The new data center, based on PRIMERGY BX600 S3 servers, has 16 GB of memory that can be further expanded, as well as ETERNUS DX80 disk storage providing double the previous capacity and virtualization solutions to increase the system's flexibility. We have achieved our aim of making the business more dynamic. — Gianfranco Bogana, EDP Manager, Duka AG

The Challenge
- Revamp the data center to make it more powerful and more dynamic, in line with the customer's business model
- Meet the increased need for data security
- Choose an expandable solution, ready to meet constantly evolving market and strategic challenges
- Fulfill requirements concerning energy efficiency and environmental responsibility
- Replace the infrastructure quickly

The Context
Distinguished by its quality and reliability, the South Tyrol based company Duka AG produces shower enclosures, employs over 150 people and is active in a number of markets in northeast Europe. The company’s philosophy: be attentive to customer needs and, in particular, ensure fast response times while offering tailor-made solutions. Orders are processed immediately and the products delivered a maximum of two weeks after the order was placed. Combined with a continuous growth in sales, which have been unaffected by the economic crisis of 2009, this business model has resulted in the need for a more agile and cutting-edge IT system, as Gianfranco Bogana, EDP Manager at Duka AG, explains: “The machines in our data center were getting old and began to have capacity problems. This was a critical issue that needed to be resolved, given the very fast times in which we want not only to respond to market requests, but also to anticipate trends.”

Duka’s request for a new, more powerful and secure data center that could be dynamically aligned with the corporate strategy was met by Aldebra, one of Fujitsu’s biggest partners for the sale of its products. Aldebra was born out of a project to combine ten ICT companies (with a total of 180 employees) with strong regional ties (Bolzano, Trento, Verona, Treviso, Milan), in order to create a network throughout Italy. “Our goal is to bring customers, through our qualified staff and certified partnerships, the latest-generation products and skills to offer the most up-to-date solutions for corporate IT infrastructures. The right products can guarantee a company's success”, says Massimo Bertinato, sales director at Aldebra. Aldebra demonstrated that it was the ideal choice to partner Duka in the project by first carrying out an accurate analysis of the customer’s requirements and then proposing the most suitable solutions for the planned project – including, among other things, the creation of a disaster recovery center and a LAN/WAN infrastructure – following a very detailed feasibility study.

The Customer
Duka AG is a company based in South Tyrol, Italy, that produces shower enclosures. The firm has over 150 employees and is active in a number of markets in northeast Europe. The company’s philosophy: be attentive to customer needs and, in particular, ensure fast response times while offering tailor-made solutions. www.duka.it

The Project
To replace and expand the infrastructure of the data center to meet the company's new requirements, with virtualization solutions to support servers and storage.

The Solution
- Fujitsu PRIMERGY BX600 S3 server (5 blades)
- Fujitsu PRIMERGY RX300 S5 server
- Fujitsu ETERNUS DX80 disk storage systems
- Fujitsu ETERNUS LT40 tape library

www.ts.fujitsu.com
THE PROJECT
The project was first considered in mid-2009, when Duka realized that its old servers had reached the limits of their capacity. This was the first step toward the decision to replace all of the company's IT equipment.

After analyzing the market in September 2009, between mid-November and the beginning of December the final decision was made to use PRIMERGY BX600 S3 servers and ETERNUS DX80 disk storage systems in one: solution that improves performance, can be expanded and, just as important for Duka, improves energy efficiency. Following this decision, the new solution was quickly installed, with the priority being to replace the file server by the end of 2009. The new data center was completed with the final hardware installations in March 2010, and the software migration was completed in mid-April.

Why Fujitsu products? Duka has been a customer of the multinational company since the 1990s; the leader in developing and producing IT technologies, solutions and systems has always "guaranteed the desired results", answers Gianfranco Bogana. "Fujitsu is a reliable partner, capable of resolving problems quickly and providing professional and helpful staff. In order to grow, companies need not only products, but also skills and people."

THE SOLUTION
Servers. Duka’s new data center has a heavily virtualized five-blade infrastructure (expandable): where previously there were seven physical servers plus four additional servers, there is now only one physical server, with all the others operating in virtualized environments. Of the ten blades available on the PRIMERGY BX600 S3, the South-Tyrol company currently has four production blades – of which three are in VMware virtualized environments (144 GB) and the other on a physical server (16 GB) – plus one spare blade. The sole physical server is used for the Oracle database, in order to guarantee the highest possible service level. The new solution is installed inside a 48-unit rack in the server room.
**Storage.** The two solutions chosen are based on ETERNUS DX, the new generation of disk storage systems, which are highly reliable, scalable, fast and have reduced energy consumption. The first, a Fibre Channel system with 2 TB of disk space, is for the virtualization environment and the high-performance relational database. The second is an iSCSI solution for the active part of the file server, with another 2 TB of space.

“We suggested the ETERNUS DX80 iSCSI and DX80 Fibre Channel because they correspond exactly to the customer’s technical specifications, as well as to the need to control costs. These two solutions give the possibility of dynamically expanding the total space available to over 200 disks”, explains Massimo Bertinato.

**Back up and disaster recovery.** To this structure is added a PRIMERGY BX600 S3 blade server with five BX620 S5 blades, a series of Brocade switches to ensure the redundancy of the Storage Area Network, and 3 TB of storage for quick saves to disk and/or snapshots taken directly from storage.

“We built a disaster recovery center just over a mile from the head office at Bressanone. At this second site there is a small 24-unit cabinet with an ETERNUS LT40 tape library, an LTO-4 drive and a dedicated PRIMERGY RX300 S5 server for the daily backup procedure”, continues Massimo Bertinato.

The two sites are connected with a high-performance 1 Gb fiber-optic connection for performing and managing backups.

**Virtualization and other aspects.** This project, which consisted of a number of separate aspects, also included virtualization with VMware technology, the installation of Microsoft software for the server operating systems, software distribution in a Citrix environment, managing the LAN/WAN infrastructure with Cisco and Fortinet, and monitoring the installed hardware systems with Fujitsu ServerView Operations Manager. During system planning, various test sessions were carried out on the customer’s vertical software using either the Aldebra demo lab or Fujitsu’s demo lab at Vimodrone near Milan.

“FUJITSU IS A RELIABLE PARTNER, CAPABLE OF RESOLVING PROBLEMS QUICKLY AND PROVIDING PROFESSIONAL AND HELPFUL STAFF. IN ORDER TO GROW, COMPANIES NEED NOT ONLY PRODUCTS, BUT ALSO SKILLS AND PEOPLE.«

Gianfranco Bogana, EDP Manager, Duka AG
CASE STUDY  DUKA AG

BENEFITS FOR THE CUSTOMER

- Reduction of data center operating costs
- High performance
- Security and reliability
- Expandability
- Easy to manage
- Flexibility

SUCCESS

The benefits for Duka relate to services, flexibility and security. The company is already seeing a marked increase in system performance, in particular with regard to the terminal servers, with an improvement of at least 30-40%. In addition, the tests conducted during the database migration were very positive. Also doing well is the backup procedure, which previously risked causing small bottlenecks: the upgrade to a LTO4 environment has now halved the time required to perform backups.

Thanks to the PRIMERGY servers, scheduled to operate round the clock, the customer enjoys improved reliability without additional costs, business continuity and more efficient data protection, thanks to redundant hot-plug components that ensure high levels of availability.

In particular, the PRIMERGY BX600 S3 servers optimize the key criteria of the servers in the data center. They adapt processing capacity to demand and improve the use of space, ensuring high performance/cm³ thanks to the new 64-bit Intel® Xeon® and AMD Opteron™ Single-, Dual- and Quad-Core processors. In addition, the TCO (Total Cost of Ownership) of the data center has been reduced. Thanks to the LAN infrastructure integrated inside the chassis, together with the power units, cabling has been reduced by a third. The high flexibility of the blade systems means that they can easily be adapted to changes in performance requests, thanks to solutions for the remote intelligent management of operating systems, applications and load balancing. These cover the ServerView server management suite and the PDA (Prefailure Detection and Analyzing) and ASR&R (Automatic Server Reconfiguration and Restart) facility.

There have been significant improvements in the flexibility of the solution. The old machines only had 4 GB of memory, whereas Duka now has 160 GB that can also be further expanded; this is necessary because of the increase in access requests, in particular remote requests, and the company's plans to expand in the future. The servers can also be connected to a storage subsystem (NAS or SAN) via LAN/FC. Since the architecture is modular and flexible, it can be expanded easily.

The ability to intervene immediately on both the servers and the storage is also important.

This is the first time Duka has used virtualization solutions, which were chosen in order to increase the system's security and allow quick intervention in the event of server problems. In the event of a server crash, it actually takes far longer to restore a physical machine than to restore a virtual machine. And that's not all: the virtualized environments make it possible to simulate and migrate far more quickly, always with the aim of making the system more elastic and the business more dynamic.

To sum up, the system can be developed further and therefore responds to the needs of Duka, which expects good development in the years to come and wants to be equipped with the tools to allow the company to react quickly. "This system supports not only the IT structure, but also the business strategy", concludes Massimo Bogana.

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