Kaeser Compressors

Keeping the pressure up

"Compaq *AlphaServer*™ systems with *Tru64*™ UNIX and TruCluster™ Server provide us with a powerful vehicle to streamline our global supply chain, optimize resources and business processes, and keep information highly available to our users."

Falko Lameter, CIO, Kaeser Compressors

Company snapshot

Kaeser Compressors is one of the world's leading suppliers of compressed air systems. Companies of all sizes rely on KAESER products in every branch of manufacturing and processing. The Kaeser offering extends from pioneering products and value-added services to turn-key, end-to-end solutions spanning the entire compressed air spectrum. Products range from rotary screw compressors, featuring the proprietary, energyefficient Sigma™ profile airend, through oil-less reciprocating compressors to Omega™ rotary lobe blowers and Omega-paK™ blower packages and vacuum packages. All rotary screw compressors feature the breakthrough Sigma Control™ system developed in collaboration with Siemens AG. Sigma Control is the first compressor control system to integrate an industry-standard PC, paving the way for revolutionary efficiencies in integrated system management.

Kaeser's reputation is built around the pursuit of excellence. It earns and rewards its customers' trust by delivering products, solutions, and services of the highest quality, and by continuing to drive innovation in the design and manufacture of precision compressed air equipment. All products are designed for reliable performance, easy maintenance, and maximum energy efficiency. In short, Kaeser products are "Built for a lifetime."™

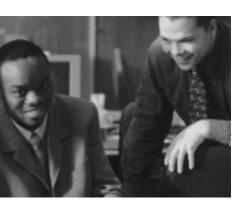
Benefits at a glance

- Streamlined global supply chain
- > Improved customer service
- Powerful, scalable, highly available e-business launch pad

Solution overview

- > Compaq AlphaServer GS160
- > Compaq Tru64 UNIX
- CompaqTruCluster serverconfiguration
- > Compaq StorageWorks™
- > mySAP R/3
- > mySAP APO
- > mySAP CRM (Mobile Sales/Service)





Founded in 1919 in Coburg, Germany, the Kaeser organization remains a family-run business with a payroll in excess of 2500. Kaeser is represented in over 50 countries on every continent through 35 subsidiaries and a competent sales and service organization.

Ahead of its time

Kaeser has been powering its SAP R/3 enterprise resource planning system with Compaq *AlphaServer* systems and Compaq *Tru64* UNIX since 1993. With its international — and ever-expanding — operating base, Kaeser has since been reaping the collective benefits of a single, bird's eye view of enterprise operations, tighter control of the supply chain, reduced inventory levels, and greater responsiveness to changing customer demands and market conditions.

R/3 has already been rolled out at over half of Kaeser's international subsidiaries. Almost all modules are in use, with PP (Production Planning), QM (Quality Management), and PM (Plant Maintenance) also supporting mission-critical production processes in Germany and France. As soon as an appropriate telecommunications infrastructure is in place locally, Kaeser plans to roll out R/3 at the remaining locations. Installed at the company's headquarters in Coburg, the system currently serves 1200 users.

"We have been relying on Compaq computing since 1993. Experience has confirmed that a genuine 64-bit architecture, with both a 64-bit CPU and operating system, gives us the performance, scalability, and reliability we need to improve the efficiency of our business processes and expand at speed," explains Falko Lameter.

Taking 64-bit power to the next level

Kaeser now faces a new challenge — harnessing the power of the Internet to develop new business models that create real customer value. "We are looking beyond the immediate opportunities of e-business and virtual marketplaces at the prospect of "moving" our compressors to the Web. PC-based, Web-enabled telemonitoring and teleservice could open up a host of exciting new opportunities for us," enthuses Lameter. And so, on the crest of the information revolution, Kaeser once again turned to Compaq to provide the enabling, 24x7 technologies and products.

The GS Giant

"Essentially, we needed a supercomputer to power our e-business vision. We wanted a machine that could handle everything we throw at it — from mobile customer relationship management to global supply chain management — and still stay up and running. The *AlphaServer* GS160 was the obvious choice for us," explains Lameter.

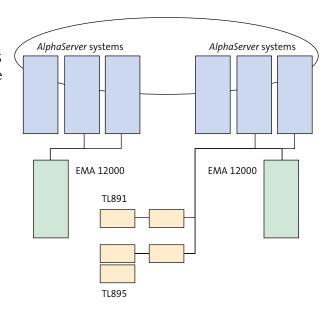
Kaeser was thus the first company worldwide to go live with *AlphaServer* GS160 and TruCluster Server V5.1. Lameter is more than impressed with the speed and reliability of the new system. "We have created a high-performance, 24x7 environment that our worldwide organization can depend on," he says.

The new infrastructure is based on a centralized Compaq AlphaServer platform running Tru64 UNIX Version 5.1 operating system with TruCluster. Two AlphaServer GS160 cluster nodes (in 2 separate buildings) are connected with Memory Channel technology for automatic failover. This highly scalable, disaster-tolerant deployment includes one StorageWorks EMA12000 storage system per server with three HSG80 Fibre Channel Array Controllers. A TL895 is used for data backup. The StorageWorks solution provides a net capacity of 378 GB. The data is protected with disk mirroring (RAID 1). RAID 5. Shared storage increases flexibility and transparency, at the same time reducing storage costs.

"With our Compaq Storage Area Network, we have an entirely transparent overview of our capacity. We can add and reassign storage at the drop of a hat. Particularly given the exponential data growth in an SAP environment, a highly scalable storage model was essential for us," adds Lameter.

The ultimate in availability

With the TruCluster Server V5 Cluster File System, the entire cluster is managed as a single system for maximum manageability and availability. The computing load can be balanced and reassigned as needed. Hardware partitioning also gives Kaeser the operational flexibility to install mixed operating systems and multiple databases on one system. It also means that an application can failover to another partition where another cluster node is installed. Availability is further increased by backing up the data on the mirrored partition only (Fibre Channel). This minimizes the load on the productive system. In addition, online expansion, maintenance, repair, and reconfiguration through hot-swap and hotadd of major system components virtually eliminates the need for "scheduled" downtime. "In short, we have what we need to thrive with mySAP.com in the Internet Age — a highly available, mission-critical enterprise platform with automatic application failover," summarizes Lameter.



Compaq Storage Area Network





e-business roadmap

With this new platform, Kaeser has put the building blocks in place to pursue its e-business strategy around mySAP.com e-business solutions. During the course of 2001, Kaeser plans to introduce the mySAP Workplace enterprise portal to create a "virtual value chain" and extend business process integration beyond company walls. Kaeser will be looking at the benefits of b2b e-commerce, possibly also building its own e-shop to streamline procurement across partners and suppliers.

It will also concentrate on tighter Supply Chain Management with mySAP SCM. This has already been installed and will go live as soon as it has been approved by SAP for *Tru64* UNIX. On the mySAP CRM front, Kaeser is already equipping its worldwide mobile sales and service force with the necessary infrastructure for mobile computing and plans to be live with mySAP CRM 3.0 solutions for greater mobility and responsiveness by the end of the year. Kaeser also plans to investigate mySAP Business Intellegence as part of its knowledge management drive.

Thanks to hardware partitioning with the *AlphaServer Tru64* platform, Kaeser will be able to integrate all of these mySAP.com e-business solutions on the one system. "We have put a technical infrastructure in place that gives us the headroom we need to gradually roll out our e-business strategy as each window of opportunity arises," explains Lameter.

Lowest TCO, highest integration

The AlphaServer GS series combined with Tru64 UNIX offers Kaeser unsurpassed integration between Microsoft Windows application servers and back-end UNIX servers. Key features such as UNIX/NT security authorization and single system sign-on ensure that users can seamlessly access the services and functions they need. This highly integrated, flexible landscape also offers cost-of-ownership paybacks. "Looking realistically at TCO over the entire solution lifecycle, a seamless upgrade path within the AlphaServer family has served us well over the years. Most importantly, we don't have the headache of upgrading or migrating every time the business throws something unexpected at us," adds Lameter.

Partner to rely on

Kaeser hopes to consolidate the benefits it has reaped with its Compaq-powered data center in Coburg thus far. It has already reduced inventory costs by \$10 million. Further optimization of management processes, acceleration of turnaround times, and better control of inventories will double this figure over the next few years, particularly through the deployment of SAP APO. "Not only is Compag the clear leader in 64-bit computing, no other vendor can bring such a broad range of best-in-class services and products to the table to cover our entire requirements spectrum," concludes Lameter. "From PCs to high-end servers; mobile computing devices to powerful storage systems — not forgetting high-caliber integration and support services — Compaq is definitely the partner of choice for an enterprise infrastructure that can grow with our business for decades to come."

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