

IHK-Gfl boosts performance and delivers multimillion savings

Optimizing response times and ensuring system scalability and data security with IBM DS8700

Overview

The need

IHK-Gfl needed a storage system that was fast—at all times. Performance was inadequate during peak load times, which inhibited business growth, and data security was undermined by slow system backups.

The solution

IHK-Gfl implemented IBM® System Storage® DS8000® series arrays and IBM ProtecTIER® to improve data storage performance and ensure greater availability, security and scalability.

The benefit

Improved storage performance ensures that applications are highly responsive even as the volume of data grows. Backups are 30 percent faster than before, and data replication is almost instantaneous.

With its headquarters in Dortmund, IHK-Gfl provides a variety of IT services to around 8,000 users in the 80 chambers of commerce and industry in Germany. The organization hosts an ERP application used by approximately three-fourths of its customers, and it also supports them through business process outsourcing and data management. One of the principal aims of IHK-Gfl is to provide users with an outstanding quality of service, enabling its customers to conduct their business with minimal IT disruption.

As demand on its systems grew, IHK-Gfl realized that it needed to address a critical system performance issue. During peak times of activity, with very high demands on online transaction processing, customer systems suffered from poor performance.

Andreas Himmelreich, Chief Executive Officer at IHK-Gfl explains, “On average, our ERP software processes 16 million transactions each day. On peak days, this number almost doubles, reaching around 30 million. At night, when many batch jobs run, it can increase to as much as 100 million. Our system struggled to perform to the standards we require during these busy periods.”

A second priority for IHK-Gfl was to ensure the absolute security of data. Himmelreich says, “We needed more robust, seamless data replication. We simply cannot afford to lose data, so we needed a solution that would make our Recovery Point Objective as small as possible.”

Delivering on promises

IHK-Gfl identified the need for a new data storage infrastructure—one that could cope with the considerable demands of its customers. Himmelreich comments, “We saw that the Oracle database was waiting for up to 20 milliseconds for storage. The aim was to reduce that to around two milliseconds, no matter what the time of day.”



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—Andreas Himmelreich, Chief Executive Officer, IHK-GfI

To transform the storage infrastructure for its distributed server landscape, IHK-GfI chose to work with IBM. Himmelreich says, “It was a very straightforward decision. We did our due diligence, consulted with a number of vendors—and IBM delivered. We specified our performance demands—what we wanted to achieve in terms of speed, availability, security—and IBM built us a proof of concept that not only met but exceeded our requirements. In IBM, we found a trusted advisor with which we have begun to forge a mutually beneficial long-term relationship.”

Astonishing ease-of-use

The proof of concept was completed in two weeks, and it took IBM just six weeks to implement the solution. At its heart is an IBM System Storage DS8700 with IBM System Storage Easy Tier™. Himmelreich comments: “I was aware of the impressive technical capacity of the DS8700—unbounded flexibility and scalability; improved application performance with optimized storage tiering—but it was the intuitive ease-of-use of the system that astonished me. It’s like an appliance—it just manages itself!”

Using Easy Tier, the DS8700 automatically moves the most frequently accessed data to solid state drives for maximum performance, and moves less frequently accessed data to slower, lower-cost disks. In this way, the solution optimizes price-performance while minimizing the workload for the storage administrator. With the DS8700, IHK-GfI successfully achieved its performance target of no more than 2 milliseconds access time for databases at all times.

The data on the production storage environment is replicated using IBM Global Mirror software to an IBM System Storage DS8100 at a secondary location. The replicated environment has a lag of just two seconds on the production environment, which represents the maximum amount of transactional information that could be lost (in other words, the Recovery Point Objective) in the event of a complete disaster at the primary site. The Recovery Time Objective (the total time taken to get services up and running in the secondary data center) is around two hours.

Solution components:

Hardware

- IBM® System Storage® DS8700
- IBM System Storage TS7650G ProtecTIER® Deduplication Gateway
- IBM System Storage DS3512
- IBM System x® 3850 X5

Software

- IBM Global Mirror
- IBM System Storage Easy Tier™

Services

- IBM Global Technology Services
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IHK-Gfl deployed an IBM System x3850 X5 to run a number of servers virtualized using VMware vSphere. Thorsten De Zanet, ICT Senior Consultant at IHK-Gfl, comments: “With the x3850, we will be able to massively expand the memory to run more virtual machines or larger databases. For a fast growing business like ours, that’s a great advantage.”

IHK-Gfl also uses IBM System x3850 X5 servers to support its Oracle databases in Oracle Real Application Clusters (RAC), providing extremely high performance and availability for mission-critical data.

Shrinking data

IHK-Gfl deployed two IBM System Storage TS7650G ProtecTIER Deduplication Gateways, one in each of its data centers, to reduce the total amount of storage capacity required and to accelerate backup and recovery. At IHK-Gfl, the ProtecTIER gateways achieve a data-compression ratio of around 6.5 to 1, which enables the organization to back up dozens of individual servers within a relatively small storage space.

Says Oliver Bretschneider, Team Leader, System and Infrastructure Services, IHK-Gfl: “With IBM ProtecTIER, our backups are approximately 30 percent faster and our restart times are 10 times faster than before. We replicate all backups to the second ProtecTIER, so we can easily and quickly restart servers in the secondary data center.”

Multimillion savings

With faster storage, IHK-Gfl customers have experienced a clear improvement in overall system performance. A survey of users of the company’s ERP application showed a 25 percent increase in the average system performance rating after the implementation of the IBM system storage solution. “Customers would phone in to express their amazement that the system performance had improved so dramatically,” recalls Himmelreich.

The increased customer satisfaction is also a result of the improved availability provided by the new IBM infrastructure. Himmelreich says: “The DS8700 has an availability of 100 percent. The average availability of our SaaS-ERP-System therefore went up from 98.95 percent to over 99.91 percent, and that means our customers’ businesses work better. On the assumption that a day of downtime for one user costs each customer €500 in lost business, the enhanced availability provided by the IBM System Storage solution is saving € 2.7 million a year across our customer base. And because we’re able to provide a better service, we’re seeing significant growth in our own SaaS-ERP-System, which grew almost 10 percent last year.”

For more information

To learn more about IBM System Storage DS8000 Series, please contact your IBM marketing representative or IBM Business Partner, or visit the following website: ibm.com/systems/storage/disk/ds8000/

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