost-effectively without any mechanical changes to the TVM.

Source:
Crane Payment Solutions
For further information, visit booth C4

Accenture & Public Transport

Accenture is a global management consulting, technology services and outsourcing company, with approximately 236,000 people serving clients in more than 120 countries. We combine unparalleled experience, comprehensive capabilities across all industries and business functions, and extensive research into the world's most successful companies.

In the last couple of years, Accenture has developed an array of services and solutions for the Public Transportation industry. In the context of increasing financial pressure on public organisations, Accenture has developed a new approach for Transit Authorities to enable Revenue Collection from their Public Transit operations:

• **Platform of Services** - Accenture's Cloud-based ticketing solution allowing access to data through mobile and online channels

• **Portable Architecture** - On-board sales and validation applications compatible with in-vehicle infrastructure to optimise upfront investment

• **OpEx-based model** - Operations cost variable depending on usage for better total cost of ownership predictability

Accenture's new vision of ticketing allows mobility operators to deliver high performance in their business through better customer centricity, time-to-market, innovation and cost control in this fast-evolving digital age. Accenture collaborates with clients to help them become high-performance businesses and governments. The company generated net revenues of USD 25.5 billion during the fiscal year ended August 31, 2011.

Source: Accenture
For further information, visit booth B4

Mobile maintenance documentation for underground railway, tram and bus workshops successfully introduced at German public transport company

With Paledo, Syntactix offers a modern and user-friendly tool to transform existing paper-based documentation processes into mobile digital solutions. By avoiding cross-media conversions between IT systems and paper, the documentation quality is increased whereas costs and time are reduced. Due to the modular architecture, a productive system can be implemented in no time. With its standardised interface modules, Paledo can be integrated easily into existing IT environments (e.g. SAP PM). Existing paper forms can be easily imported by the customer and connected with the maintenance objects. The mobile data acquisition is performed by pen and state-of-the-art handwriting recognition. The data entry device is a robust, lightweight and ultra-fast Tablet PC specially designed for industrial applications. As the end users are still filling in the forms they are used to with a digital pen, the system is easily accepted in workshops or by employees who usually dislike IT tools.

The systems were too difficult to use and the existing well-arranged protocol layouts could not be transferred to the tiny PDA screens.

In 2010 a new attempt was made with Paledo. Due to its user friendliness and keeping existing protocol layouts, the system was quickly accepted within the underground railway and tram workshops. The system was introduced within three months. It was easy to see that Paledo resulted in a huge improvement for the efficiency of the documentation and archiving processes.

The experience gained is now used to introduce the system within the bus workshops. The system will be used for documenting authority-relevant general inspections and safety checks. With the digital integration of a brake test bench, time-consuming manual data input is further reduced. The automatic highlighting of tolerance violations and severe defects increases documentation clarity and facilitates the execution of the repair jobs.

In the German public transport company VAG Nuremberg the wish to eliminate paper-based documentation within the maintenance workshops has existed for a long time. Previous attempts at introducing a mobile documentation system failed due to low end-user acceptance.

After the end of the trial phase this year the application of Paledo will be extended to trip recorder and ECE inspections.

Source: Syntactix GmbH
For further information, visit booth F15

This is Data Respons

Data Respons is a full-service, independent technology company and a leading player in the embedded solutions market.

At Data Respons we believe a smarter solution starts from inside. We provide products, R&D services and embedded solutions at all levels of complexity to different customers in a wide range of market segments.

Our culture & history characterises a tremendous thirst for knowledge, the will to succeed and a burning passion for embedded solutions, resulting in a customer-focused approach with a strong corporate culture built on shared attitudes and values.

Our customers have a global leading position within their industry. Some offer technologically complex products to end-customers worldwide, others are often subject to strict government requirements and regulations.

• Bridge to Asia

Data Respons is a stepping stone into Asia for our customers, where our presence ensures an optimal synthesis of local innovation and global production.

Data Respons' office in Taipei acts as a "bridge" in the sense that it connects all Data Respons' global offices to our partners in Asia, including China.

• Technology partner

We enter the customer's development environment and contribute specialist expertise, the ability to produce solutions and experience across a broad expertise spectrum.

Customers will quickly gain access to our extensive experience of development, industrialisation, certification, testing and system integration – and thus be able to get their products to market faster and more efficiently.

Source: Data Respons GmbH
For further information, visit booth G1

IT-TRANS Technical visits

1. Visiting the east depot of Verkehrsbetriebe Karlsruhe GmbH (VBK)

The VBK transportation authority is offering a chance to see the heart of the organisation with a one-hour tour through the new depot on Gerwigstraße in eastern Karlsruhe, including cavernous parking spaces with tracks and points, an ultra-modern maintenance centre for the technical upkeep of low-floor trains and light rail cars, as well as sophisticated control technology. There will also be an opportunity to see the central control room of Verkehrsbetriebe Karlsruhe and Albtal-Verkehrs-Gesellschaft, where all the lines between the vehicles in the far-reaching network of trams, light rail vehicles and buses interlink.
Address and meeting point: VBK depot, Gerwigstraße 65, 76131 Karlsruhe

2. Tour of the construction sites for the "combined project"(combination of a tram tunnel in Kaiserstraße and a road tunnel in Kriegsstraße) by Karlsruher Schieneninfrastrukturgesellschaft mbH (KASIG)

Karlsruher Schieneninfrastrukturgesellschaft (KASIG), which is constructing the combined project for the centre of the city, is offering the opportunity to quite literally gain a deeper insight into what will eventually be the city's underground stations with a one-hour tour through the current construction site. Since the beginning of 2010, work has been underway. Construction will start with the walls before moving on to the ground and ceiling of the stations.
Proper footwear is recommended for the tour, helmets will be provided.
Address and meeting point: Informationspavillon K., Ettlinger-Tor-Platz 1 a, 76133 Karlsruhe

3. The Karlsruhe intermodal tram-train system

Roughly 30 kilometres outside the city of Karlsruhe lies the untamed beauty of Murgtal, one of the most fascinating areas of the Black Forest. The roughly 2-hour tour begins at Karlsruhe Central Station and proceeds with the S 41 tram into Murgtal through to picturesque Forbach in the northern Black Forest. The renowned Karlsruhe intermodal tram-train system can be experienced along this route; the connection between the tram network and Deutsche Bahn railway is a moving testament to engineering, in the truest sense of the word. In order to make it possible for a single vehicle to run in both systems, VBK and AVG developed an intermodal vehicle capable of switching systems, allowing it to change from the 750-volt DC of a tram to the 15,000-volt, 16 2/3 hertz AC of the railway.

Meeting place: Central Station; time to be announced

Source: Karlsruher Verkehrsverbund GmbH (KVV)
For further information, visit booth F10

Organisers

UITP, International Association of Public Transport
www.uitp.org

KMK, Karlsruher Messe- und Kongress-GmbH
www.messe-karlsruhe.de

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