IVU NEWS

IVU TRAFFIC TECHNOLOGIES

FLEXIBILITY ON THE TRACK

How railways react to deviations at short notice

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Planning and dispatch at short notice is the freestyle event in rail transport: companies that are well established here can exploit previously unused potential for the entire company. The basis for this is formed by integrated workflows with uniform data storage.

A blocked track, train damage, a points failure – there are many reasons for deviations in operations. No matter what the cause, dispatch must react immediately: find alternative routes, book train paths, find a replacement train, inform passengers, re-schedule shifts, adjust tractive power performance – in short: ensure smooth operation.

"All processes come together in dispatch. This is why good planning is the absolute basic requirement for stable operations," says Oliver Grzegorski, Head of Projects and Sales Rail Business at IVU Traffic Technologies. "Nevertheless, unforeseeable situations can naturally arise at any time. In such cases, dispatch managers must be in a position to act on an ad-hoc basis, and, if in doubt, to make changes that affect the entire process chain."

Which is why it is important that planning and dispatch of vehicles and personnel are completely integrated. To facilitate seamless workflows, IVU.rail, IVU's standard system for rail companies, combines all of resource management in a single piece of software. This ensures more efficient run schedules and duties and it makes it easier to remain flexible when changes become necessary at short notice.

Efficient disruption management

For example, if a train breaks down on a route, dispatch managers must make a whole series of changes in a short time. In order to quickly find a suitable replacement locomotive and assign it to the intended run schedules, IVU.rail automatically suggests all currently available vehicles that meet the required criteria in terms of power or drive type.

This is possible because the system "knows" the planning for all vehicles, including the current position and the planned maintenance times. Naturally, dispatch can also reserve workshop capacities for the damaged vehicle directly and inform personnel dispatch.

Once all tasks have been completely integrated, the crew managers can see straight away what consequences a train failure will have for personnel duties. The new replacement trains that have been put on are also shown directly in the system. The automatic conflict check and suggestions that are in line with the rules for available and suitably qualified employees make it easy to re-assign duties and adjust shift schedules within a short time. All changes land directly in the mobile employee portal; this portal is where employees are informed about duty up-

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Martin Müller-Elschner, CEO

Dear readers and IVU customers,

Railways are going digital. From the rails and the trains to the background system: new technologies are helping to further strengthen the backbone of the railways on every level. Capacities are being upgraded, trains are becoming more punctual, and timetables are becoming more stable. The railway of the 21st century is based on bits and bytes just as much as it is buffers and rails.

At the same time, digitalisation also means connectivity above all. It is necessary to connect processes with one another, use the data that is produced and create seamless workflows. Only then will railways really profit from the "digital dividend". They are becoming more efficient, faster and more flexible. Read how that works in planning and dispatch in our cover story.

We are going one step further with a project that we are implementing together with Stadler. There, we are also responsible for technical integration of the entire passenger information system on the trains. You can find details about this on page 3. On the following pages, you can also keep up to speed with our projects all over the world.

One order from the last few months is a particular honour for us. Since March, we have been supporting DB Long Distance in using its trains more efficiently and more flexibly in future. The new production system based on IVU.rail is replacing a large number of individual solutions. You can find out more about this on page 12.

I hope you find it an enjoyable read!

Best regards

Martin Müller-Elschner

dates. After shift end, the system also transfers the data directly to payroll accounting.

"Continuous data flow is the be-all and end-all for efficient and flexible processes," says Oliver Grzegorski. "Only if all task areas have an overview of the current operating situation at all times can they react to changes in the best possible way. This is important not just in the event of disruption, but also affects the entire resource management of rail companies."

Reacting flexibly

This can even be seen in apparently everyday situations such as the delayed departure of a train. If the railway infrastructure operator changes the assigned track, that must also be reflected in dispatch. An integrated parking management system that displays the scheduled and actual occupancy information in real time provides support in IVU.rail.

But this is only the start of the story. It is also necessary to inform employees and passengers in the train about the change. In a system that closely connects dispatch with all other divisions, this happens automatically: the current track appears on the passenger information displays as well as in the app, and employees are automatically informed via their tablet. This keeps all involved parties up to date at all times.

The challenge of freight transport

Special importance is attached to integrating the planning and dispatch processes in freight transport, where the planning conditions are much more volatile than in public transport: customers change their orders, transport requirements change depending on the season or even the weather, and even track availabilities are frequently not specified until shortly before the service in question is performed.

In addition to long-term annual planning, comprehensive short-term planning is also necessary as a result. This generally begins a few weeks before the production day and influences both vehicle as well as personnel deployment. In every phase of resource planning, it is therefore necessary to take changes to the schedule into consideration at all times and to manage the resulting consequences. This makes it important for planners to have all up-to-date information at their disposal at all times.

Leverage opportunities

Far-reaching process integration helps railway companies to proceed far beyond short-term planning. "As transport figures increase and as services become ever denser on railway lines, railway companies must not just be able to react to what is happening during operations, but also be one step ahead of events at all times," says Oliver Grzegorski. "Flexible processes that facilitate quick acting can offer a decisive competitive edge here."

As such, planning and dispatch increase the entire operating performance thanks to uniform and continuously digital workflows: they improve capacities, optimise processes and create customer-friendly offers.

DIGITAL WORKFLOWS ENSURE **FLEXIBILITY**

EVERYTHING IN ONE SYSTEM – FROM THE VEHICLE TO PASSENGER INFORMATION

The latest technology for Stadler: Based on the currently most advanced standards for passenger information, IVU will be equipping 69 trains from the rail-vehicle manufacturer with new on-board technology over the next few years. As part of this project, Stadler will be renewing 51 GTW vehicles and supplying 18 new WINK multiple units. As the general contractor, IVU is responsible for the entire integration of the passenger information system on board the vehicles. The standard IVU.rail products will also provide the customer with integrated workflows.

Efficient resource management

The vehicle dispatch solution IVU.vehicle supports dispatch managers with all of their tasks to enable efficient, resource-friendly and cost-saving use of all trains – from allocating services to vehicles and planning workshop visits to responding to delays and cancellations. It also gives dispatch managers a constant overview of operations: The system displays the target and actual data of current trips, calculates predicted arrival times taking into account the impact on turnover times and following trips and provides an early warning in the event of any disruptions to allow action to be taken quickly and flexibly. The automatic conflict check ensures that dispatch managers comply with all regulations.

Connected to IVU.vehicle, the land-based background system IVU.fleet coordinates communication with the train drivers and controls all passenger information, including voice outputs and screens inside the vehicles. In addition to the next stops and expected arrival times, the screens also display available connections and their departure times.

Continuous data flow

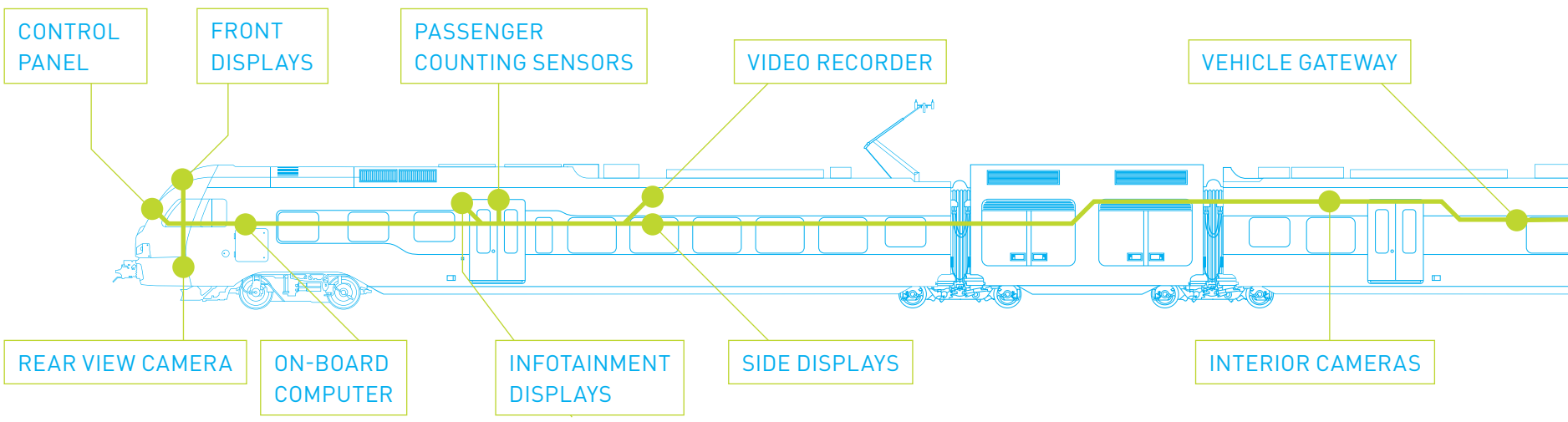
"The wide functional scope of the IVU solution is a particularly decisive advantage for our customers," says Matthias Rust, CTO of IVU. "It enables them to combine various operational processes in a single system and to establish fully integrated workflows." At the same time, thanks to its modular structure, IVU.rail can be precisely customised to meet individual needs.

The on-board computer software IVU.cockpit controls all the information technology in the Stadler trains. In addition to driver terminals, on-board computers and passenger information displays, this includes the camera systems for passenger compartment surveillance, passenger count sensors, routers and other communication technology. IVU.cockpit connects the data from various sources, formats it and ensures a continuous flow of data within the train and to the control centre. A particularly innovative highlight for passengers: The exterior displays indicate the passenger load of the individual coaches, which helps boarding passengers to find a seat faster.

Everything from a single source

"This project is particularly important for us," says Matthias Rust. "Alongside our tools for efficient resource planning and dispatch, we are providing a complete control and passenger information system for rail operations in a single project for the first time, and in doing so, we are seamlessly integrating all operational areas, from the vehicle to the passenger."

The implementation of the passenger information system represents one of the most extensive applications of the ITxPT standard for uniform IT systems on board public transport vehicles. In 2014, IVU was the world's first manufacturer to implement the IBIS-IP protocol for its customers. The first Stadler trains will be commissioned at the end of 2020.



ABOUT STADLER

From intercity and high-speed trains, from regional to commuter trains, from suburban railways to underground railway: the Swiss rail-vehicle manufacturer Stadler has been ensuring for over 75 years that passengers worldwide reach their destination quickly and safely.

Founded as an engineers' office in 1942, the company has been manufacturing its own locomotives since 1945. In 1995, it presented the first of its own passenger trains, the GTW 2/6, to the public. International expansion began in 2000 with the Berlin-based Stadler Pankow GmbH. Today, Stadler has a global workforce of around 8,500 and records annual revenue of CHF 2 billion.

The Stadler WINK, a convertible, innovative short train for local transport, is the latest regional train model, and has been manufactured since 2017. The two-part, low-floor train is designed for branch lines and allows a large number of different drive configurations.

INFORMING PASSENGERS

When will the next train arrive? Will I still make my connection? Passengers expect up-to-date information. Whether this is on screens at train stations or on the train itself or via the smartphone app – passengers are kept informed about departures and changes any time, anywhere. To ensure that all the necessary data is transmitted from the train to dispatch and on to the passengers in real time, rail companies need a powerful background system that connects all areas and guarantees continuous data flow. To achieve this, transport companies rely on solutions from IVU: IVU systems keep passengers up to date in Vietnam, Warsaw, Rotterdam and many other locations around the world.

DIGITAL WORKFLOWS IN VIETNAM

Planning and managing the deployment of 380 locomotives and 5,000 railway cars effectively every day is no easy task. Especially if the rail network runs through the entire country and has to provide means of transport for around 91 million inhabitants. This is why in Vietnam, the state railway company Vietnam Railways (VNR) relies on software support from IVU. The state railway enterprise plans, dispatches and manages its daily operations as well as passenger information using IVU.rail.

The special thing about this project is the variety of railway traffic that the Vietnamese state railway company handles on a daily basis. This is because different rules and regulations apply to passenger and freight transport that have to be incorporated by the software system used. In addition, a new module was created especially for rail freight transport that informs VNR's cargo customers about the status of their orders in real time via a web interface. And travelling through Vietnam is now far more comfortable for passengers, too. At the stops of the long-distance railway stations, they are provided with the current departure times of their trains.

The Vietnamese state railway uses the latest technologies for communication between the control centre and the driver as well. Here, voice radio is now transmitted via voice over IP. The data rates of this communication procedure are significantly higher than with analogue radio solutions. Moreover, the procedure allows voice and data radio to be processed via public (and therefore cost-effective) networks at the same time. To this end, all locomotives have been equipped with on-board computers from IVU.

TRAVELLING IN COMFORT
Thanks to IVU.rail, passengers on the Vietnamese state railway are always kept informed of the current departure times of their trains.

CONNECTION INFORMATION IN THE ROTTERDAM METRO

The Rotterdam metro is the oldest underground railway system in the Netherlands. Every day, more than 300,000 people use the five lines that connect the city with the surrounding area. The RET (Rotterdamse Elektrische Tram) transport company operates over 165 underground trains to ensure regular transport. Roughly half of these had been equipped with a modern passenger information system. A complete solution from IVU takes over the entire administration and processing of real-time data up to the presentation on the information displays.

"Being commissioned by RET represents an important milestone for us," says Wim Dujardin, project manager at IVU. "Here, our system for real-time information in vehicles is being used in rail-only operation." Hakan Zor, manager fleet management at RET, adds: "Above all, it was IVU's many years of experience that convinced us. A further advantage was that IVU was capable of providing an integrated solution."

The central database IVU.fleet.data manages RET's network, timetable and schedule data for these vehicles. IVU's background system uses the current real-time data to calculate the deviations and passes them on to the trains, where they are displayed on the passenger information screens. The interface for these screens is also provided by IVU. In addition to the next stops and expected arrival time, it also displays available connections, information on disruptions and advertisements.

The IVU.cockpit system that runs on the driver operated on-board computers provides the drivers with all the important information on the timetable situation and controls all the passenger information in the trains, including the screens and passenger announcements.

MODERN PASSENGER INFORMATION FOR WARSAW

The WKD (Warszawska Kolej Dojazdowa) rail system links Warsaw with its suburbs in the southwest. As part of extensive modernisation, the company has now implemented an IVU passenger information system.

Using twenty-one modern multiple units, WKD conveys around eight million passengers annually to and from the Polish capital across a distance of 33 kilometres with 28 stop points. This makes the connection between Warsaw and Grodzisk Maziwiecki one of the most frequented railway lines in the country.

In recent years, the company has invested heavily in modernising and expanding its services becoming the most punctual railway operator in Poland. To further boost the attractiveness of its services WKD now informs its passengers of current departure times in real time.

The IVU.fleet background system continuously processes location data from the vehicles and displays them in the graphical dispatch view. Directly connected to the system, IVU.realtime transmits actual data to over 100 stop displays at stations, as well as to smartphones and the internet, using the Unified Realtime API.

The user interface in the IVU system is provided entirely in Polish. In addition, a bilingual text-to-speech application allows automatic loudspeaker announcements to be given in Polish and English.

IVU.rail
IN USE WORLDWIDE

VIA RAIL
CANADA

Planning and optimisation of duty schedules for more than 1,200 train drivers, train attendants and other on-board personnel, some of whom travel for several days.

SJ
SWEDEN

Development of a uniform planning and dispatch environment for the entire resource deployment of the largest railway company in Sweden.

VR GROUP
HELSINKI, FINLAND

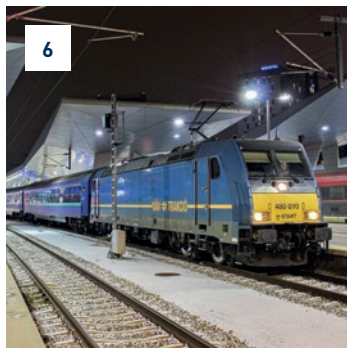
The Finnish state railway plans and schedules regional trains as well as drivers and train personnel in a unified system.

TRANSDEV
GERMANY | SWEDEN

Planning and dispatch of vehicles and personnel in two countries for one of the world's leading private transport companies.

ABELLIO
BERLIN, GERMANY

Complete resource management from planning and optimisation to billing for one of the largest regional railways in Germany.



MÁV-START
HUNGARY

Integrated planning and dispatch of around 1,000 locomotives and 9,000 employees in a standardised process landscape.

TRENITALIA
ROM, ITALY

Around 14,000 employees and 8,000 train journeys per day – the Italian state railway plans and schedules integrated with IVU.rail in IVU.cloud.

BEM
BANGKOK, THAILAND

Timetabling, vehicle scheduling and duty rostering for the Bangkok metro lines MRT Blue Line and MRT Purple Line with over 400,000 passengers daily.

KLIA EKSPRES
KUALA LUMPUR, MALAYSIA

Planning, scheduling and optimisation of duty rosters and vehicle rotation plans for vehicles and more than 300 employees of the airport express connection.

DPTI
ADELAIDE, AUSTRALIA

Planning and optimisation of the entire vehicle and personnel deployment as well as comprehensive scenario calculation for the Adelaide Metro.

BERLIN (HEADQUARTERS) | AACHEN | OLTEN | VIENNA | VEENENDAAL | PARIS | ROME | BIRMINGHAM | BUDAPEST | ISTANBUL | SAN FRANCISCO | BOGOTÁ | SANTIAGO | HANOI

INVOLVING EMPLOYEES

Train drivers, conductors, shunting staff – employees are the key resource of railway operations. Dispatch managers face the daily challenge of allocating this resource: Which train driver has the right qualifications for which train? What is the best way to incorporate employee holiday and time-off requests into roster layout planning? And what legal work time regulations and operational provisions need to be taken into account? But the work isn't over once dispatch managers have finished allocating duties. They need to monitor duty sign-ons, provide replacements as quickly as possible in the event of cancellations and provide all data for payroll accounting. IVU.crew and IVU.pad can help them to tackle these highly complex tasks.

FAIR DUTY SCHEDULES WITH IVU.crew AND IVU.pad

The right employee in the right place at the right time: IVU.crew supports the entire personnel dispatch process and ensures that all employees are where they need to be – whether that is in the driver's cab of a train or operating a lifting platform in the workshop.

IVU.crew has the right tool for every procedural step, ranging from long-term roster layout and holiday planning to daily dispatch and precise settlement and evaluation. Overtime, sickness, covering shifts – IVU.crew automatically transfers every modification to the integrated payroll accounting function and makes it easier to correctly record the duties performed.

All planning phases benefit from powerful optimisation algorithms. During the process of devising weekly schedules and roster layouts, IVU.crew calculates the optimal outcome based on freely configurable rules, be it a resilient duty schedule, satisfied employees or efficient operations. Automatic personnel dispatch (APD) also takes into account employees' preferences, qualifications and absences, ensures balanced work time accounts, and makes sure that duties are fairly allocated.

IVU.crew and IVU.pad are closely linked: The offline web app keeps driving staff, customer service advisors and office-based employees in the loop – any time, anywhere. Important documents such as duty schedules, manuals and forms are always available and personalised to the user. All information is always right up to date.

IVU.pad also supports the most important operational processes: Holiday planning, duty requests, duty swaps – digital dispatch speeds up workflows and improves employee communication. This results in a totally digital information loop that benefits not only staff, but the entire company.

ALWAYS UP TO DATE
Trenitalia schedules and dispatches around 14,000 employees using IVU.crew. IVU.pad allows drivers to access their allocated duties any time, anywhere.

AVG: DUTY SCHEDULE AT ONE'S FINGERTIPS

Since the timetable change in 2018, Albtal-Verkehrs-Gesellschaft (AVG) has been carrying out integrated planning of all vehicle working schedules and duties for its tram-trains with the standard solution IVU.rail. As part of the introduction, over 500 train drivers received new tablets with IVU.pad to incorporate them in dispatch more effectively and speed up processes.

Reporting duty signons, viewing duties, displaying time sheets and submitting duty requests – all of this is now done digitally at AVG. During the trip, the app assists the train drivers with daily working timetables as well as details of speed restrictions and other important operational information. In addition, drivers receive specific duty information and announcements via IVU.pad.

The tablet is part of a comprehensive overall solution for a continuous digital workflow in planning and dispatch. Furthermore, IVU.rail speeds up processes at AVG through a host of automated functions. Planners now have integrated duty and vehicle working scheduling with an optimisation core that ensures better duty schedules. Automatic personnel dispatch suggests optimum duties for drivers at the touch of a button – taking into account the preferences submitted in IVU.pad.

"For AVG, the introduction of IVU.rail and IVU.pad means that our operations are much more modern and efficient than before," says Ascan Egerer, Managing Director of AVG. "Personnel dispatch and the employee portal are a milestone and a big leap forwards in terms of quality. Our drivers now receive all duty schedule changes in real time and are therefore always up to date. This new feature is a major step for us, particularly with regard to recruitment."

DIGITAL WORKPLACES AT AVA

The drivers working for Aargau Verkehr AG have digital workplaces. This is enabled by the IVU.pad. The app contains all information that the approx. 170 bus and train drivers need for their duty, making dispatch and operational processes quicker.

The IVU.pad displays up-to-date, personalised messages about forthcoming journeys and vehicles and automatically synchronises all key documents. In addition, it gives drivers optimum support in their day-to-day work with a dynamic timetable (for rail operations), damage assessment and an e-learning module. AVA's drivers are able to use the IVU.pad to enter their working hours on the move, submit holiday requests and view current messages from the dispatching unit. The integrated interfaces connect the IVU.pad to the corresponding peripheral systems and ensure seamless data transfer.

"With the IVU.pad, we can digitalise the entire workflow of our drivers," said Andreas Kleiner, Head of Dispatching and Planning at the former transport company AAR bus+bahn. "All the key information is available in fully electronic format. This saves lots of time and paper and ensures more-efficient processes and up-to-date information."

As the rollout progressed, IVU has been gradually incorporating new functions in the system, and these are now also available to all other IVU.pad customers. "Our integrated approach – particularly in combination with our planning solutions – is attracting a positive response," said Marc Schaffert, Managing Director of IVU Switzerland. "This is also clear from the numerous enquiries from our customers about the IVU.pad."

SWITZERLAND: THE MODEL

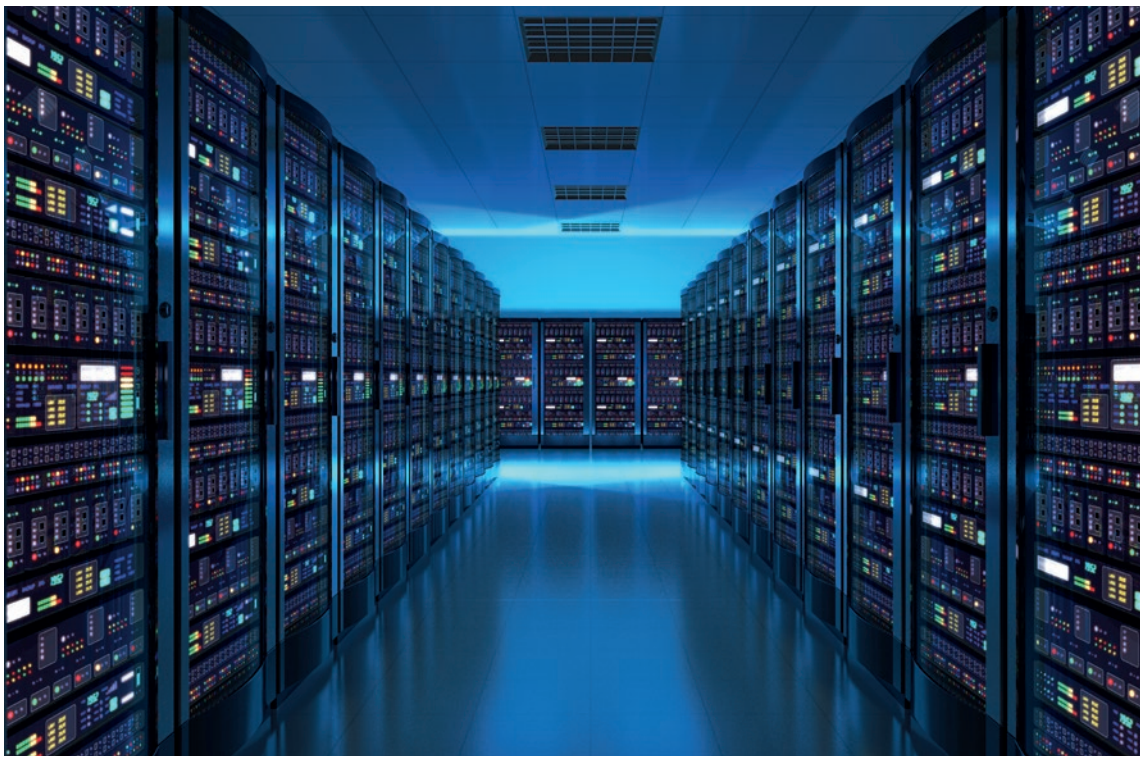
A dense network of various means of public transport, the only one of its kind in the world, makes Switzerland one of Europe's most dynamic and important transport markets. The claim of public transport: from the most remote place to the next largest city in just under an hour – and with no delays, either.

To achieve that, the alpine country invests a lot of money in its railway network. Switzerland is currently spending €362 per capita on railway infrastructure every year and is thus leading the way in Europe. In 2016, the Gotthard Base Tunnel came into operation. At 57 km, it is the longest railway tunnel in the world. And the investment is paying off. Nowhere in Europe do people travel more frequently and further by rail than in Switzerland – to the great benefit of the environment.

DEPLOYING RESOURCES

Intercity, regional, freight transport – all rail companies are facing complex challenges. The aim is to maximise efficiency, not only with regard to the trains and tracks, but also internal processes and workflows. IVU systems support rail companies with both: They optimise rail transport and help to speed up workflows and reduce overheads. IVU takes care of all the hosting for its systems as required, as well as the technical operations management. This eliminates the need to purchase, operate and maintain complex server systems, meaning rail companies can focus on what really matters: getting the most out of all their resources. And this works particularly well with Europe's leading resource management system.

PLANNING AND DISPATCH IN THE CLOUD



"INSTEAD OF COORDINATING MULTIPLE SUPPLIERS, WE RECEIVE THE **ENTIRE SERVICE FROM A SINGLE SOURCE**."

Swiss rail services are efficient and reliable – and so is Swiss freight transport. SBB Cargo transports over 200,000 tonnes of freight by rail right across Switzerland every day. This is handled by around 320 locomotives and 2,200 employees, planned, dispatched and deployed by the transport company via the integrated standard solution IVU.rail. For a little while now, the Swiss Federal Railways subsidiary has been hosting the system entirely in the IVU.cloud.

With its simple scalability, the IVU.cloud can be flexibly adapted to the respective computing requirements of SBB Cargo. Linked via a secure connection, up to 150 people work simultaneously on the high-availability servers provided by Amazon Web Services. All details of technical operations management from user administration to error handling are closely coordinated with SBB Cargo. IVU engineers have direct access to the IVU.cloud so that they can regularly import updates and new releases, thus keeping the system constantly up to date.

"The collaboration with IVU has gone really well. Compared with a local installation, the IVU.cloud, enables us to achieve solutions more quickly, and receive patches and new releases from IVU.rail straight after they come out," says Michel Thüring, Head of IT Production at SBB Cargo. "Instead of coordinating multiple suppliers, we receive the entire service from a single source with the IVU.cloud, allowing us to respond quickly to changes and adapt the system flexibly."

COPENHAGEN LETBANE

A new suburban railway for the Greater Copenhagen area: the Letbane på Ring 3 – a 28-kilometre network with 29 stops. Starting from 2025, the suburban railway will transport passengers from the Lyngby municipality in the north of Copenhagen to Ishøj in the south west in just under an hour. IVU is providing a complete system for fleet management.

Over the course of the project, all vehicles will be fitted with an IVU.box.touch on-board computer with the control software IVU.cockpit. The ITCS IVU.fleet continuously processes vehicle location data, which helps the dispatch managers to react quickly and appropriately to changes in the traffic situation. The passenger information system IVU.realtime provides the incoming actual data in real time – on digital displays, online and via an app.

MANAGEMENT CONFERENCE

"IT for Rail": Around 30 representatives of international railway companies discussed digitalisation

Digitalisation is changing the railway sector from the bottom up. Efficient IT systems are the key to successful rail operations – this was one of the main findings of the IT for Rail management conference held in London on 16 and 17 May 2019. Around 30 top managers from renowned railway companies accepted the joint invitation from Arriva UK, MTR Crossrail and IVU.

IN STEP WITH THE REGION

IVU.rail is the leading completely integrated resource management system for railways in Europe. Next to national railways such as SBB Cargo (Switzerland), Trenitalia (Italy), DB Long Distance (Germany), SJ (Sweden), VR Group (Finland) and MÁV-Start (Hungary) particularly regional railways opt for the IVU standard system. In Germany, IVU customers alone operate over 80% of the regional rail passenger transport. We would like to present three of them here:

DB REGIO

Planning and dispatching vehicles and personnel in one system – this is what the largest German regional public transport supplier will be able to do in the future, thanks to IVU.rail. DB Regio will replace the existing planning and dispatching systems uniformly with the IVU solution. In the future, all of DB Regio's transport networks will conduct their rail-related resource planning and dispatching through the integrated IVU standard system.

START

From Hamburg to Cuxhaven: In 2019, Transport company Verkehrsgesellschaft Start Unterelbe mbH, a subsidiary of regional transport operator Regionalverkehre Start Deutschland GmbH, has taken over the RE5 regional express route in Lower Saxony and Hamburg. The company is using IVU.rail to plan and dispatch all vehicles and employees. Thanks to the standardised introduction process, it took less than three months to launch the entire system.

NETINERA

As one of the largest private public transport companies in Germany, NETINERA, a company of the Italian national railway FS, operates numerous regional railways, which together account for a market share of around 5% of German regional rail passenger transport. With 358 trains and more than 4,600 employees, the NETINERA Group covers 52 million train kilometres per year. Currently, the company is preparing to switch to IVU.rail.

SAVE THE DATE

VöV General Assembly
5–6 Sep 2019, Appenzell

Hypermotion
26–28 Nov 2019, Frankfurt

ElekBu
4–5 Feb 2020, Berlin

IT-Trans
3–5 Mar 2020, Karlsruhe

IVU User Forum
23–24 Mar 2020, Berlin

DB LONG DISTANCE: NEW PRODUCTION PLATFORM

Deutsche Bahn (DB) is successively stepping up its deployment of digital technologies in vehicle planning, preparation and maintenance. One aim of this is to make travel simpler and more convenient for customers. In addition, planning of long distance services is becoming ever more challenging, for instance due to the increase in roadworks, and increasingly requires digital solutions.

More digitalisation

To cope with this, DB is setting up a new digital production platform for its Long Distance division in conjunction with IVU. It will be used to gather and process all operational information relevant to the deployment of long-distance trains. Based on this data, it will be possible to deploy trains and train personnel even more efficiently and manage them even more effectively in the future.

"The new platform marks a big step forwards for us in terms of standardisation and digitalisation of processes," says Dr Philipp Nagel, Head of Production at DB Long Distance. "This allows us to speed up and improve our decision-making. Our customers rightly expect stable rail services, and we are laying the foundation for this with this platform."

Efficient disruption management

One major advantage of the new system is that the impacts of unexpected disruptions to operations can be identified and rectified more quickly. Furthermore, the modern integrated IT system will replace a host of IT applications currently in use.

IVU came out on top in a Europe-wide call for tenders. The basis of the new production platform is the standard product IVU.rail, which is already used by numerous railway operators worldwide.

Start in 2020

"This order is one of the most important in IVU's history. It underlines our position as a leading system supplier for railway operators," said Martin Müller-Elschner, CEO of IVU. "Of course, we are particularly proud to now also support Deutsche Bahn with the efficient deployment of their trains and personnel in long distance transport."

The first parts of the new platform will be tested in-use from the end of 2019. Train journeys planned with the new production platform will then start when the timetable changes in December 2020.

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