



SYSTEMS FOR PEOPLE

A move towards individual duty scheduling

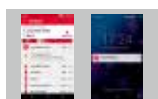
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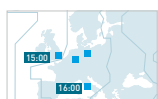
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Without its 1,400 bus and tram drivers, Zurich would have a problem. Every day, more than 215,000 people commute to work in Switzerland's financial capital – a city of only around 405,000 inhabitants. The transport service staff of Zurich Public Transport (VBZ) ensure that everyone reaches their destination on time. To plan its staff assignments, VBZ uses software from IVU.

Romy Tenzler starts her shift with her colleagues at Hard tram depot at just before 5:00 a.m. One tram after another makes its way out into the commuter traffic until the hall is empty. At peak times, a combined total of around 340 buses and trams are out in the city keeping passengers on the move. The early start is no problem for Ms Tenzler. She actually chose it herself.

"I usually start work in the morning," says the young tram driver. Like every depot, Hard has its own dispatching unit, which is solely dedicated to supporting the transport service staff based here. With the assistance of IVU.crew, Sonja Schneider and a colleague set the duty schedules for 110 tram drivers, allocate shifts and approve days off.

Involving drivers more effectively

IVU's dispatching system has been in use at VBZ since 2014, complete with the employee portal

and automatic personnel dispatch (APD), which is called individual duty planning at VBZ. "We wanted a solution that can be enhanced in line with current standards," says Bruno Häfeli, Head of Dispatching at VBZ, explaining the decision to opt for IVU.crew.

The main factor was making the drivers more involved in the planning process: "The system was also to pay more attention to the individual needs of the employees," adds Mr Häfeli. In addition, HR managers expected IVU.crew to provide better evaluation options and statistics in order to optimise planning quality and enable a more targeted response to potential bottlenecks.

Individual duty scheduling

Hard is the only VBZ depot to date in which conventional staff roster planning has been completely replaced by individual duty scheduling.

This means that the duty schedules of the transport service staff are no longer set in advance for the whole year. Instead, the staff now

request their duties, for instance stating if they prefer to do the early duty in a particular week or would like to have a weekend off.

Romy Tenzler applies for days off three months in advance, and her shifts two months in advance. She receives confirmation of her duties

AT PEAK TIMES, AROUND 340 BUSES AND TRAMS ARE OUT IN THE CITY



Dr Helmut Bergstein, Member of the Executive Board

Dear readers and IVU customers,

People’s expectations of their job are changing. As well as the pay, factors such as time off in lieu and the work/life balance are becoming increasingly important. This also applies to transport companies. To be attractive employers, they need to take their employees’ preferences into account and schedule their duties accordingly.

Customers also have different expectations of public transport these days. Passengers want to receive up-to-date information if there is any disruption, both before they set off and while they are travelling. Ideally, the system automatically suggests an alternative route if a connection is not feasible.

On the following pages, we show you how IVU’s systems help people: from the employees of Zurich Public Transport (VBZ) (page 1) and the customers of ASEAG (page 11) to the residents of Jerusalem, where transport in the city has been utterly transformed with the assistance of IVU (page 8). On pages 4 and 5, we tell you about the forthcoming products we are already working on.

At our user forum next month in Berlin, you are welcome to see for yourself how our systems can help you. I look forward to meeting you there and toasting 40 years of IVU!

Best regards,

Dr Helmut Bergstein

around a month beforehand on a rolling basis. Special occasions such as events and construction sites are already incorporated in the scheduling. This prevents additional changes at short notice.

For Romy Tenzler, this system is a big improvement: “I find scheduling much easier now. For instance, I can allocate my time freely and be more spontaneous every now and then.” Based on preferences and all other conditions, IVU.crew devises an extremely efficient duty schedule in line with the rules. This enables VBZ to cover all services optimally. At the same time, the drivers gain considerable flexibility and planning freedom.

Entering requests in the employee portal

The IVU employee portal and web client constitute the central interface for communication between transport service staff and dispatchers. Romy Tenzler uses the online application to enter her preferred days off and shift classes into the system directly. At the same time, it shows her what duties she has been assigned and whether a request has been approved. She can also easily view, download and print out her monthly statements via the portal.

Overall, this has made the processes much shorter: “Previously, I had to ask, and Ms Schneider had to see if I could swap my duty with anyone. It was very time-consuming,” says Ms Tenzler. Another advantage for her is that the employee portal is accessible from anywhere at any time. It is no longer necessary to go to the depot to find out about duties. Instead, Ms Tenzler easily logs in from home or on the move using her smartphone.

Basis for enhancement

While the employee portal and holiday planning are already available to all VBZ transport service staff, only some of them can use individual duty scheduling. This is mainly because of very specific requirements in terms of duty schedule quality and the host of different qualifications that apply to bus drivers. Even so, Bruno Häfeli is impressed: “We haven’t quite got there yet, but we now have a very sound basis and are on the right track.”

Individual duty scheduling is also to be rolled out at the other depots in the future so that all drivers can benefit from the new system soon. VBZ as a whole also gains from this as it enables the company to present itself in its recruitment campaigns as an attractive employer with good working conditions. ■

“WE HAVEN’T QUITE GOT THERE YET, BUT WE NOW HAVE A VERY SOUND BASIS AND ARE ON THE RIGHT TRACK.”



“WE WANT TO BE AN ATTRACTIVE EMPLOYER”

Interview with Bruno Häfeli, Head of Dispatching at Zurich Public Transport (VBZ)

Mr Häfeli, VBZ introduced a new staff dispatching system last year. What was the reason for replacing the old system?

In the 1990s, we bought a staff dispatching software package that was specifically developed for VBZ and tailored to our requirements at the time. It was enhanced as time went on, but after around 15 years, it had come to the end of its useful life. It would have had to be completely rewritten. So we decided to replace the system and put it out for tender.

What were the aims of the invitation to tender?

We wanted a solution that can be enhanced in line with current standards. It had to incorporate the requirements of individual employees more effectively and enable us to introduce individual duty planning, or IDP as we refer to it. Others call it APD, automatic personnel dispatch. With this, we wanted to give our transport service staff more freedom and pay more attention to their social environment.

The new system is a clear step in that direction. We have found a good solution with IVU.crew. All our transport service staff have been available in the system and dispatched with it for over a year now. We have completely replaced the old dispatching software.

How did the transition to IVU.crew go?

The dispatchers received a completely new application. Many aspects were no longer suited to the common processes. IVU.crew also provides lots of options that we don't use at all, as it not just a VBZ product. The employees – group leaders, direct supervisors and transport service staff as well as dispatchers – went on several training courses to become acquainted with the new system. We trained intensively and documented everything extensively in order to adapt the software to our operational requirements and use it accordingly.

Communication with employees must not be underestimated. We struggled a bit with this at first. Suddenly, everyone had to use the web

client and the employee portal. They could no longer just ring up and ask about their duties. It was a challenge to communicate this properly. We were constantly on hand in the depot to answer questions and also gave preliminary training to specific employees who in turn helped out their colleagues. In addition, we made a few short films and showed them constantly. Even so, there were a few grumbles in the first two or three months.

But around 80 to 90 percent of employees now use the web client. They can find out about their duties, days off and holidays, view and print out their monthly statement and send their requirements to the dispatching staff via the communication tool.

How has dispatching changed since the launch?

We had to revise all our processes. That was quite a challenge. Every single holiday had to be reflected in a process. It took a while for everyone to get used to it. If you had worked with another system for 10 years, you would struggle to get to grips with things at first.

But in hindsight, holiday planning has proved to be highly efficient compared with before, when we kept everything on paper in folders. Back then, employees at the depot had to go to the counter and hand in or sort out their holiday requests there. Now, they do this via the web client within 15 minutes, regardless of location and opening hours. It makes things much easier for everyone.

Mind you, there are also processes that have become more complicated. Some things were simpler before. However, I partly put that down to the fact that IVU.crew is not an individual VBZ solution.

Has individual duty planning met your expectations?

So far, we are only running IDP as a pilot project and have only fully introduced it at the Hard tram depot. We are not yet entirely satisfied with

the possibilities of the software. It is difficult to integrate the number of different qualifications that we have in the bus sector in a way that produces good duty schedules and working models that fit in very well with employees' preferences. We are still working on this, including with IVU and in the context of user groups, so we can hopefully offer IDP to all bus and tram transport service staff soon.

Where do you think things will go next?

If you look around now, it is clear that young people want more than just a career. They also want to experience things outside of work, they want to travel and work part-time while they are still young. The more flexibility you can give them, the better the offer and the more attractive the employer. Obviously, that's what we want to be, and IDP certainly plays a key part here. ■



Bruno Häfeli,
Head of Dispatching,
Zurich Public Transport (VBZ)

Bruno Häfeli heads the dispatching department at Zurich Public Transport. Together with 18 employees, he handles the duty schedules of around 1,400 drivers. He is business economist and conflict manager by profession.

INNOVATIONS FOR PEOPLE

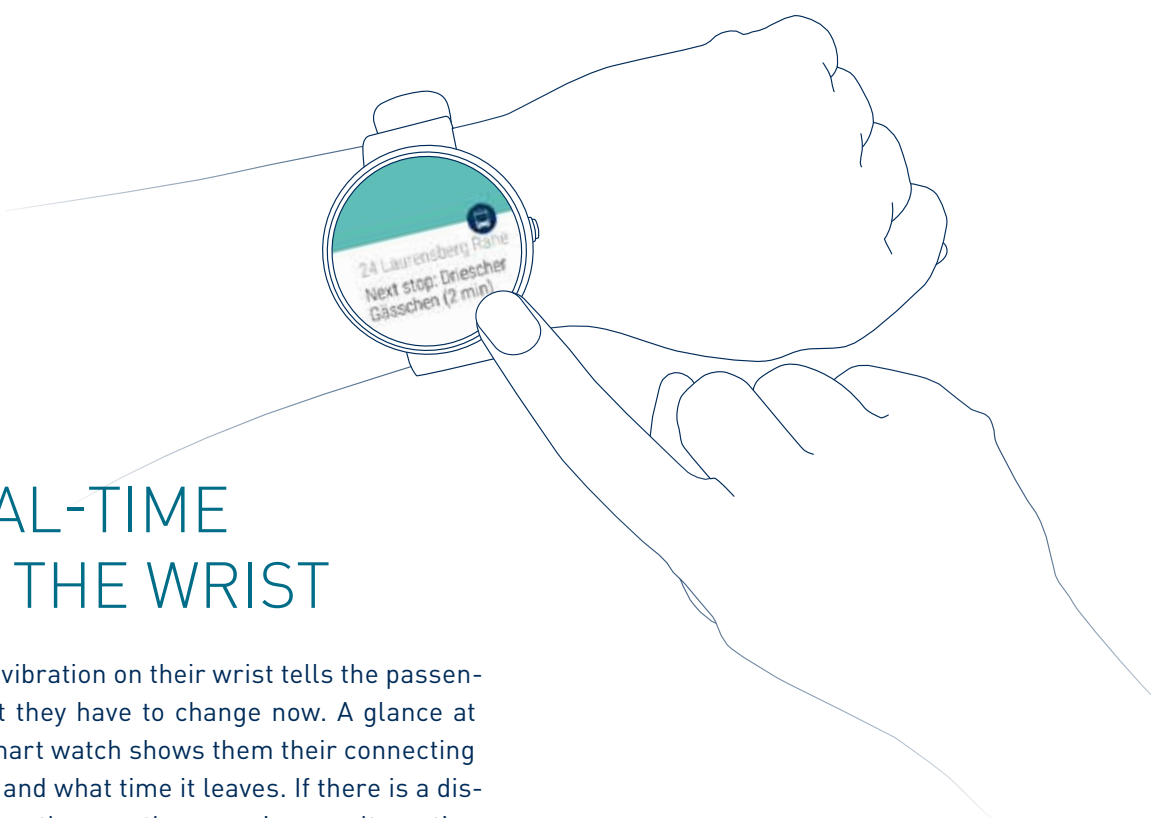
How can passenger information be enhanced? What is of most benefit to drivers? What are the current trends? What opportunities are opened up by new technologies? IVU's developers constantly ask themselves these and similar questions. Their aim is to make it easier for people to use public transport on a daily basis. Ideas

for new solutions are constantly generated this way. Some don't make it beyond the drawing board because the benefit turns out to be less significant than expected, or because the technology is not yet advanced enough. However, some ideas are developed and ultimately tested. We present three of them here.

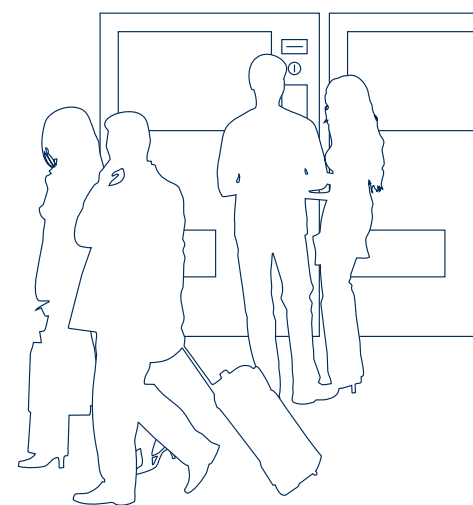
REAL-TIME ON THE WRIST

A quick vibration on their wrist tells the passenger that they have to change now. A glance at their smart watch shows them their connecting service and what time it leaves. If there is a disruption on the way, they can view an alternative route with a tap of the finger. And they can refer to the departure times at their preferred stops at any time – all without having to take their smartphone out of their pocket.

IVU's engineers are currently working to bring these functions – already included in the current IVU.realtime.app for smartphones (see the article on page 11) – to watches with Android Wear. Passengers will then be able to perform the most important tasks directly on their smart watch – a big advantage when hurrying to the stop or on crowded buses and trains, for instance. The app must be installed on the smartphone in order for it to work. Developers are currently testing the first prototypes. ■



Next trains				10:53:33
Platform	Westbound	Platform	Eastbound	
	Towards Central London		Towards Shenfield	
	London Liverpool Street	8 mins	Shenfield	9 mins
	London Liverpool Street	18 mins	Shenfield	19 mins
	London Liverpool Street	28 mins	Shenfield	29 mins
	London Liverpool Street	38 mins	Shenfield	39 mins
th ways (Hosp Bridge R/bt - London Rd R/bt) Inci				16 °C



DIGITAL BRIEFCASE

It's 7:53 a.m., and Claudia is standing at a stop 10 minutes away from her house, waiting for the bus on which she will take over from her colleague. The bus is on time, and the shift was quiet and uneventful, apart from the fact that the front left indicator is broken and needs to be repaired in the next service. First of all, Claudia has to take a different route from the usual one. Due to a pipe burst in the night, a road is closed for the next three hours, meaning that one stop is inaccessible.

Personalised driver's tablet

Claudia knows this even before she speaks to her colleague or the control centre. Her driver's tablet contains all the information she needs for her duty. This starts as soon as she logs in: The IVU.pad app displays up-to-date, personalised messages about forthcoming journeys and vehicles and enables access to the employee portal and the duty schedules. In addition, task lists, important documents and training-course details including training materials are stored in the digital briefcase. Visits to the depot are increasingly unnecessary.

Most of these functions are still some way from becoming a reality. But IVU's developers are working to gradually incorporate them into the IVU.pad app. And they have plenty more ideas for how to integrate the tablet into the system landscape as a central interface between drivers, dispatchers and the control centre.

Simplifying tasks

Everything of importance to the duty should then be available on the tablet, making it the driver's personal companion and assistant. It remembers activities on a situation-controlled or time-controlled basis, makes contact with dispatchers or the workshop as required and helps with recording and damage reporting in the event of accidents with check lists and guided dialogues. IVU.pad accelerates communication between everyone involved, thus ensuring efficient processes.

At the end of her duty, Claudia documents all events and details directly online, applies for a day off with a tap of the finger and then logs off. She can do this easily from her desk at home. She doesn't go back to the depot until two days later, when she parks the bus after her duty. Although she hasn't seen the old grey notice board for ages, she is up to speed with everything. ■



LONDON: WELL INFORMED

A new passenger information system from IVU is currently being tested in a pilot project in Britain's capital London. The city's transport authority Transport for London (TfL) has chosen a digital information system from IVU for a pilot installation, transforming the passenger information at Manor Park station.

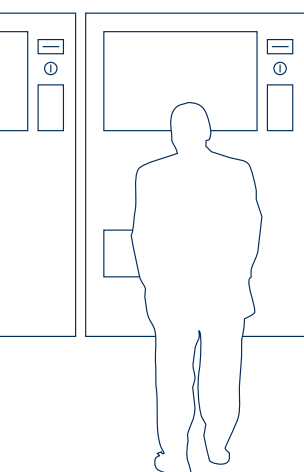
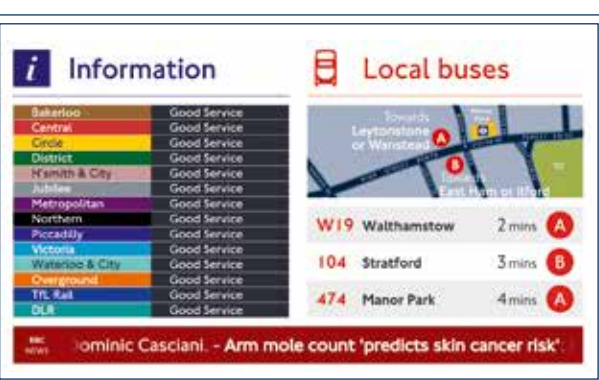
8,500 buses to more than 2,500 LED displays at bus stops. At Manor Park it includes additional information such as the official @TfL Twitter feed, local weather, and BBC News. Disruption information is immediately notified to passengers using the system's ability to automatically supersede Twitter and News feeds with disruption information.

The station, on the TfL Rail route running between Liverpool Street and Shenfield, is the site of a pilot installation of a multi-modal passenger information system from IVU. Located in the ticket hall area of the station, two large format displays enable passengers to rapidly gain information on the status of TfL Rail trains, London Underground services, and live bus departure information from the two stops adjacent to Manor Park station.

The IVU system is a sub-set of IVU.realtime that is already deployed in London, delivering real time bus departure information for more than

TfL will use the pilot to carry out passenger surveys and will engage with the public to seek feedback, comments, and suggestions for possible future enhancements to their design.

Alan Bell, Managing Director of IVU Traffic Technologies UK Ltd, said: "We were delighted that TfL Rail selected IVU to deliver this pilot. With our previous experience in London and other major cities worldwide and our skilled development resources we were able to confidently deliver a solution within TfL's tight timescale." ■







40 YEARS OF IVU

IVU systems have made for vibrant cities since 1976. More than 400 people at 15 locations worldwide give IVU its identity, and their knowledge and engagement are what make IVU stand out. These people develop systems for people.

TRANSFORMING CITIES

Around 20 years ago, an idea began to take shape in Jerusalem: building a light rail system. Transport planners were expecting a further increase in traffic even back then. But even more cars on the already congested roads? Unthinkable. To ensure that the ancient city remained fit for living in, they concluded

traffic would have to be completely reorganised. People were to reclaim the streets from cars. Despite initial reservations from politicians and the public, the vision has ultimately become a success story that has transformed life in Jerusalem. IVU's systems also played their part.

JERUSALEM GOES HIGH-TECH



Nadav Meroz,
Managing director of the JTMT

Nadav Meroz is the Managing director of the Jerusalem Transportation Master Plan Team (JTMT), the partnership between the city of Jerusalem and the Transportation Ministry. Its task is to manage a major overhaul of the Jerusalem metropolitan area transportation system. Nadav Meroz holds a master's degree in Urban Planning from the renowned Hebrew University of Jerusalem, and an MBA from the College of Management Academic Studies in Israel.

When Nadav Meroz travels to work, he sees a lively, diverse city with a modern public transport system. Buses are constantly on the move, taking their passengers to ancient ruins and futuristic office buildings, to synagogues, mosques and churches and numerous attractions. The many narrow streets and reduced-traffic areas are abuzz with people on their way to work or university or taking in the sights. Among all this is the light rail, which runs through the city from north to south, through the lively Jaffa Road and the famous Chords Bridge, terminating at the central bus station, a major hub where buses from all over Israel are constantly arriving.

Public transport in Jerusalem is reliable. Nadav can be proud as this wasn't always the case. As director of the Jerusalem Transportation Master Plan Team (JTMT), the fact that the tram and public buses are now embedded in the city's way of life is partly down to him. Together with the Israeli Transportation Ministry and the Jerusalem Municipality, The authority started rethinking Jerusalem's transport concept back in the mid-1990s. Car traffic was to be scaled back and public transport increased. We talked to Nadav Meroz about the project and his plans.

Overcoming resistance

"At the beginning, there was major resistance," he recalls. "People didn't believe that we would reduce car traffic in the city so dramatically. They took a lot of convincing."

The core of the project was a totally new light rail system, the first one not only in Jerusalem, but in the whole of Israel. Areas where dense car traffic obscured the cityscape and exhaust emissions polluted the air in the 1990s were to become the sole preserve of pedestrians and the tram – including Jaffa Road, one of the longest, oldest and most important streets in the city.

This was an unparalleled project for the Mediterranean country. "No one could envisage it," Nadav relates. "We invited politicians to France and Germany to show them how it can work."

Construction work on the light rail tested the patience of the Jerusalem public. Road closures led to even more traffic chaos than usual, residents were plagued by noise and businesses saw their takings fall. They blamed the authorities for this, says Nadav: "We were the bad guys."

"THERE WAS MAJOR RESISTANCE. PEOPLE TOOK A LOT OF CONVINCING."



PUBLIC TRANSPORT IN JERUSALEM

Jerusalem's public transport is provided by several different companies, coordinated by the Ministry of Transportation and the JTMT. While the tram is operated by the industrial consortium CityPass, the private transport company Egged runs the bus routes in the western part of the city. Public transport in East Jerusalem is provided by numerous small independent bus companies.

Central planning and dispatching

Yet the authority saw its plan through to fruition. After nine years of construction, the first light rail line went into service in 2011. At the same time, the bus network was reorganised: In the heart of the city, express bus routes were set up along the most important stretches. Feeder routes provided connections to the outlying districts. Stops were re-planned and modernised, shelters were built and hundreds of stop displays were installed.

Another goal set by the Israeli Ministry of transportation was to integrate the various transport systems and operating companies. To ensure optimum links between the different transport operators, the JTMT therefore decided in spring 2011 to organise all planning and dispatching of vehicles and staff and fleet management centrally. IVU.suite was chosen for this.

Focus on passengers

Passenger information was also a top priority. As well as being shown up-to-the-minute departure times at the stops, passengers were also to be enabled to look up the best connection on their smartphone.

"We wanted to address new customer groups, especially young people, students and car drivers," says Nadav Meroz. On the basis of IVU.journey, the JTMT therefore developed the Trip Planner, an intuitive online tool for finding connections, which also works on smartphones. "For young people, a smartphone is an essential basic tool; they always have it within reach," says Nadav. "The Trip Planner makes it really easy to look up connections and use public transport. With it, we can acquaint people with

our system much more easily." The Trip Planner also has Jerusalem's many tourists in mind and it is actively promoted in its hotels and tourist information.

Its success is well seen in the streets of Jerusalem. The number of people using Jerusalem's public transport system has been rising constantly since 2011. Surveys show that up to 15 percent of users have switched from their car. Buses and trams have a good reputation: "People are now associating high-tech with something that used to be low-tech," says Nadav. "Public transport is regarded as modern and practical."

Great potential

Now, people are behind the project, which is being continuously enhanced. The Israeli Transportation Ministry and the Jerusalem Municipality are promoting plans to extend the light rail network by 40 kilometres in the next eight years. Further bus routes are planned, extra bus lanes are to be built on the access roads into the city, and the service is to be improved further.

All this is based in no small part on IVU's systems, which have significantly increased the volume and accuracy of data at the JTMT's disposal. This has enabled the authority to plan routes more effectively and optimise connections in order to achieve even shorter journey times – and ultimately gain more passengers. In the medium term, Nadav aims to increase the proportion of public transport in Jerusalem's modal split from the current level of 27 percent to at least 40 percent.

Politicians are also impressed by this as the IVU optimisation algorithms help to improve vehicle

deployment and minimise unnecessary empty runs. As well as reducing costs, this ensures lower traffic density and less air pollution. The Israeli Ministry of Transport now also uses the IVU solution to plan traffic for other regions of Israel and prepare forecasts.

Bringing people together

However, Nadav Meroz believes that the greatest benefit of the new public transport network lies elsewhere. Whereas the various neighbourhoods used to be very isolated from each other, the light rail and individual bus routes now run through several districts. Ultra-Orthodox Jews use the service alongside Muslim Arabs, Christians and other population groups. Public transport is thus helping to bring people together. ■

IVU.SUITE AT THE JTMT

Since June 2011, the JTMT has been using IVU.suite to plan and optimise up to 10,000 journeys a day for around 740 buses and 46 trams in Jerusalem. With the IVU system's optimisation algorithms, the authority prepares efficient schedules and duty schedules for the various private operators. The IVU solution is also used for performance monitoring and settlement with the client. The travel-planning system IVU.journey, which calculates the optimum connection, forms the basis for passenger information and the Trip Planner.

OVERCOMING COMPLEXITY

These days, people are surrounded by complex technical challenges in both public transport and logistics services. But only a handful actually notice them in their daily lives. The responsible companies make sure of this: from nationwide rail providers and local public transport operators to service providers specialising in

incident management. They are all supported by IVU. With its systems, IVU helps to structure the complex processes as efficiently and simply as possible so that the train arrives on time, the app is automatically informed of changes and the emergency services reach their destination quickly.

NEW KKI ASSIGNMENT CONTROL SYSTEM UP AND RUNNING

Call centres for fault, emergency and crisis management have to act extremely quickly when a call comes in, entering data, alerting and dispatching operational staff and notifying authorities. At Berlin-based Kompetenzzentrum Kritische Infrastrukturen GmbH (KKI), a new assignment control system – one that simplifies the task of dispatching on-call staff and ensures efficient processes – is now operational. The system has been developed in close coordination with IVU.

ENTERING DATA, ALERTING AND DISPATCHING OPERATIONAL STAFF AND NOTIFYING AUTHORITIES.

The IVU dispatching software features a modern and intuitive web interface that gives dispatchers the best possible support at every step of the process. A guided on-screen dialogue helps users to enter all data necessary for the assignment quickly and accurately. At the same time, a timer shows how much time has passed since the call, thereby making it easier to comply with the strict requirements on assignment entry times. An integrated map display shows dispatchers all relevant geographical information,

such as line networks and building entry points. The KKI call centre can also track the status and position of the units live, which means that they are always up to date on the current situation at the assignment location.

Thanks to numerous interfaces, the IVU system integrates seamlessly into the heterogeneous communications landscape at KKI. On-call staff can be alerted via their mobile data devices or by telephone, text message, pager, printer or fax. One particular advantage of the IVU solution is that it is fully capable of supporting multiple clients. Consequently, KKI can take care of numerous clients and a range of divisions and media within a single system as well as handle all relevant tasks and work processes. The IVU.workforce solution serves as the basis for the assignment control system for managing assignments in the field. It took only about a year to go from the start of the project to the go-live date. ■



INTEGRATED RESOURCE PLANNING FOR ABELLIO

Since 13 December 2015, Abellio Rail Mitteldeutschland operates the Saale-Thüringen-Südharz network, ten lines with a total length of 575 km between the German states of Saxony-Anhalt, Thuringia, Saxony, Lower Saxony and Hesse. Since then, 35 new trains and 350 employees ensure that the approx. 8.5 million passengers per year reach their destination on time and in comfort.

To deploy vehicles, drivers, on-board personnel and the staff at customer service centres and workshops efficiently, Abellio uses the integrated standard solution IVU.rail, which is specifically geared towards railway companies' requirements.

IVU provided the complete system within just a few weeks from commencement of the project in June 2014. By April 2015, Abellio had already started schedule, duty and staff roster planning for the 2016 timetable year. In addition, the IVU.rail dispatching module went live in July 2015. The system assists planners and dispatchers in resource planning with numerous

automation functions and a flexible rule engine. A mobile employee portal ensures straightforward, paperless communication. This means that, in future, drivers and on-board personnel will be able to register commencement of their shift online and confirm tasks completed during their shift. As a result, tasks can be recorded in the system and documented centrally more quickly.

**35 NEW TRAINS, 350
EMPLOYEES, APPROX.
8.5 MILLION PASSENGERS
PER YEAR**

Dirk Ballerstein, Managing Director of Abellio Rail Mitteldeutschland, said: "What particularly impressed us about IVU.rail was the level of integration of its modules and its product maturity. We were ideally equipped for commencement of operations in the STS network and are now prepared for potential expansions in the future." Perry Prust, the responsible member of the IVU Management Board, stated: "We are delighted to have gained an important customer with a strong position on the German railway market in Abellio Rail Mitteldeutschland. This underlines the quality of our system and our recognised expertise as a leading provider of integrated IT systems." ■

SMARTPHONE APP WITH TRAVEL COMPANION FOR ASEAG

Never miss a connection or forget your departure time again – since December ASEAG Mobil automatically reminds users of upcoming trips or changes. With the latest version of the underlying IVU.realtime.app, we have added new features to the Android app, including a virtual travel companion that helps passengers throughout their journey.

This new feature makes ASEAG Mobil a full digital travel companion in the Aachen city region. As soon as the user chooses a connection, the app informs them promptly if they need to get off or change during their journey. A live display highlights the next stop so that the passenger always knows exactly where they are at any time. For added convenience, the app automatically adapts navigation to the actual traffic situation. If it detects that there is disruption or that a connection cannot be made as planned, it issues a visual and acoustic warning and also suggests an alternative route on request.

Departure times for 2.000 stops

The function is made possible by the new version of IVU.realtime.app, on which apps in London, Mantua and other cities are also based. ASEAG is the first transport company to use the travel companion. In combination with the background system IVU.realtime, the app displays the departures

**AS SOON AS THE USER
CHOOSES A CONNECTION,
THE APP INFORMS THEM
PROMPTLY IF THEY NEED TO
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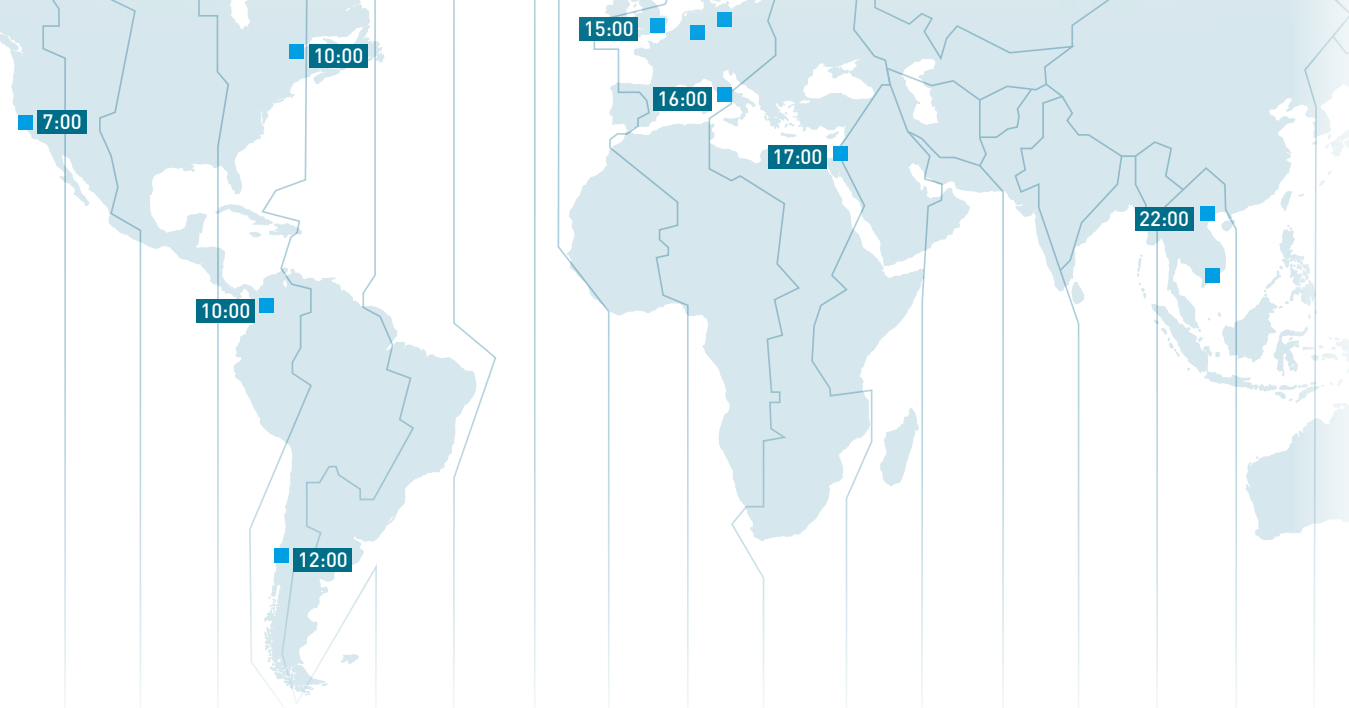
for more than 2,000 ASEAG bus stops in real time, knows the position of all buses in the network and is aware of delays. In addition, IVU.realtime.app supports travel planning by displaying all stops in the surrounding area

based on the GPS location, a bus-stop search and a favourites function for preferred stops. ASEAG Mobil is available for iOS, Android and Windows Phone. The digital travel companion is only included in the Android version at the moment.

"With the new function, our customers can relax even more on our buses," said Michael Carmincke, Managing Director of ASEAG. "They don't have to fret about missing their stop. If something does go wrong and the bus is late, the app will give them the help they need straight away." Dik Lokhorst, the responsible member of the IVU Management Board, added: "These days, smartphone users expect more from an app than just passive information. Active assistance is a key component of customer-friendly public transport." ■

SNAPSHOT

15 locations in 11 time zones at the same hour: In California the day is just beginning, while in Chile it is already noon and Europe is nearing closing time. In contrast, it is already dark again in Vietnam. Daily routine at IVU.



7:00 a.m. SAN FRANCISCO

Larry Rosenshein, IVU's Head of Sales for North America, sits at the kitchen table with a cup of coffee and scans through his inbox. He quickly gets himself up to speed on what has been happening throughout the day at other locations. He replies to urgent messages immediately before the lights go out on the other side of the world and then begins reviewing current Requests for Proposals issued by local transit agencies in the USA and Canada.

10:00 a.m. MONTRÉAL/BOGOTÁ

While Larry's day is just getting started, 4,000 kilometres further east at VIA Rail Canada, project engineer Ulf Gustavsson is discussing the current project status and the tasks ahead. At the same time, in Bogotá, Colombia, Dr Claudia Feix, branch manager for South America, is boarding the 10:15 a.m. flight to Cali. A few years ago, the city of two million inhabitants in western Colombia extensively modernised its public transport system with the assistance of IVU.suite.

12:00 p.m. CHILE

In Santiago de Chile it is already midday, yet Andrés Renners is deferring his lunch break for a while longer. He is putting the finishing touches to some documentation to ensure that it reaches the customer in Lima by noon Peruvian time. Meanwhile, project manager Dieter Albertz sets off for a business trip to IVU customer RosarioBus in Argentina.

3:00 p.m. BIRMINGHAM

On the other side of the Atlantic, Alan Bell, Managing Director of IVU Traffic Technologies UK, is

meeting a Train Operating Company to discuss the scope of an implementation of a system for resource planning.

4:00 p.m. AACHEN/BERLIN/ROME

At the same time, the developers of the IVU.realtime.app are gathering in conference room "Konrad Zuse" in the Aachen office for their weekly team meeting. Meanwhile, Nico Weiss at the support hotline in Berlin is happy to have helped a customer successfully resolve their problems with IVU.plan. At this moment at a conference on public transport in Rome, Mario Stefani, head of the Italian IVU branch, starts his presentation on the successful use of IVU.cloud at Italian state railway Trenitalia.

5:00 p.m. TEL AVIV

For Michael Avisar in Tel Aviv, the working day is almost over. In conjunction with management board member Dr Andreas Groß-Weege from Aachen, he is finalising a presentation that he intends to give at JTMT in Jerusalem the following day.

10:00 p.m. HANOI/HO CHI MINH CITY

Frank Nagel, Head of IVU Business Development for South-East Asia, is still dealing with a new customer despite the lateness of the hour. While he checks the documents for a bid submission in Ho Chi Minh City, Alexander Rau is 1,600 kilometres further north in Hanoi, preparing instruction material for IVU and the University of Transport and Communications' joint training centre. He ends the day with a quick reply to an e-mail from Larry so that his colleague in the US can get the information requested before getting his day under way. ■

SAVE THE DATE

IT-Trans

1.3.–3.3.2016, Karlsruhe

IVU User Forum

7.3.–8.3.2016, Berlin

Connecticum 2016

26.4.–29.4.2016, Berlin

CUTA Annual Conference

14.5.–18.5.2016, Halifax

Geomatica Andina

20.6.–21.6.2016, Bogotá

InnoTrans

20.9.–23.9.2016, Berlin

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