



Server Virtualisation at the German Heart Disease Centre.

The German Heart Disease Centre in Munich (DHM) enjoys an excellent reputation throughout the world. Since its foundation in 1974, the DHM has treated more than 550,000 patients. As a model for combining outstanding achievements in the medication of heart and vascular diseases under one roof, the DHM gave many impulses for medical developments. For optimising the internal IT, the DHM decided for the virtualisation solution by VMware and authorised PC-WARE with the realisation. Now, the solution does not only strengthen the data processing "circulation" at the Heart Disease Centre, it also keeps the pulse of everybody involved at a permanently relaxed frequency. To put it in a nutshell: the existing applications were smoothly migrated to a new platform. This provides the DHM with a new, cost-efficient and easily administrable platform.

Server consolidation and standardisation.

At the beginning there was a thorough analysis of the existing technology: starting point was the necessity to replace outdated server hardware and to increase the systems' reliability.

The wishes of the IT Managers at the Heart Disease Centre can be summarised with the terms "server consolidation and standardisation". The DHM wanted to continue working with the existing applications and the data set already in place. During a workshop with the customer, the details of the future solution on VMware ESX servers were specified in detail. This solution provides the customer with a flexible and extendable platform that can grow with the future demands on hardware.

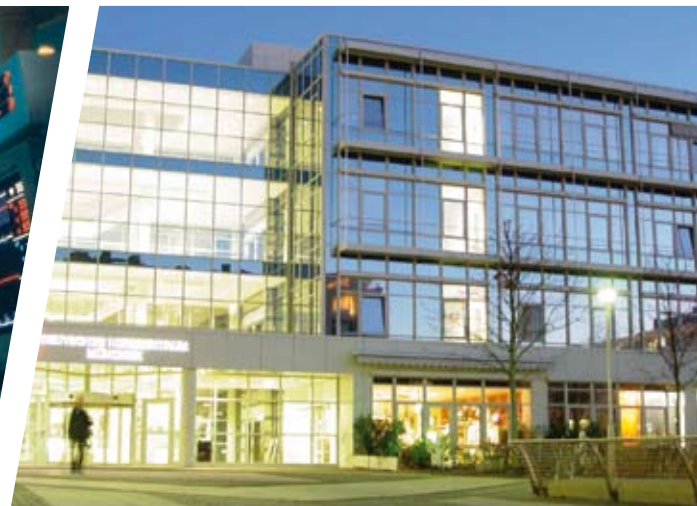
Physical 2 Virtual.

We configured an ESX server to accommodate the increased hardware demands from the existing applications. The consolidation consisted of migrating applications – previously run on dedicated servers to one single ESX server. With the help of "Physical 2 Virtual", contents of six productive servers were adjusted on the new server. Now, the DHM have a solution that allows running the applications according to the DHM requirements..

"We faced the challenge of replacing some of our application servers. After understanding the issue of server consolidation and standardisation, we soon knew that an ESX server is exactly what was required to increase the performance combined with efficient cost reduction. Now everything is faster and more secure than before, we have an extendable technology, which can be used for additional applications in the future. All this was achievable thanks to the expertise of the PC-WARE team."

Dr. H. Wendel, IT Manager at the Deutschen Herzzentrum München (German Heart Disease Centre Munich)





Exterior view: The German Heart Disease Centre Munich

Fast and smooth implementation.

„Physical 2 Virtual“ (P 2 V) is a tool provided by VMware. This was used by the PC-WARE consultant to copy data and adjust it to the new environment. The “Operation Virtualisation” at the German Heart Disease Centre in Munich (DHM) was carried out in just two appointments. The operation was based on a very detailed project plan from PC-WARE consultant defining all activities, timescales and responsibilities. Within two days, the consultant installed and configured the first ESX server at DHM with the help of P 2 V. The servers to be consolidated were up to ten years old manufactured between 1996 and 2001. After their hard drives had been virtualised on the ESX server, the productive environment could be immediately activated – that’s it!

Language Software goes VMware.

One of the challenges overcome during this project was the need to migrate language software to a new, more powerful platform. This application however required two components: one client and one server component. Finally, the solution was to import the software to one of the newly acquired ESX servers.

Secure staging Backup for sensitive data.

Another challenge experienced by project team was to backup the data, due to this being a hospital the data was very sensitive and

confidential information. This was done with the help of backup scripts. PC-WARE installed a staging backup: every night, all virtual machines on which something is changed were secured in a separate area of the hard drive.

At the beginning of every month, an additional backup of all virtual machines is carried out via the network. Virtual machines with important variable data are secured externally once a day.

Remarkable cost reductions.

The first consolidation of the application convinced the DHM of cost reductions. One year later, further applications were consolidated on a second ESX server using high-performance hardware with two processors, which are able to run eight to twelve virtual machines per server.

“If there were physical machines instead of virtual ones, the costs would have been significantly higher; not only regarding purchasing costs, but also administration and operation expenses. This means, the PC-WARE solution meets the DHM’s aim of cost reduction in several ways. As a result, the DHM plans to extend the ESX server to a virtual infrastructure”, said Robert Kraus, Vice IT Manager of the DHM and Project Manager.



Deutsches Herzzentrum München
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INDUSTRY
Health Care

SOLUTION
Virtual server including
standardisation and
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PRODUCTS
VMware ESX Server
Fujitsu Siemens RX-300 S2

PARTNER
VMware Global, Inc.

