



## Koehler enhances supply chain operations with HP Integrity servers powered by Intel® Itanium® 2 processors

World-class paper manufacturer gains 50 percent higher computing performance and long-term continuity

Success story

“The combination of HP Integrity rx5670 servers with Intel® Itanium® 2 processors, Microsoft® Windows® Server 2003 Enterprise Edition, the 64-bit edition of Microsoft SQL Server™ 2005, and SAP R/3 Enterprise gives us the mission-critical performance and reliability we need to maximize efficiencies in the production line and keep our supply chain running smoothly.”

-Karl Haas, Database Specialist, The Koehler Group

The Koehler Group is one of the world’s most innovative, successful manufacturers of high-quality, specialty paper. Headquartered in Oberkirch, Germany, near the French border, the company was founded in 1807 by Otto Koehler and has remained in the hands of the Koehler family. The company is best known for its reacto carbonless, Koehler thermal, fine, decor and Euler colored papers. Koehler produces around 455,000 tons of paper each year throughout five mills in Germany and distributes 70 percent of its products internationally. Generating annual revenues totaling 570 million EUR (682.6 million USD), Koehler has captured a leading position in many of its business lines.

Through its France, Italy, U.K. and U.S. warehouses, the company runs an extensive international sales and distribution network. To improve productivity, streamline business processes and enhance operations along an international supply chain, Koehler required a powerful, reliable and continuously available IT infrastructure. In satisfying these requirements, the manufacturer was the first company worldwide to run its SAP solutions on the Microsoft® SQL Server™ 2000 and Microsoft Windows® 2000 platform and the second company worldwide to migrate its SAP solutions to HP Integrity rx5670 Servers with Intel® Itanium® 2 processors. The net outcome is a flexible, manageable platform that provides 24x7 continuity, fast response times and exceptional performance for supply chain processes.

**Selecting a platform to handle an increased number of SAP users, data and transactions**

Koehler began evaluating a new server platform in 2003 when it wanted to upgrade from SAP R/3 running on an x86-based server platform with 32-bit software to SAP R/3 Enterprise. While seeking to improve functionality, Koehler also considered

integrating its enterprise resource planning (ERP) environment with the SAP for Mill Products solution. However, the new projects would stretch the IT platform to the limit, causing performance bottlenecks, memory capacity shortages and slower production.

“Our SAP systems are mission-critical,” says Bruno Schwelling, Executive Board Member at Koehler. “System downtime quickly results in production downtime for us. The sensitivity of our carbonless paper, for example, means they require special storage handling. If we cannot move the paper along our supply chain due to a system outage, we have to stop producing it.”

Even allowing 10-20 percent more computing power for the SAP solution upgrade alone, the company still needed massive computing strength. As Alexander Fischer, Chief of IT Infrastructure at Koehler, explains, “Company management was pushing an ‘adaptive enterprise’ strategy, which involved putting a platform in place with the power, flexibility and scalability to handle anything we throw at it over the next few years.”

After testing them for three months, Koehler installed two HP Integrity rx5670 Servers featuring 64-bit Intel® Itanium® 2 processors, which unite to provide a smooth path to new technology and a choice of in-box upgrades. The power of 64-bit Intel® Itanium® 2 processors coupled with vast random access memory (RAM) meant that Koehler could effortlessly overcome performance and memory limitations of its previous 32-bit platform and maximize the benefits of 64-bit capabilities across all solution layers. Therefore, Koehler launched Microsoft Windows Server 2003 Enterprise Edition (64-bit), Microsoft SQL Server 2003 Enterprise Edition (64-bit) and most recently Microsoft SQL Server 2005.

Success story



“The combination of HP, Intel and Microsoft offers excellent stability and manageability for our SAP solutions,” adds Karl Haas, Koehler’s Database Specialist. “Although we spent several months preparing for the migration, the actual changeover only took six hours. The entire process was smooth and trouble free. And we’ve had continuous uptime since we went live.”

Fischer attributes the smooth engagement to the team approach of HP, Intel and Microsoft who all pulled together to resolve any issues Koehler experienced in the project. “Before venturing into such new terrain, we needed to be absolutely sure that we could rely on committed, hands-on and instant support from HP, Intel, Microsoft and SAP. All partners lived up to their promise—the level of backing we received was nothing short of amazing,” Fischer acknowledges.

**A strong IT foundation satisfies pressing compute needs**

Later, after going live with the new SAP solution, Koehler introduced SAP Advanced Planner and Optimizer (APO) to manage its sales, distribution and product planning processes on a uniform IT platform, and SAP Supply Chain Management (SCM) to further increase agility and efficiency. These added functionalities, along with business growth and higher transaction activities related to the manufacture of 23 percent more tons of paper a year, have contributed to an active SAP

**“Before venturing into such new terrain, we needed to be absolutely sure that we could rely on committed, hands-on and instant support from HP, Intel, Microsoft and SAP. All partners lived up to their promise—the level of backing we received was nothing short of amazing.”**

-Alexander Fischer, Chief of IT Infrastructure, The Koehler Group

## Success story



environment at Koehler. The boost of activity is also evident in the SAP database, which now houses 300GB of data but is growing at a rate of about 40GB annually. Even at these levels, Koehler can handle the growth because HP Integrity servers with Intel® Itanium® 2 processors deliver the speed and processing capabilities necessary for bandwidth-intensive solutions and moving large volumes of data between disk and memory quickly during supply chain operations.

“We haven’t lost our performance edge with growth,” comments Fischer. “In fact, our HP Integrity servers with Intel® Itanium® 2 processors provide consistent outstanding performance year after year. We have increased the number of users by 120 since we initially deployed the platform, and approximately 300 of the total 420 SAP users access the SAP environment simultaneously. Yet we have no performance problems. We are extremely pleased with the performance of the Integrity platform.”

The transition to the Intel® Itanium® 2-based microprocessor architecture increased computing performance by as much as 50 percent. The time

required to execute certain jobs, such as compiling inventory lists and reports, has been cut in half. With faster access to strategic information, the company can now act more quickly to market conditions and avoid disruptions in the production line. “The combination of HP Integrity rx5670 Servers with Intel® Itanium® 2 processors, Microsoft Windows Server 2003 Enterprise Edition, the 64-bit edition of Microsoft SQL Server 2005, and SAP R/3 Enterprise gives us the mission-critical performance and reliability we need to maximize efficiencies in the production line and keep our supply chain running smoothly,” explains Haas.

The efficiencies extend into IT administration, as well. Because Koehler runs its SAP solutions in conjunction with Microsoft Windows and SQL Server, the IT staff enjoys easier administration, which reduces IT costs. Fischer comments: “It is cost effective for just seven staff members to administer and maintain our Integrity servers and 650 desktop computers running under Windows, because we only need to know one operating system and one database.”

## Success story

### HP Integrity servers based on Intel® Itanium® 2 processors help put profits into papermaking

For the paper group, investment protection and a quick return were also important considerations. From the beginning, Koehler was confident that the Integrity platform would provide flexibility, expandability and great value over time—and it has. This was evident in December 2005, when the time came for a server expansion. One staff member single-handedly took on the task of increasing the servers' memory capacity from 8GB to 24GB.

"It was a simple exercise that only took 30 minutes," Fischer says, "and it was accomplished before users noticed any out-of-memory issues. At the rate we're growing, we'll need 40GB more memory capacity

The cost/benefits of HP and Intel® technologies overall are clearly tipped in Koehler's favor. Based on a 20 percent increase in procurement costs (relative to a 32-bit environment), Koehler received its return on investment in less than two years. "Essentially, this project clearly shows that the benefits of next-generation technologies are not restricted to large enterprises. Medium-sized businesses such as Koehler can also enjoy rapid return on investment. Not only have we doubled our revenue over the last 20 years without increasing our administrative headcount, but we have also managed to increase productivity and motivation of our workforce through more powerful, modern technology," adds Schwelling.

User productivity comes, in some measure, from the ability of Integrity servers and Intel® Itanium® 2

**"Essentially, this project clearly shows that the benefits of next-generation technologies are not restricted to large enterprises. Medium-sized businesses such as Koehler can also enjoy rapid return on investment. Not only have we doubled our revenue over the last 20 years without increasing our administrative headcount, but we have also managed to increase productivity and motivation of our workforce through more powerful, modern technology."**

—Bruno Schwelling, Executive Board Member, The Koehler Group

in two years, but we can add it easily and take advantage of the next generation of Intel processors—without replacing our Integrity servers and making a large IT investment. HP and Intel provide an economical upgrade path so that we don't spend a great deal of money, but we earn a lot more by using their technologies."

In addition, because Integrity servers have generous memory capacity and are built specifically to provide resiliency and redundancy for continual business performance, Koehler dedicates a low-cost, expandable HP StorageWorks 1000 Modular Smart Array and an HP StorageWorks 30 Modular Smart Array Enclosure to its Integrity database server for storage and additional data protection. "The memory capacity of Integrity servers is quite substantial, so we use HP StorageWorks Modular Smart Arrays and save money."

processors to deliver at least 30 percent faster response times during high-intensity workloads. "When we see our personnel working fluently and easily with IT and not restricted by slow computing response, we know that our Integrity platform is having a positive effect and helping employees to be more productive," Fischer concludes.

In essence, Koehler's flexible, future-proof platform is helping to improve productivity and streamline business processes. Best of all, the innovative platform helps keep Koehler's information and premier papers flowing smoothly along an extensive supply chain for the benefit of customers and employees alike.

## Success story

### Challenges:

- Create an adaptive infrastructure with power, flexibility and scalability
- Overcome the bottlenecks and memory constraints of the previous 32-bit environment
- Upgrade to newer SAP solutions
- Keep information and paper flowing smoothly along an extensive supply chain

### Solution:

#### Technology Highlights and Hardware

- HP Integrity rx5670 Server with two 1.5GHz Intel® Itanium® 2 processors functioning as an SAP database server
- HP Integrity rx5670 Server with four 900MHz Intel® Itanium® 2-based processors operating as an SAP R/3 Enterprise central instance server
- HP StorageWorks 1000 Modular Smart Array (MSA1000)
- HP StorageWorks 30 Modular Smart Array (MSA30)

#### Software

- SAP R/3 Enterprise (420 users)
- SAP Supply Chain Management (SCM) application
- SAP Advanced Planner and Optimizer software
- SAP for Mill Products solution
- Microsoft Windows Server 2003 (64-bit) Enterprise Edition
- Microsoft SQL Server 2005 (64-bit)

#### HP Services

- Server installation and integration
- Hardware warranty

### Results:

#### Agility

- Up to 50% increase in computing performance
- More rapid access to information for quicker reactions to market conditions
- Improved flexibility and functionality of the 64-bit software and hardware platform
- Greater efficiency and user productivity

#### Value

- Excellent price/performance
- Scalability and flexibility to grow as needs change without platform re-architecting
- Economical upgrades

#### Simplicity

- Easy-to-expand memory capacity
- Administration ease and operating system uniformity

#### Customer Profile

The Koehler Group is one of the world's most innovative, successful manufacturers of high-quality, specialty paper. Headquartered in Oberkirch, Germany, the company is best known for its reacto carbonless, Koehler thermal, fine, decor and Euler colored papers. Koehler produces around 455,000 tons of paper each year throughout five mills in Germany and generates annual revenues totaling 570 million EUR (682.6 million USD).

### Why Intel and HP?

- Speed and processing capabilities necessary for bandwidth-intensive solutions
- Competitive strength, upgradeability, and value of HP Integrity servers and Intel® Itanium® 2 processors
- Continuity knowledge and skill
- Long-standing HP, Intel and Microsoft partnership