

**HP customer case study:** DS Dichtungstechnik GmbH has completely modernised its IT infrastructure with solutions from HP and Microsoft and positioned itself more competitively for the future

**Industry:** Building

## Green IT promises DS Dichtungstechnik uninterrupted business processes



“Investments in Green IT will clearly pay off for us. Within three years, thanks to the HP ProLiant server blade and Microsoft virtualisation technology, we will already have achieved our Return on Investment (ROI) for the project, primarily through savings in electricity and air-conditioning costs. That is what convinced our management to go ahead with it in the first place.” Peter Klemmer, head of IT at DS Dichtungstechnik

### Objective:

DS Dichtungstechnik GmbH needed to reduce high administrative and electrical costs as well as a rigorous overhaul of the heterogeneous IT infrastructure and optimisation of the communication system. At the same time, the pre-requisites for eventual conversion to a new Enterprise Resource Planning (ERP) System had to be met.

### Approach:

- DS Dichtungstechnik opted for a Green IT solution with HP ProLiant server blades, a central storage system and manageable switches.
- Many applications were virtualised.
- A new network infrastructure was implemented to improve communication.

### IT improvements:

- IT administration now works pro-actively through a central management console.
- Since the new system was implemented, DS Dichtungstechnik has enjoyed virtually uninterrupted IT operations.
- The network is now administered centrally.

### Business benefits:

- DS Dichtungstechnik is saving almost €10,000 per year in electricity costs; this amounts to a saving of 50 per cent.
- All employees including the field staff are profiting from better communications.
- The project will achieve its intended Return on Investment (ROI) within three years.



DS Dichtungstechnik GmbH produces and distributes sealing products, for example accessories for channel construction. The main objective of the organisation is to accommodate the intermittently strong concentration process involved in sewage management and to provide pipe and duct manufacturers with a complete range of sealing products, reliably, with efficient distribution logistics and perfect service. Founded in 1983, the international firm is growing continuously. Today, it employs almost 100 employees, some of them in distribution centres in Poland, the Czech Republic, Slovakia and Austria.

### Many IT failures and outages

The IT infrastructure had developed side-by-side with the growth of the business but much of it no longer met current demands. For example, the network consisted of switches that were intended only for Small Office Home Office (SOHO) applications, the server landscape was heterogeneous and data storage was decentralised. Therefore, employees used inconsistent communication protocols that were hosted externally

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and resulted in media disruptions. The results were periodic breakdowns in IT that led to outages which disrupted business processes. Employees working in IT could only respond in limited fashion because they had no pro-active management tools at their disposal. Consequently, the cost of administration was high.

“When I came to DS Dichtungstechnik in the Spring of 2008, I first undertook a thorough inventory of the entire IT environment, including management and production,” confirms Peter Klemmer, head of the firm’s IT department. “The result showed a pressing need for action in hardware and software, in order to first of all guarantee uninterrupted operations. At that time, it was difficult even to tell where the sources of failure lay: was it in the hardware, the software or the network?”

#### **Switches centrally administered**

The most pressing shortcomings were in the network. For that reason, the SOHO switches manufactured by six different suppliers were replaced with four HP ProCurve Switches with Gigabit ports and management functionalities. “With that first step, our so-called “track shoe” network administration, which took a lot of time to fix problems running around on our 10,000 square metre plant area was dropped,” a relieved Klemmer explains. The fact that the switches could be administered centrally together with surveillance functionality was a decisive factor in approving the capital investment. It was worth it in the eyes of the head of IT. “Since the installation of the HP ProCurve switches, the failure rates have approached zero and the systems are running in

a much more stable fashion. In the end, it is the customer who benefits because we can handle requests more quickly.” Most helpful to Klemmer is the fact that, with the HP ProCurve Manager Plus (PCM+), he can recognise errors in the network pro-actively when they deviate from the boundary values specified by him. Whenever that happens, he is notified by email.

#### **Standardisation of the hardware**

As a second step, DS Dichtungstechnik completely overhauled its data centre. Here too, consolidation and standardisation were key in order to reduce susceptibility to downtime and to optimise administration. It was obvious to Klemmer that he had to replace the 14 different (and in part self-manufactured) servers, the decentralised security and the company’s various Linux versions, with unified hardware and software. HP Blade and virtualisation technology stood right at the top of Klemmer’s wish list. “It was of highest importance to me that the system be highly productive not just today but in the future as well and that it be expandable in a flexible manner in order to be able to face the increasing demands our business will make on availability, computational power and storage. We are definitely planning to replace our inventory control and production control systems with a new ERP system. Room for the hardware was, however, limited; thus, only a compact system would do.”

Taking the advice of Stein-IT, DS Dichtungstechnik decided on a homogeneous infrastructure based on HP and Microsoft technologies, which would at

the same time cut the company's annual electricity costs of €20,000 for IT in half. "The investment in Green IT will quite clearly pay off for us. Within three years, thanks to the HP server blade and Microsoft visualisation technologies, we will already have reached the project's Return on Investment (ROI), primarily through savings in electricity and air-conditioning costs. That convinced our management," Klemmer explains.

Implementation consisted of one HP Blade System c3000 Enclosure with eight drawers of which, at the end of the project, four are equipped with HP BL460c G6 servers. The remainder are free for additional projects like the ERP conversion. Because of the G6 server series, Klemmer even pushed back the data centre consolidation by a few months because the newest generation of these servers, thanks to the current-optimised CPUs, save another 30 per cent of energy compared to the G5 models. That reduces their electricity consumption and the need for air-conditioning.

### **Virtualisation is to be expanded**

The four HP server blades are running a Microsoft Windows Essential Business Server (EBS) 2008, a Microsoft Exchange Server and two Microsoft Hyper-V nodes respectively. The latter took on virtualisation tasks in order to relieve the Linux-based fax servers that were being replaced. They took over as virtual engines in the Exchange environment and were integrated with the fax software. The attachment of the Exchange servers to the telephone system was realised through software in a virtual environment. In the future, additional systems will be designed for virtualisation. The new ERP software is one such system, as are the thin clients that are set to relieve various fat clients soon. "Through virtualisation, we are lowering the installation and maintenance costs. Furthermore, it brings us more flexibility," says Klemmer. If a server or a PC is defective, its function can be taken over immediately by another. As a result, interruptions to business processes are much less likely to occur in the future.

The decision in favour of Microsoft's virtualisation solution was made primarily for management reasons. According to Klemmer, Microsoft System Centre Essential, a component of the Microsoft Windows EBS 2008, makes it possible for not only all software components to be monitored continuously from a single console but also the hardware components of the new infrastructure. Not only that, the HP Insight Control Suite delivers its data to the same console.

## Customer solution at a glance:

### **Primary Hardware**

- HP BladeSystem c3000 Enclosure with 4 HP ProLiant BL460c G6 servers
- HP StorageWorks MSA2324fc Dual Controller Array
- HP StorageWorks MSL2024fc Tape Library
- HP ProCurve 4200vl Switch series
- HP ProCurve 2500 Switch series

### **Primary Software**

- Microsoft Windows Server 2008 Enterprise licenses
- Microsoft Windows Essential Business Server 2008
- Microsoft Hyper-V Cluster
- Microsoft Exchange 2007 R2 Server
- Microsoft System Centre Essential
- HP Insight Control Environment
- HP ProCurve Manager plus (PCM+)

### **HP Services**

- HP Support Plus 24

"This continuous HP and Microsoft management solution makes administration easier and supervision of business parameters exceptional. I know at a glance whether the hardware and software components are running smoothly and where problems could arise," says Klemmer.

#### **A continuously operating management console**

With his new management console, the head of IT finds he can also monitor the new network storage components, an HP StorageWorks MSA2324fc Dual Controller Array with 4 GB Storage Area Network (SAN) connection and a gross capacity of 2.5 Terabytes. This has displaced the old, decentralised version that had reached its limits. The retention and backup of data now no longer takes place across separate servers but on the disc drive as well as on the HP StorageWorks MSL2024fc Tape Library. "With the HP StorageWorks products, we are guaranteed that the data will be backed up regularly. That had not always been the case, when disturbances on the shop floor might have caused a system to fail briefly," says Klemmer.

The various departments at DS Dichtungstechnik and, most importantly of all, its customers, are all profiting today from the continuously operating communication system. It is based on the Microsoft Exchange Servers which have been coupled to the telephone, fax and customer relationship management systems. "Introduction of the Microsoft Exchange Servers has eliminated media disruptions and the field staff find that stable communications are now the norm," explains Klemmer.

#### **Only 21 working days were needed**

Only 21 workdays were needed by DS Dichtungstechnik and Stein-IT to entirely overhaul the company's IT infrastructure. Klemmer was amazed at how quickly and smoothly the project went. "I had originally figured it would take six months. Yet our own preparations and those of our competent colleagues at Stein-IT were so good that we were able to shut down the old servers sooner than we had planned."

### Partner at a glance

**Name:** Stein-IT GmbH

**Headquarters:** Marl

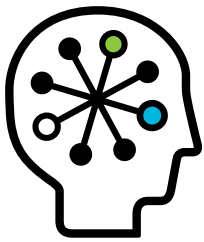
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