

# THE RIGHT TOOLS FOR THE JOB

German manufacturer cuts server footprint by around 47 per cent with new datacentre



Manufacturers of electrical tools need flexible and scalable IT environments that are as reliable and robust as the tools they create. They also need to react quickly to fluctuations in demand. A powerful and dependable environment that can adapt quickly is the basis for success in the manufacturing sector.

#### SOLUTIONS:

- BACKUP, RECOVERY AND ARCHIVING
- DATA CONSOLIDATION AND MANAGEMENT
- MIGRATION
- VIRTUALIZATION

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#### CUSTOMER PROFILE

**COMPANY:** Metabo  
**INDUSTRY:** Manufacturing  
**COUNTRY:** Germany  
**FOUNDED:** 1924  
**EMPLOYEES:** 2,300  
**WEBSITE:** [www.metabo.de](http://www.metabo.de)

#### CHALLENGE

Metabo wanted to build a completely new IT environment at two mirrored datacentres and include virtualization in its infrastructure.

#### SOLUTION

Dell worked with Metabo's IT team to build a simplified datacentre based on Dell™ PowerEdge™ blade servers with VMware® and Dell EqualLogic storage.

#### BENEFITS

##### Get IT Faster

- Data migration completed in weeks

##### Run IT Better

- Server maintenance costs reduced by approximately 66 per cent
- Server footprint cut by around 47 per cent

- Datacentre management simplified
- Maximum availability guaranteed

##### Grow IT Smarter

- Long-term scalability ensured with Dell servers and storage

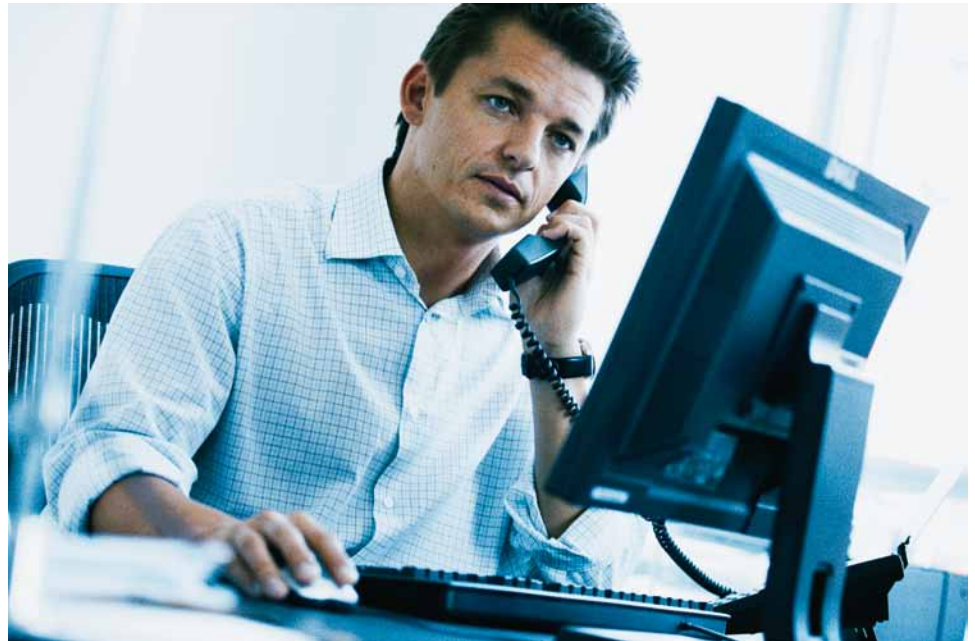
**DELL**

Metabo understands the importance of good hardware. For more than 85 years its tools have been used on construction sites in around 120 countries worldwide, in extreme climates from the arctic to the rain forest. With crucial designs and hardware blueprints moving through its systems, Metabo needs reliable and scalable technology in its datacentres. The company's existing servers and storage were old, unreliable and difficult to administer – with capacity limitations. Frank Sievering, head of IT and processes at Metabo, explains the challenge: "Especially with the older servers, we had to pray that the hardware continued performing well. Maintenance required a lot of effort and external support."

To deliver a more stable and adaptive infrastructure, Metabo wanted to consolidate its servers and implement VMware® ESX server software in the datacentres. It also wanted to cut maintenance costs by moving to SUSE® Linux Enterprise 10. In addition, Metabo needed an extra layer of security from a new mirrored solution. Sievering says: "If important parts of the datacentre are down for even a few hours our processes shut down too, we're no longer able to manufacture or sell electrical tools and additional products."

Sievering approached different solution providers for help to build an infrastructure and was impressed with Dell's approach. Dell ProConsult, part of Dell Infrastructure

Consulting Services, conducted a full system assessment of Metabo's architecture to determine its exact requirements. Dell consultants then provided Metabo with a testing environment to see how different hardware performed in real-life situations, giving the head of IT and processes valuable data on input/output (I/O) performance. A consultant from Dell recommended Dell™ PowerEdge™ blade servers with a move to an internet small computer system interface (iSCSI) storage solution to simplify operations and cut costs.



**“MOST VENDORS PRESENTED US WITH TRADITIONAL STORAGE OPTIONS, BUT DELL’S APPROACH, WITH DELL EQUALLOGIC STORAGE, STOOD OUT AS INNOVATIVE AND PROGRESSIVE IN ITS SIMPLICITY.”**

Frank Sievering, head of IT and processes, Metabo

## HOW IT WORKS

### SERVICES

- Dell ProConsult
- Dell ProSupport for IT
  - Mission Critical option

### HARDWARE

- Dell™ PowerEdge™ M805 and M905 blade servers with Quad-Core AMD 8300 Series Opteron™ Processors
- Dell PowerEdge M1000e modular blade enclosure
- Dell EqualLogic PS5000XV and PS5000E storage area network (SAN)

### SOFTWARE

- VMware® ESX server software
- SAP Enterprise Central Component (ECC) 6.0 enterprise resource planning software
- SUSE Linux Enterprise 10

Sievering says: "Dell analysed our existing environment – testing our storage and I/O performance requirements. We didn't see this level of attention from other firms. In addition, most vendors presented us with traditional storage options, but Dell's approach, with Dell EqualLogic storage, stood out as innovative and progressive in its simplicity."

For each datacentre, Metabo chose a Dell™ PowerEdge™ M905 blade server with Quad-Core AMD 8300 Series Opteron™ Processors to run the company's SAP Enterprise Central Component (ECC) 6.0 enterprise resource planning software. High performing Quad-Core Processors from AMD are essential because of plans to add SAP functionality in the coming months – in the previous environment, this would have been impossible. Six Dell PowerEdge M805 blade servers, housed in a Dell PowerEdge M1000e modular blade enclosure, representing the

platform, are virtualized with VMware ESX server software to create 80 servers that run Metabo's other applications.

These servers are connected to four Dell EqualLogic PS5000XV storage area networks (SANs), which are mirrored onto a Dell EqualLogic PS5000E SAN for backup purposes. For Sievering, the introduction of two Dell EqualLogic SANs has been a key advancement. "The advantage of the Dell EqualLogic storage is its simplicity and scalability. When we need more storage capacity, we just connect a new box – there's no more to it than that. The whole process takes just a few minutes," he says.

Dell consultants worked on-site at Metabo to deliver VMware and Dell EqualLogic training in the form of workshops for the organisation's IT teams.

**“IT’S NOW EASY TO ADD AND MIGRATE VIRTUAL MACHINES WHENEVER NEEDED. WITH VIRTUALIZATION, WE HAVE MORE FLEXIBILITY IN THE DATACENTRE AND NO RELIABILITY ISSUES.”**

Frank Sievering, head of IT and processes, Metabo



Dell technicians then worked to migrate the company's applications – the transition taking just six weeks. All of Metabo's hardware is covered by Dell ProSupport for IT, Mission Critical option with four-hour on-site service. This gives the IT team direct access to Dell Expert Centres, at any time day or night, and a single point of contact for escalation management.

#### **ENVIRONMENT BUILT FOR A THIRD OF THE COST**

Even though Dell designed and deployed an entirely new mirrored environment for Metabo, the cost was a third of what it spent on the previous infrastructure. The move from fibre channel based storage to Dell EqualLogic's iSCSI solution alone has saved the firm €70,000 a year. Dell EqualLogic storage is based on virtualized modular storage architecture, which prevents underutilisation and over-provisioning, but allows for easy scalability. Dell engineered an environment for Metabo that is based on simplicity and manageability, but with optimum performance. Sievering says: "Through standardisation, we've reduced

the complexity of our datacentres. When the time came to migrate our applications, there was no impact on end-users."

#### **VIRTUALIZATION CUTS SERVER FOOTPRINT BY AROUND 47 PER CENT**

Metabo has reduced the number of SAP servers from 15 to eight – six of which are virtualized with VMware ESX server software. Altogether, the company has virtualized 80 servers, enabling Metabo to save space in the datacentre and simplify system management. Sievering says: "It's now easy to add and migrate virtual machines whenever needed. With virtualization, we have more flexibility in the datacentre and no reliability issues."

A key factor in Metabo's decision to work with Dell was its experience of VMware – particularly in load balancing and calculating system capacity. The initial testing that Dell performed for Metabo proved invaluable. Sievering explains: "Dell showed us that we were overestimating demand and capacity. Now, we have greater understanding of our capacity requirements, which reduces costs when deploying new applications."

#### **BLADE SERVERS BRING SIMPLICITY TO THE DATACENTRE**

Sievering soon saw the benefits that blade servers would bring to Metabo's datacentres. Blade servers offered the perfect solution to Metabo's space-saving and scalability needs, but Sievering was convinced when he saw the performance of Dell's PowerEdge M805 blade servers with their low power consumption. The M805 blade servers allow quick virtualization with software and built-in secure digital card for embedded hypervisors. Sievering was also impressed with the servers' Quad-Core AMD Opteron Processors' performance under virtualization. For example, the processors' Rapid Virtualisation Indexing uses Nested Page Table technology, which allows virtual machines to directly manage memory. Sievering says: "With Dell PowerEdge M805 blade servers, we have exceptional performance through virtualization, and the power we need for advanced SAP functionality."

**“DELL UNDERSTOOD OUR REQUIREMENTS,  
AND MADE SURE THAT WE HAD THE RIGHT,  
MOST COST-EFFECTIVE SYSTEM, WHICH IS  
ALSO EASY TO MAINTAIN.”**

Frank Sievering, head of IT and processes, Metabo

**COLLABORATION WITH DELL  
AT EVERY STAGE**

With Dell consultants on hand at every stage of the project – from concept development to completion – Metabo has doubled the capacity in its datacentres at a reduced cost. But for Sievering, the value of Dell’s commitment to the project is revealed in a variety of ways. “Everything’s a lot easier today. For instance, we never have to buy additional network components. Dell understood our requirements, and made

sure that we had the right, most cost-effective system, which is also easy to maintain,” says Sievering.

**For more information on this case study or to read additional case studies, go to [www.dell.com/casestudies](http://www.dell.com/casestudies) and [www.dell.de](http://www.dell.de)**

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