Case Study
Z.I.E.L. GmbH

»Thanks to the highly-efficient architecture of the ETERNUS DX storage system, we improved performance by a factor of five and can flexibly fulfill customer requirements.«

Thomas Scherer, manager of the Z.I.E.L. GmbH data center

The customer

Since 1984 Z.I.E.L. GmbH has been developing software products which are specifically tailored to meet the needs of travel agencies. The company's motto is "Specialization without Compromises."
www.ziel.de

The challenge

Upgrading its data center to implement a high-performance environment with maximum flexibility to offer hosting for travel agencies.

The solution

Creating a dynamic IT infrastructure to further accelerate business development. The driving force is a PRIMERGY BX900 S2 blade server, which offers high power density in a very compact format and is equipped for this application with six PRIMERGY BX924 S3 server blades. The backbone of the new SAN in the high-performance data center is ETERNUS DX90 S2, the flexible data safe.

The trend is Web-based travel agency management

Z.I.E.L. products are known for their user-friendliness. With years of experience, the company's specialists are very familiar with the requirements of travel agencies and specific conditions in the travel industry. Z.I.E.L. has used its practical knowledge since 1984 to develop software products and services for travel agencies according to its motto "Specialization without Compromises." Its Web-based SYNCCESS® travel agency software is increasingly popular. Some 800 travel agencies currently profit from hosting of their back office administrative systems by the Z.I.E.L. data center.

Data center to drive business development

More requirements must be fulfilled by the data center as Z.I.E.L. hosting services for travel agencies become a success story. However, this had become much more difficult with an ageing server and storage infrastructure. Z.I.E.L. has used virtualization for a long time, but the heterogeneous environment made administration cumbersome. At the same time, data growth and the increasing number of virtual servers slowed the storage system, increasing customer complaints about performance. That led to Z.I.E.L.'s decision to upgrade its data center infrastructure. Thomas Scherer, manager of the data center, describes the company's estimations for the new complete solution: "We wanted a homogeneous infrastructure with a lot of power that would also be energy efficient, compact, and easily expandable."

Z.I.E.L. starts with a dynamic IT infrastructure from Fujitsu

Following an analysis of the current server/SAN developments, Z.I.E.L. chose the PRIMERGY BX blade server and the ETERNUS DX online storage system. Fujitsu and Bytec proved their point by running a test with an ETERNUS DX. Major improvements in performance values utterly convinced Z.I.E.L. The proven data center components support hosting for a constantly growing number of customers, offering maximum power and superior scalability. They also work perfectly together, can be flexibly configured, and are extremely energy efficient. As a result top performance capability and economic efficiency go hand in hand. Z.I.E.L. reckons that performance has been improved by a factor of five and that energy savings total 60 percent.

Customer benefits

- Higher guaranteed service levels for travel agencies
- Enhanced customer-friendliness
- Sufficient power reserves for further growth of the customer base
- Energy consumption by the server and storage environment down by 60 percent
- Major decreases in running costs
- Comprehensive protection of investments thanks to simple, cost-effective scalability of the infrastructure

Products and services

- PRIMERGY BX900 S2 with six PRIMERGY BX924 S3 server blades
- ETERNUS DX90 S2 with storage capacity scalable to 360 TB
- Operating system: Microsoft® Windows® 2008 R2 server
- Application: SYNCCESS® back office system for travel agencies

PRIMERGY BX blade server simplifies virtualization

Hosting by the SYNCCESS® back office system is increasingly popular with travel agencies and is of strategic importance for Z.I.E.L. It soon became clear that the system would be based on the PRIMERGY BX blade server, since the entire dynamic server infrastructure in a box with ten height units is extremely compact and offers top power density with up to 18 server blades in one chassis. This considerably reduces the complexity of the Z.I.E.L. data center while leaving plenty of room to expand the hosting business. Administration is now much simpler, too, thanks to I/O virtualization and simple management of the physical and virtual environment.

ETERNUS DX maximizes flexibility and data security

"When choosing the storage system, we were initially unsure which one was right," reveals Thomas Scherer, raising a problem that faces many IT decision-makers these days. Storage systems in modern data centers must fulfill many requirements, which can also change quickly. That makes planning far more difficult. For example, in addition to predicting data growth, Z.I.E.L. also had to include a sufficient power buffer for server virtualization in its calculation and find a solution that would allow it to fulfill different customer requests economically. But Z.I.E.L. was confident that its chosen solution was also the best, because "we knew that Fujitsu offers the most comprehensive portfolio on the market with SAN, NAS, and unified storage systems," says Scherer. After initially being tempted by another maker's system, Z.I.E.L. ultimately decided on an ETERNUS DX. "The final tipping point was a test run; the performance values of the ETERNUS DX convinced us," explains Scherer.

An ETERNUS DX90 S2 is the backbone of the new SAN in Z.I.E.L.'s high-power data center. The flexible data safe for dynamic infrstructures has an architecture with a large cache, a slim operating system, and optimized algorithms, guaranteeing brief response times even under full load "We can realistically say that we expect that performance to be improved by a factor of five," reports Scherer. Hard disk types such as SAS, Nearline SAS, and SSD can be used at the same time in one system, so Z.I.E.L. can now offer optimum performance for every customer requirement with no difficulty in reconciling power, capacity, and costs. For example, Z.I.E.L. plans to deploy extremely fast SSDs for certain customer groups and implement a RAID array of SSDs during a later expansion phase. Z.I.E.L. is now very flexible in the area of data growth as well: The storage capacity of the ETERNUS DX90 S2 can be scaled up to 360 TB, and thanks to the uniform design of the entire ETERNUS DX product family Z.I.E.L. can grow simply from one model to the next. Another important aspect is that thin provisioning keeps the initial investment to a minimum.

Substantial improvements in economic efficiency

Higher-quality service for travel agencies and increased flexibility are two main advantages of the new data center environment. A third is that running costs are much lower. One reason for this is integrated server and storage management along with functions such as automatic tiering. Another important factor is the energy efficiency of PRIMERGY and ETERNUS DX: "We are achieving energy savings of 60 percent," reports Scherer. The new equipment also gives off much less heat, so he is convinced that Z.I.E.L. will be able to install smaller, more energy-efficient air conditioners the next time they have to be replaced.

"Close cooperation with our partners Bytec and Fujitsu made it much simpler to plan the new data center environment."

Thomas Scherer, manager of the Z.I.E.L. GmbH data center

In cooperation with

bytec

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