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DB System*

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INDUSTRY Information Technology: Service Provider for German Railway Company

SOLUTIONS **File and Content**
Hardware — Hitachi Content Platform
Services — Provided by Hitachi TrueNorth™ Partner Intercom Computer Systems



DB Systel Ensures Railway Data Is Sustainable and Secure with Hitachi Content Platform

A leading information and communications technologies (ICT) provider in Germany, DB Systel boasts two data centers with 3600 different servers. Its IBM® mainframe is still able to hold its own, supporting a large volume of the company's application data. However, to ensure that data is saved in a manner that is both sustainable and secure, DB Systel opted to employ the Hitachi Content Platform. The storage system is connected via an interface provided by the connectivity specialists at Hitachi TrueNorth™ Partner Intercom Computer Systems. The resulting solution is an ideal archive system for mainframes.

DB Systel is a subsidiary of the German National Railway Company, Deutsche Bahn. The rail company has undergone a huge transformation in recent years. The continued construction and development of high speed lines means the company is now able to offer a wide range of modern transport services. But it is not only the flow of traffic which has risen; a marked increase in data flow has also been recorded.

"In the past, archiving was not quite so vital," said Wolfgang Eicher, who is responsible for archiving the mainframe data at DB Systel. "Over the last 20 years, however, companies have become increasingly aware of its importance. 9/11 and the associated data protection issues, as well as increasing volumes of data have added new dimensions to the archiving discussion."

Data immutability and varying record retention periods are the principal requirements for an archiving system, even ahead of speed and reliability. The previously installed jukebox systems were no longer suitable to meet the long-term needs of DB Systel. As early as 2005, plans were underway within the company to replace the old system. "We are taking measures to ensure that we comply with all the guidelines and specifications: for example, implementing the correct call for tender procedure. After all, as a company, we still belong to the public," says Eicher. When the jukeboxes began to experience technical problems in 2009, the company decided that the time had come to press ahead with their plans to implement a new system.

From Tapes and Optical Disks to an Audit-compliant Disk System

There was, however, one obstacle to be overcome during the changeover to the new storage system: linking the static mainframe environment to the dynamic open systems world. The required connection was established via an interface, which had been developed by Intercom. "Hitachi Data Systems helped get this project off the ground. Together we were able to prove to DB Systel that we had found the best solution," says Intercom General Manager Reinhold Meder. "Using the archive controller, we were able to create a virtual optical disk library from the Hitachi Content Platform (HCP) disk-based archive system. As a result, we have achieved the required level of compatibility with all the relevant applications, and we can connect HCP to the (IBM) FICON® and ESCON® channels on the IBM mainframe."

Once a connection had been established between the archive and the mainframe, teams got to work installing the archive and interface at the start of 2010. Two HCPs, each with 50TB of storage capacity, were constructed as fully partitioned systems. The most stringent security regulations were observed by the project managers. The fact that the systems run in various locations and on various networks is just one of a wide range of measures taken to maintain a high level of security. Physical data protection is guaranteed by RAID and object mirroring. Secure access methods and protocols, which comply with all data protection guidelines, as well as asynchronous data mirroring further enhance the security of the system.



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Wolfgang Eicher
DB Systel

The archive system itself is also a key component. “With the Hitachi Content Platform hardware, the logic is already taken care of,” states Archive Solutions Manager at Hitachi Data Systems, Dirk Walde. “The system is able to save data in line with the relevant guidelines until it no longer needs to be archived. The system ensures the constant integrity and immutability of the data.”

Following installation in March 2010, the team performed function tests, all of which ran smoothly. There was nothing else standing in the way of the migration process, which took place the following month: 1.5TB of data were transferred to the new archive. All the jukeboxes were switched off for good at the end of May, and the systems were uninstalled and disposed of. “The transition ran smoothly with no hitches whatsoever. The users were not affected. There are still 40,000 to 50,000 users working on the mainframe at the same time,” says Eicher. “People were getting suspicious — that’s how well it went,” he adds. “The project team cannot be faulted in any aspect of its work, from the relocation right down to the project documentation, including the LUN stage.”

Enhanced Performance Attracts More Customers

Although data integrity is the prime concern at DB Systel, performance levels also played a part in the decision to switch to this system. The “SAIN” concept (SAN plus array of independent nodes) offers higher levels of reliability, scalability and performance than other systems. “Jobs that would have taken at least a minute when processed with the jukebox system take less than a second with HCP,” says Walde. “This results in a significant time savings over the year when calculated against the number of jobs.” In addition, the system is ideally configured for integration into the highly dynamic infrastructure of Hitachi storage. The open interfaces as well as the digital signature and optional encryption functions also played a key part in DB Systel’s decision. The direct SAP connection and the data compression function were plus points, as well.

DB Systel is using this performance boost to its advantage. Not only does the system cater to the company’s own data needs, but its success has also attracted other rail subsidiaries to express an interest in archiving data with DB Systel. Even external businesses now feature in the IT service provider’s customer portfolio. Alongside a number of smaller operators, larger companies such as Schufa have also bought disk space and mainframe MIPS.

“We have seen a marked increase in the levels of satisfaction among end customers,” concludes Eicher. An increase in the volume of data is already a given, but there is enough capacity to ensure that the current systems remain in place for quite some time. DB Systel also has plans to increase its own use of the archive in the future. HCP will score yet more points with regard to future expansion options, as the intelligence data and the disk memory can be upgraded separately. All this means that Hitachi Content Platforms with their Intercom interfaces are ideally placed to play a substantial role in the influential IT landscape at DB Systel.

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