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IVU TRAFFIC TECHNOLOGIES

HIGH PERFORMANCE, STRAIGHTFORWARD UPDATES, LESS HASSLE – THERE ARE PLENTY OF ARGUMENTS IN FAVOUR OF THE CLOUD. MORE SPECIFICALLY, RAILWAY COMPANIES CAN GREATLY BENEFIT FROM THE OPTION TO OUTSOURCE THEIR RESOURCE PLANNING TO AN EXTERNAL DATA CENTRE AND COMMISSION A THIRD PARTY TO PERFORM ALL TECHNICAL MANAGEMENT TASKS AS A SERVICE. IN RECENT YEARS, GERMAN IT-SPECIALIST IVU TRAFFIC TECHNOLOGIES HAS GAINED EXTENSIVE EXPERIENCE BY MANAGING THEIR LEADING RESOURCE PLANNING SOLUTION, IVU.RAIL, USING THE SOFTWARE-AS-A-SERVICE MODEL.

Terms such as 'data centre', 'cloud' and 'software as a service' (SaaS) are becoming increasingly common, but what do they actually mean? What is the cloud all about? The following article outlines these concepts and describes how they can benefit railway companies. The focus here will be on resource planning, which sets exacting standards for the performance and stability of IT systems.

The Cloud Concept: A Secure Data Safe

Data centres form the backbone of all cloud concepts. These are facilities containing a large number of servers, along with all the accompanying technical components and infrastructure. The most significant advantage of this centralised and specialised structure is the guaranteed security and availability of all data.

Data centres are subject to stringent security standards that most companies are not in a position to fulfill within their own facilities. Each data centre has an energy supply that is secured at multiple levels to provide enough electricity for the servers and air-conditioning systems required to cool the computers. The connection to the power supply is usually redundant and is established via at least two independent power stations. This means, in the possible case of one power station failing, energy to the data centre will remain uninterrupted, as power will then automatically be sourced from the other station. And if the external power stations fail completely, large power generators are present to provide an emergency power supply for several days if necessary.

A data centre is also equipped to deal with a broad range of other possible incidents. Strict building regulations prevent damage caused by storms and floods; high-sensitivity sensors can instantly detect a fire breaking out; and special gas extinguishers are on hand to contain any fires without damaging the sensitive hardware.

In addition to physically protecting the computers, certified data centres safeguard the stored data in accordance with ISO/IEC 27001. Various security mechanisms are in place to prevent hackers or unauthorised individuals from accessing information or disrupting operations. This is why it is actually better to store data in an external data centre than in an in-house server room.

Software as a Service: Everything from a Single Source

If a company not only operates its systems in the cloud, but also outsources the daily management of its software, this is known as 'software as a service' (SaaS). This principle offers a range of advantages, including: the installation of patches and updates; the exchange of defective server components and old hardware; an emergency response in the event of component failures – all this is taken care of by the service provider itself. This means that companies receive the full package from a single source.