



DATA CENTRE CONSOLIDATION KEEPS RAILWAYS ON TRACK

Guaranteeing a set level of service led to smooth management of Deutsche Bahn's IT systems

DATE: 30 March 2009

CASE STUDY

Challenges

Deutsche Bahn (DB) has around 230,000 employees worldwide, based in 1,500 locations in 150 countries. Since being privatised in 1994, it has become the largest transport undertaking and the largest infrastructure enterprise in Europe and the second-largest transportation and logistics services provider in the world. It manages more than 35,000 kilometres of track and in 2006 some 1.85 billion people travelled on Deutsche Bahn's trains and it transported nearly 300 million tons of freight.

Given the scale and complexity of the company's rail services, Deutsche Bahn relies heavily on its IT systems to manage its commercial and operational processes, such as ticketing, timetabling, logistics planning, maintenance scheduling, purchasing and business management. Indeed, many of the systems developed by its IT services organisation DB Systems are operational 24 hours a day. DB Systems designs and operates ground breaking computer science solutions as a full service IT provider. Its strengths are its sound knowledge of the transportation and logistics market and its comprehensive know-how in data processing. DB Systems employees about 2,100 people and is headquartered in Frankfurt am Main.

Antonius Schröder, IT Platform Operation Department Manager, DB Systems, says, "With dozens of business-critical applications and more than 80,000 internal users to support one of our greatest challenges in providing the highest level of service to our passengers is maintaining the availability and performance of our IT system."

Solution

Fujitsu's relationship with Deutsche Bahn began in 1996 when it supplied the company with its first Sun systems and assisted in designing, developing and also operating Germany's largest SAP R/3 installation, serving more than 4,500 users, which is used to proactively manage all maintenance and repair work on rolling stock in order to minimise any operational delays.

Fujitsu also originally managed Deutsche Bahn's UNIX systems, but when DB Systems set-up its own UNIX data centre Fujitsu trained its employees so that they could take over responsibility. Fujitsu now provides a range of consultancy and professional services, from project management to specialist technical expertise, which DB Systems can call on whenever they are needed. One of Fujitsu's other core activities is the day-to-day maintenance and repair of Deutsche Bahn's Sun Solaris-based systems, covering around 800 logical servers that are used to run a wide range of business critical applications. Under the contract Fujitsu must meet very stringent response times in order to maximise system availability, or face financial penalties. For the most critical systems this means getting an engineer on site with the necessary parts within two hours, and then fixing the problem and getting the system back-up and running within a total of four hours.

From its European Support Centre in Munich, Fujitsu provides first-line support for all of DB Systems' Sun Solaris servers. If problems cannot be resolved immediately then they are escalated



to Fujitsu's support engineers. For vital corporate applications like Deutsche Bahn's train repair, route planning/timetabling, cargo management and ticket sales applications any downtime can have an extremely adverse effect.

Antonius Schröder continues, "We chose Fujitsu to maintain our business critical infrastructure because we wanted to ensure

Consolidation
of the data centre
systems has identified
potential cost savings
in the region of
€1 million or more

that we always had high availability systems. Fujitsu provides a single point of responsibility for any support issue, so once a problem is identified Fujitsu takes over and ensures that it is dealt with swiftly and efficiently and with as little disturbance to our business as possible"

Fujitsu has also undertaken the planning and implementation of a number of data centre relocations for Deutsche Bahn, which were completed without disruption to the continuing operations of its systems. For example, when Fujitsu moved the company's Munich data centre to Berlin more than 300 server systems, running many mission critical applications and storing 150Tb of data, were physically moved across the country and re-commissioned within just 48 hours. In addition, Fujitsu has improved the utilisation of existing server space by consolidating system storage and improving capacity planning, and so avoided the expense of buying additional hardware.

"With Fujitsu's committed support, our data centre relocations have always gone like a dream," comments Antonius Schröder. "And thanks to its work in consolidating, tuning and optimising our server environment we have been able to make substantial cost savings and improve the overall quality of our IT services."

To ensure that all new applications developed by DB Systems integrate successfully and work effectively with the rest of Deutsche Bahn's IT environment, Fujitsu's project managers support the technical project management and organise and manage all of the necessary acceptance testing. It has also established the performance tuning and optimisation methods (system audits) for ongoing business processes, so that there is an increasing level of systems availability through its proactive work with the operational management team.

Benefits

By choosing Fujitsu to manage its Sun Solaris systems Deutsche Bahn is benefiting from:

- **Cost savings** – consolidation of the data centre systems has identified potential cost savings in the region of €1 million or more and reduced capital investment in new hardware by 20%
- **Economies of scale** – through the centralisation of management tools and processes, rationalisation of the server estate and shared access to IT resources
- **Optimised system performance** – services are all proactively managed against stringent service levels (SLAs) and system restoration time is guaranteed
- **Minimal business impact** – any issues are resolved faster, minimising business disruption and enabling users to continue working longer
- **Access to specialist resources** – Fujitsu's extensive management, technical, operational and commercial expertise is available on an "as needs" basis
- **More flexibility** – Fujitsu can respond very quickly to new technical, business and customer requirements
- **Simplified supplier management** – using Fujitsu as a single point of contact for all service management issues reduces management time and overhead costs
- **Ability to focus on core business** – staff and financial resources can be concentrated on future requirements and higher value activities, rather than the underlying technology and processes.

"Fujitsu's proactive and responsive management of our Sun environment is delivering tangible benefits to our business in terms of much higher system availability and lower costs," adds



Antonius Schröder. “But the other real advantage of working with Fujitsu is that it offers all of the advantages of working with a large company and yet it is still flexible and manoeuvrable enough to give us the kind of service we want and like.”

Fujitsu’s approach

Under the maintenance contract with DB Systems Fujitsu has guaranteed to meet the agreed SLAs – or pay a financial penalty.

As such, it is to both organisations’ advantage for Fujitsu to continually evaluate and introduce the very latest management techniques and advanced technologies.

“Our business simply cannot afford to be without its core commercial systems as any downtime can cost us millions of Euros. So, Fujitsu’s willingness to guarantee the level of service that it provides totally de-risks the management of our IT systems,” says Antonius

We have been able to make substantial cost savings and improve the overall quality of our IT services

Schröder. “In fact, Fujitsu has always delivered. It regularly exceeds its contracted SLAs with nearly 100% conformance and has never had to make a penalty payment. It’s trouble-free computing.”

Fujitsu’s expertise

With over 40 years’ experience in designing and building data centre systems, as well as data centre operations, Fujitsu has a depth of knowledge and experience that is hard to rival. With its TRIOLE approach it has also defined an exceptional new standard for data centre systems’ reliability, performance and cost effectiveness.

“Fujitsu has worked with DB Systems for over 10 years and the close collaboration between the two organisations in dealing with the many

challenges and issues along the way has created a strong base for an ongoing partnership,” explains Antonius Schröder. “Its customer satisfaction and performance rating are consistently eight or more, because Fujitsu understands the pressures that we face and is always willing to go out of its way to ensure that we are well placed to meet them.”

SUMMARY OF KEY FACTS

Organisation: Deutsche Bahn AG, DB Systems GmbH Service/s delivered: Management and maintenance of the Sun Solaris environment, including data centre: migration, consolidation, support, project management and professional services

Key metrics

- 80,000 IT users
- 800 logical Sun servers

Benefits

- **Cost savings** – consolidation of data centre systems will save €1 million or more and cut new hardware costs by 20%
- **Economies of scale** – through centralised management, server consolidation and shared access to IT resources
- **Optimised system performance** – services are all proactively managed against stringent service levels
- **Minimal business impact** – any issues are resolved faster, minimising business disruption
- **Access to specialist resources** – Fujitsu’s management, technical, operational and commercial expertise
- **More flexibility** – Fujitsu can respond very quickly to new technical, business and customer requirements
- **Simplified supplier management** – have a single point of contact for all service management issues
- **Ability to focus on core business** – can concentrate staff and financial resources on higher value activities ●