> "The hyper-converged PRIMEFLEX for VMware vSAN infrastructure gives our virtualized systems their high performance, makes them scalable and easy to administer, and it does this with an optimum price/performance ratio."
>
> **Marcus Juchem**
> **Head of IT**
> **Schwarzwaldmilch GmbH Freiburg**

Bechtle implemented a VMware-optimized server and storage architecture based on FUJITSU PRIMEFLEX for VMware vSAN for Schwarzwaldmilch GmbH Freiburg.

At a glance

Country: Germany
Industry: Food and beverages
Founded: 1930
Website: www.blackforestmilk.com

Challenge

Schwarzwaldmilch GmbH Freiburg wanted to increase the performance of its approximately 60 IT systems by migrating to VMware and went looking for a new scalable IT server and storage infrastructure that could be implemented quickly.

Solution

Together with Fujitsu, the SELECT Infinity partner Bechtle implemented a VMware-validated, hyper-converged IT infrastructure. Based on FUJITSU Integrated Systems PRIMEFLEX for VMware vSAN, this infrastructure provides all resources needed for computing, storage, networking and virtualization in a single system.

Benefit

■ High stability and fast deployment of a virtualized IT infrastructure

■ Increased system performance

■ Cost savings through a hyper-converged infrastructure

■ Optimum price/performance ratio

■ Easy maintenance and administration

■ High degree of scalability and wide selection of deployment options

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Customer

Schwarzwaldmilch has been operating as a regional, cooperative enterprise in Southwestern Germany for nearly 90 years and is one of the country's leading dairies. More than a thousand milk producers supply its production facilities in Freiburg and Offenburg with approximately 230 million kilograms of fresh, regional milk per year. This milk is processed into fresh milk, UHT milk, dairy beverages, buttermilk, cultured milk, plain and fruit yogurt, cream cheese, spreads, whipping cream, sour cream, crème fraîche, butter and cheese.

Products and services

- FUJITSU Integrated Systems PRIMEFLEX for VMware vSAN
- 3 x FUJITSU PRIMERGY RX2540 servers, each with 384 GB of RAM
- vSAN Ready Node HY8 (approx. 30 VMs per server node, 14.4 TB of storage, 24 CPU cores, 40,000 IOPS)

Migrating to a new virtualization solution

Schwarzwaldmilch's existing virtualized IT infrastructure at its facility in Freiburg had grown significantly over the years and was experiencing performance problems. As a result, certain processes were slow or did not run as well as they should. For example, it took 15 minutes or more to start up the EDI system. In addition, support was no longer available for some of the existing hardware, and administering the virtualized systems and additional storage had become extremely labor-intensive for the IT department. The cooperative enterprise therefore went looking for a new virtualization solution and suitable IT infrastructure together with its IT partner and Fujitsu SELECT Infinity partner Bechtle, a system provider based in Freiburg.

"We were planning to migrate to VMware," explains Marcus Juchem, head of IT at Schwarzwaldmilch. "VMware makes it possible to provide virtual machines much easier and faster, and it is also far less complicated to maintain existing ones." There is also a bigger selection of manufacturers who offer appliances as finished images specifically for VMware. In the past, this constantly led to compatibility problems. The new infrastructure should make it as easy as possible to migrate our virtualization environment to VMware. We wanted it to be easy to administer, have a high performance and also be scalable," says Juchem, summing up the requirements.

Hyper-converged infrastructure offers impressive cost and performance benefits

In close consultation with Fujitsu, Bechtle concluded that a hyper-converged infrastructure would be the most suitable option for the medium-sized company. The choice went to FUJITSU Integrated Systems PRIMEFLEX for VMware vSAN, a hyper-converged IT infrastructure that provides all the resources needed for computing, storage, networking and virtualization in a single system. PRIMEFLEX for VMware vSAN makes external storage unnecessary, since both the server and the storage system run on the same hardware base. This saves companies the cost of additional hardware, switches and management software. It also eliminates a great deal of administrative work. This suited Schwarzwaldmilch and its relatively small IT team very well.

"A hyper-converged infrastructure is a good option especially for medium-sized firms such as Schwarzwaldmilch because it is easy to administer and less expensive than a conventional infrastructure," explains Stephan Egle, who heads the Bechtle IT system provider's data center team. This also convinced Marcus Juchem, who had to choose between different suppliers and solution scenarios.

Rapid implementation

Schwarzwaldmilch's hardware platform is based on three Fujitsu PRIMERGY x86 servers of the RX2540 type, each with 384 GB of RAM. They deliver a high virtualization performance, along with the best possible server density, low power consumption, little heat dissipation and manageable operating costs. With PRIMEFLEX for VMware vSAN, Fujitsu also offers a wide range of validated server configurations, known as vSAN Ready Nodes, with preinstalled software. The Schwarzwaldmilch system uses the HY8 node, a hybrid configuration made up of SSD and HDD memory.

It took only a few days to implement the new infrastructure. Marcus Juchem's team was able to migrate the most important of the total of 60 virtualized systems in three months; after six months, they had migrated all systems to the new environment.

System startup shortened from 15 to five minutes

"We are very happy with the way the project went," IT head Juchem remarks with satisfaction. "And we like the higher performance even more, which we measured based on the example of several services. It now takes the EDI service only five minutes to start up instead of the previous 15. Overall, the infrastructure is much faster, more powerful and easier to administer."

In fact, the sizing was so good that new virtual machines could be integrated without any additional hardware. "We are pleased with the service and support we received, which we didn't even need, apart from a few initial exceptions, since the system runs so smoothly and reliably."

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