

Case study

Austrian heating systems manufacturer Hargassner relies on PRIMERGY servers and ETERNUS backup systems

»Our new PRIMERGY servers have significantly increased the speed of applications. Performance has been increased by at least 50 %. Using the ETERNUS LT40 for our backup has also proven to be a real time saver, as this is now all done automatically.«

Karl Sattlecker, Head of IT Organization and Process Management, Hargassner GmbH



Sustainable heating technology made in Austria

Eco friendliness is beneficial. Since its foundation in 1984 Hargassner GmbH has excelled as a pioneer of environmentally friendly heating using renewable energy. This kind of organic heating is not only good for the environment; it also protects the user's budget. After all, the pellets (made from wood chips, timber trimmings etc.) used in the company's boilers have been cheaper than heating oil for many years. In the past 25 years the family-owned company based in Weng near the river Inn (state of Upper Austria) has equipped more than 45,000 customers with an environmentally friendly heating system. Hargassner offers wood chip and pellet boilers ranging from 9 to 200 kWh. That means lowest possible emissions combined with maximum efficiency. By now 170 employees produce more than 6,500 wood chip and pellet heaters a year. There is an external sales force for Austria and Bavaria reaching the final customer via installers. The export is done via branches and representatives in various countries. 60% of total sales are generated by exports and the number is increasing steadily.

Needed: an adaptable IT environment

This rapid growth necessitated a comprehensive overhaul of the IT environment. Hargassner wanted to significantly increase the automation of its boiler production. Furthermore a new fully automated high-rack storage, additional robotic controls, automated conveyor technique and a powder coating plant were utilized. A further increase of production capacities is currently being planned. Plus, our 45,000 customers make an effective ERP system essential. Both need server performance and hence the creation of a professional data center. Hargassner turned to its long-standing IT support partner elcotrade GmbH from neighboring Andorf. Together with system architects from Fujitsu, a fully developed concept for a virtualized environment with servers, a storage system and a secure as well as automated backup system was created.

The customer

Austrian Hargassner GmbH produces environmentally friendly heating systems using renewable energy.

www.hargassner.at



The challenge

The company's rapid expansion meant it needed an entirely new IT environment that had to be highly available and easy to administer. Hargassner was also looking for easy expandability and a secure backup concept.

The solution

Fujitsu and its distribution partner elcotrade developed a mirrored and virtualized data center on the basis of PRIMERGY servers, an ETERNUS backup system and a storage solution by NetApp.

When it comes to heating technology or servers Hargassner and Fujitsu both rely on eco-friendly systems



Natural means of cooling in the data center

"Given our rapid growth at the moment, we need a highly scalable IT environment," explains Karl Sattlecker, Head of IT Organization and Process Management at Hargassner GmbH. "Therefore we have chosen virtualization, as this concept makes us flexible. We can do updates and increase capacities during ongoing operations." Founder and company boss Anton Hargassner designed the data centers so that they did not need air conditioning – this of course goes hand in hand with the company's philosophy: protecting nature and the environment and using resources carefully. As a manufacturer of heating systems, finding unusual solutions is nothing new. Both the main data center and the default data center draw fresh air from

the company's cool cellar. Via ventilation flaps and channels the air is guided through the rooms of the data center ensuring a sufficiently low temperature even in summer. "The air circulation is done by means of normal ventilators," Karl Sattlecker points out, "however, these use much less electricity than ordinary air conditioning systems."

Eradicating security deficits

High availability. That point was very high on the company's wish list. "We were lacking redundancies and our existing backup solution could simply no longer fulfill the new requirements," the Head of IT admits. "The new concept has balanced these deficits. The new

»We now operate twice the number of systems as before and benefit from an overall performance boost. Unbelievable but true, this whole new solution requires less energy than our old servers.«

Karl Sattlecker, Head of IT Organization and Process Management, Hargassner GmbH

data center is mirrored; the default data center is located in a different fire compartment. Both rooms have expansion potential, so we can extend our IT gradually together with the growth of the company.

Saving energy thanks to Fujitsu servers

Virtualization using VMware means valuable benefits in terms of security. Hargassner is using three PRIMERGY RX300 systems as ESX servers. In case an ESX host is unavailable, the virtual machines (VMs) are moved to the two remaining servers. Fujitsu offers another sustainable advantage given the energy savings its powerful servers offer. "Together with the storage and backup systems, we now operate twice the number of systems as before. But our energy consumption is still notably below what it was using the old servers."

Increased performance - consistent main storage

However, economic efficiency is of course not everything. "We benefit from an increased performance throughout and have better processors." Karl Sattlecker estimates that the performance has been increased "by as much as 50 % while the storage requirements of the virtualized server systems remain unchanged. This has exceeded our expectations by far." This has resulted in another cost reducing effect apart from the energy savings. "Originally we had planned to port the old physical servers to the newest system platforms," says Sattlecker. "Given the immense performance increase, this intermediate step became dispensable. We now have the newest genera-

tion of servers and we migrate our application and database systems step by step."

Scalable storage system by NetApp

Another novelty at Hargassner was a new storage system: NetApp FAS2020A is a preconfigured system with a potential total capacity of 68 TB. "Our previous storage system did not allow for any further extensions," Sattlecker explains. "We have had no previous experience with NetApp, but fortunately we can always turn to Fujitsu support services since they have experts for NetApp products. I think that is very convenient, as we have a one-stop service solution for Fujitsu and NetApp systems. And high availability plays a very important role in this context, since the storage system is redundantly connected via two FC switches by Brocade to the three ESX servers.

Backup at its most secure

In order to complete the new IT environment, Hargassner has created a comprehensive backup concept for the company's needs and implemented this technically fully developed solution. It consists of a PRIMERGY TX300 S6 tower server and an ETERNUS LT40 band storage system with a LTO-5 drive, also connected via Brocade switch to the fibre channel environment. "Up until now the backup was running via integrated band drives in the servers," explains Sattlecker. "This had the disadvantage that we had to check with every server



The benefit

- Reduced energy costs as systems decrease consumption
- Faster and automated backup
- Virtualization reduces administrative effort
- Mirrored data center and redundancies ensure high availability

Products and services

- Servers: 3 x PRIMERGY RX300 S6, 1 x PRIMERGY TX300 S6
- Storage systems: 1 x NetApp FAS2020A
- Backup: 1 x ETERNUS LT40 with LTO-5-drive
- Network: 3 x FC-Switch Brocade 300 8/24
- Virtualization software: VMware vSphere 4
- Backup software: Symantec BackupExec

whether the backups had run successfully." Apart from this time consuming process, there was the added disadvantage of using different media. "We were using LTO-3 and LTO-4 drives which made handling the various generations of bands even more complicated," explains the Head of IT. The new ETERNUS LT40 band storage system with its twelve band slots is a central backup system for Hargassner that has been rolled out and that has made all procedures much easier. "Nowadays I go to our backup room once a month and I simply exchange the tapes – and that's it." The regular daily and weekly checks are fully automated and the robot changes the tapes. "The whole process saves a lot of time", says Sattlecker. "The monitoring is done via Symantec BackupExec. Should anything happen, I receive an automated message. Apart from that I get daily system reports informing me about successfully completed backup jobs. It's just great how it works."

Simplified recovery

In order to deal with the needs of the company's different departments, Karl Sattlecker does snapshots of the file server every four hours. "This enables us to recover data online up to three months back – without having to use the tapes. The users themselves can recover data up to two days back. Recovery has been simplified." Hargassner's Head of IT offers a very positive summary: "This investment is a perfectly tailor-made solution for the needs of our company. The aims performance increase, scalability, energy savings and secure IT operations were totally reached and realized. On the whole Fujitsu has offered us great support with the design and implementation. And elcotrade, the Fujitsu SELECT Expert partner from Andorf, has played a major role in the successful implementation of the overall solution."



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