



CHALLENGE

- Virtualisation of all physical servers at its Hamburg site and at its 80 locations around the world
- Management distrust and reticence
- Virtualisation of business-critical applications

SOLUTION

- Costs are cut and processes speeded up
- Greater agility, flexibility and speed
- Construction of new data centre could be avoided

VMWARE IN USE

- vCloud Suite
- vSphere
- vCenter and ESXi
- vSphere Storage Appliance
- vRealize Log Insight
- vRealize Operations Manager
- vRealize Orchestrator

BSS – Beiersdorf Shared Services

From head to toe – Beiersdorf is virtualising its global server environment using VMware's vCloud Suite

Beiersdorf Shared Services GmbH is virtualising its global server environment using VMware vSphere and in the process is enabling faster fulfilment of business requirements

Beiersdorf Shared Services (BSS) is a wholly owned subsidiary of Beiersdorf AG and has been operating as an independent business since 2003. The company is headquartered in Hamburg, currently employs over 300 people and has a presence in 75 countries around the world. As a partner of Beiersdorf, BSS shares its expertise with the entire Group and focuses its activities on providing optimum support for its business. In particular, BSS runs the company's entire IT and accounting – and, in order to continue to do this competitively in the future, is virtualising the complete server environment with the help of VMware.

Nivea, tesa, Eucerin, La Prairie and Hansaplast – the Beiersdorf Group invented modern skincare and is globally positioned with a wide portfolio of products. And has been for over 130 years. Skincare products are the company's core competence, but Beiersdorf pursues other goals as well such as maximising its commitment to sustainability in order to make a better life possible for future generations. Today the Group employs 17,000 people around the world and has over 150 subsidiaries. These also include Beiersdorf Shared Services (BSS), which is responsible for the Group's IT and accounting, providing them as highly efficient services. BSS provides the Group with strategic advice in the field of IT in particular, endeavouring to speed up its processes, making them more effective and streamlining them. Furthermore, the portfolio of services includes sophisticated infrastructure solutions and application management. The IT decision-makers decided to virtualise the server environment 100% in order to be able to respond in a more agile, flexible and rapid manner to requests. The server environment consists of two data centres on the campus in Hamburg as well as data centres at approximately 80 external locations around the world.

On the home straight to 100% virtualisation

The decision to virtualise the first physical servers at BSS was taken about ten years ago. At the time, the number of servers had multiplied considerably within a short period and it was clear that something had to change. Moreover, the goal was to be able to work faster and more effectively, which was only feasible to a limited extent with the traditional physical servers. "We finally made the decision in favour of VMware at an event in Leipzig, where the virtualisation specialist succeeded in convincing us of the benefits of its products," explains Stefan Thede, Service Delivery Manager Special Projects at BSS. The first VMware products were then deployed in the server consolidation project some time later.

The IT administrators finally took up battle with approximately 500 physical machines in 2004 and began to introduce virtual machines at the Hamburg location with the help of VMware vSphere. At the same time, BSS branch offices were virtualised using products from other vendors. Technical as well as management deficits of these products have resulted in VMware vSphere now being deployed at all locations around

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Stefan Thede, Service Delivery Manager
Special Projects at Beiersdorf Shared
Services

the world. VMware Converter was the tool used for the migration. It made an extract of the remaining physical servers and virtual machines, generated new virtual machines in VMware vSphere and put them into operation.

The principal reason for this was the constantly increasing number of tasks such as requests for new architectures or servers from the parent Group, Beiersdorf, which BSS could only meet to a limited degree – as IT was in many cases unable to deliver the required agility and speed. This was the reason why the decision was made to first virtualise smaller applications like print servers and later also critical production systems. However, initial doubts had to be dispelled before virtualisation could begin, relates Andreas Liehmann, Manager Server Platform at BSS: “At the beginning we encountered distrust of and reticence towards this new technology among the management of our internal customers and we had to work hard at informing and convincing them and showing the benefits and possibilities offered by the new solutions.” At the same time, the IT administrators were calling for a change in attitudes since IT had so far tended to be regarded as a cost factor within the company – a situation found in many companies. “IT is nowadays leading to cost savings for us since a large number of processes can be accelerated. Investment in IT is enabling us to respond to business queries and to our competitors’ projects within one to two days – and not within four to six weeks as in the past,” reports Stefan Thede. This agility made possible by IT represents a clear competitive advantage for the company.

With time BSS was setting itself ever-greater objectives. In 2011 IT management approved the proposal made by Jörg Meier to completely virtualise the server environment. Meier, who had been responsible for virtualisation activities at BSS from the very beginning, and his management decided after VMworld 2011 to migrate the last mainframe systems to the VMware platform.

Challenge – Business-critical applications

BSS ultimately had to virtualise business-critical applications in order to achieve

the goal of 100% virtualisation. The process of SAP virtualisation was embarked on with the support of IT management and the collaborative partnership of VMware Consulting and a VMware technical account manager. The virtualisation of the SAP environment based on VMware makes it possible to guarantee consistency and scalability. In addition, it was possible to make applications available within minutes and to clone templates to all SAP environments, which not only cut running costs but also increased agility in set-up and operation. vSphere vMotion also allowed workloads executed live to be migrated from one certified host to another – without any downtime or loss of data.

Virtualising SAP was a very extensive project for BSS but also a very significant one. Today, the results are impressive. “SAP runs very much faster than on the mainframe. Furthermore, the application can be switched to the ESXi servers using VMware vMotion even when it is running,” says Andreas Liehmann, listing the results. Thanks to the “Virtualisation First” policy initialised by Jörg Meier, other business-critical applications such as Microsoft Sharepoint, Microsoft Exchange and Microsoft SQL Server were successfully virtualised, in pursuit of the goal of full automation.

Today all applications and their servers at the Hamburg site run virtually. The platform is operated and continuously optimised with the assistance of vRealize Operations and vRealize Log Insight. This involves capacity planning, the fast identification of problems as well as proactive architecture discussions with internal customers. As a long-standing customer in the VMware TAM program, BSS has continued to participate in various beta programs and has influenced product development. Small, virtual data centres with local print servers are run independently in remote branch offices. They are however usually intended for required local services, since IT is generally designed to be highly centralised. This is why central components such as Exchange, SAP and Sharepoint are hosted in Hamburg. At the same time it is also intended to achieve the goal of minimising the number of servers in branch offices as far as possible.

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Andreas Liehmann, Manager Server Platform at Beiersdorf Shared Services

Sustainable thanks to virtualisation

There were further reasons for virtualising the server environment at BSS in Hamburg. As a result of constantly adding new servers to the existing data centres on the campus, the air conditioning system would not have been able to cool the rooms sufficiently in the following summer. And it would not have been possible to distribute the current 1,300 virtual servers across the existing data centres. The logical consequence would have been the costly construction of a new data centre. This dilemma was a further reason for pushing the server virtualisation even faster, ultimately leading to millions in savings. “BSS reduced power consumption by consolidating onto the virtual platform, saving annual fixed costs of around EUR 100,000 in 2012 alone. The ‘Green IT’ initiative also successfully supports the cross-company objective of sustainability,” says Jörg Meier, Department Manager Enterprise Application Management and Support.

One of the main reasons for the success of all this is that the IT administrators involved in Andreas Liehmann’s team planned a “keep it simple” architecture from the very beginning. In the past it was necessary for physical servers to protect each other from outages using clusters in the operating system or application, leading to the use of more servers. The maintenance effort involved in all this was enormous and was scarcely practicable. “When we migrated to virtual machines we decided to realise high availability at the virtualisation level and to get rid of operating system clusters. When a server goes down, a remaining ESXi server in the cluster simply assumes the role of the virtual machine,” Stefan Thede explains. BSS regards the reduced complexity of the application and operating system environment as a definite advantage compared to the previous architecture, saving not just capacity but also effort in operations.

Together on the way to the software-defined data centre

Server virtualisation at BSS is today complete and, despite initial doubts, decision-makers within the company

have been won over – because the results are impressive. First, the virtual servers achieve enormous savings in terms of costs and power while delivering increased performance and guaranteeing high availability of data. Second, the competitiveness of the entire Group in a constantly changing IT market has been significantly improved. In Andreas Liehmann’s team, virtualisation expert Jan Reinhardt is nowadays primarily concerned with further extending automation. “We have already used vRealize Orchestrator to automate the server provisioning process and integrated it into our self-service catalogue. We now intend making additional services like snapshots and clones accessible to customers, too.” In a further phase it is intended to then automatically document and remedy known errors using self-healing.

The team is kept up to date and is best prepared to face new challenges thanks to the continuous collaboration with a VMware technical account manager, project-related support from VMware Professional Services and training for staff by VMware Education Services.

“We also continuing to pursue our major aim of virtualising all areas in order to achieve complete automation – a software-defined data centre, with the help of VMware. We will then be even better able to support our parent Group, Beiersdorf,” says Andreas Liehmann in conclusion.

