



The challenge

At www.worldshop.eu, customers participating in the Miles & More frequent flyer programme can acquire a wide range of high quality branded products from aircraft models and suitcases to sports equipment, entertainment electronics and wines and also pay the products with their bonus miles. Around 20,000 visitors, from 200,000 to 300,000 page impressions a day and a complex, mixed payment system (bonus miles and cash) make www.worldshop.eu a technologically demanding webshop that operates in five languages.

The solution

After the previous contract had expired, Lufthansa WorldShop GmbH called for tenders for the hosting of the web shop. The infrastructure proposed by noris network AG was awarded the contract. Six dedicated Linux servers arranged in two lines are operated in a high-availability configuration a shared load balancer. The underlying MySQL database is stored on servers that are equipped with fast solid state disks instead of conventional hard drives.

The successful project

One month earlier than agreed, the webshop implemented in noris network's data center went online and has since been running smoothly. Thanks to its active monitoring, the service provider was able to notify the webshop operator of potential performance bottlenecks and thus prevent problems that otherwise might have occurred in the event of extremely increasing access loads during promotional campaigns.

High-availability webshop for Lufthansa WorldShop GmbH



"It impressed us to see how noris network actively searches for potential problems, immediately informs us as the customer and independently takes early remedial action - that's my idea of perfect data center service," says Jochen Anderko, IT Team Leader at Lufthansa WorldShop GmbH.

At the heart of the webshop: a database at lightning pace

Around 20,000 visitors a day and a complex, mixed payment system make www.worldshop.eu, which operates in five languages, a technologically demanding webshop. To ensure that the webshop's underlying MySQL database can be accessed as fast as possible, noris network proposed a special configuration for the two database servers: instead of normal hard drives, noiseless Solid State Disks (SSDs) are used. SSDs are flash memory media, and their decisive advantage in database applications is that the read access speed they support is vastly superior to that of conventional hard drives.

"For the 23GB database, we installed servers with 100GB SSDs to have sufficient spare capacity in terms of storage space and speed," explains Peter Bitterlich, Key Account Manager at noris network AG. "This obviates the need for an additional storage system, and we gladly accept the higher cost of the flash media to provide our customer with an extremely fast database server."

Active monitoring

Active monitoring is part of the standard service offered by noris network, a company fully certified in accordance with ISO / IEC 27001:2005. Shortly after commissioning the high-availability webshop, the team headed by Jochen Anderko was able to benefit from the meticulous monitoring of the operation by noris network's staff.

They identified a previously undetected performance bottleneck that would have caused problems in the next promotional campaign: during the migration of the database from Windows to Linux, a number of settings were copied that were actually not needed in the new environment but would have limited the number of simultaneous sessions.

When operating systems like webshops, active monitoring is not limited to the basic functionality of the infrastructure, such as power supply, cooling and security, but also extends into the applications. In this way, the customer not only has the certainty of being immune to unpleasant surprises, but can also identify improvement potentials from the feedback returned by the data center technicians.

Data & facts

- Five-language webshop with 200,000 and 300,000 page impressions a day
- Complex, mixed payment system (miles and cash)
- Six dedicated Linux servers in two lines, load balancing
- Database servers with 100GB Solid State Drives
- Mirroring of the infrastructure on virtual servers for development, quality assurance and staging
- Highest service standards and active monitoring

Lufthansa WorldShop GmbH

Lufthansa WorldShop GmbH operating the www.worldshop.eu webshop is a division of Deutsche Lufthansa AG and offers participants in the Miles & More frequent flyer programme the possibility of using bonus miles for the purchase of goods in the online shop. The product portfolio covers the areas of Travel & Luggage, Entertainment & Media, Home & Living, Lifestyle & Accessories, Sports & Wellness, Kids & Fun, and Lufthansa & Aviation.

noris network AG

Nuremberg-based noris network AG offers enterprise customers tailor-made ICT solutions in the areas of IT outsourcing, cloud services and network & security. Technological basis of these services is a powerful IT infrastructure that relies on noris network's own high-performance backbone and multiple high-security data centers. noris network AG is fully certified according to ISO/IEC 27001 and ISO/IEC 20000 and has a BSI certification for its own data centers. The data centers have been awarded the maximum rating of five stars in the eco Datacenter Star Audit conducted by eco (Association of the German Internet Industry).

noris network

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