

Precision welded and still wide open – SAP under Linux on xSeries at KUKA.



Overview

■ The Challenge

Platform migration and installation of a new hardware with change of operating system and at the same time upgrade to a current SAP® release for a significantly increased number of users

■ The Solution

Industry: Industrial

Application: SAP R/3®

Hardware: IBM @server® xSeries™

Software: Linux®, Oracle®

Services: IBM Global Services

■ The Benefits

Open, low-cost system environment with potential for expansion; optimal co-ordination between application, hardware and operating system providing maximum stability; huge performance improvements for more users

Ideas, Service, Competence – Consistency from the initial design to the finished product. This is the banner under which KUKA Schweissanlagen GmbH, Augsburg, presents its engineering services and flexible production systems with the latest welding and robot technology for the automobile industry as well as its component manufacturers and suppliers worldwide. The focus points are the process chains in the production of car bodies and chassis parts. The name KUKA is synonymous with success: the KUKA Schweissanlagen Group is number two in the world market. With almost 3,000 employees in 24 countries, the company produced a turnover of roughly 660 million Euro in 2002.

High-tech requires optimal IT performance.

A high-tech company of this size requires information systems with adequate performance. Here, the smooth co-operation between the engineering section and the

commercial side is important. KUKA Schweissanlagen relies on proven standards. Having used SAP for many years (first SAP R/2® on the host), they then installed a client/server configuration with SAP R/3 about five years ago. Various systems (including CATIA®) specially adapted to the customers' needs play a crucial role in CAD. Optimized interfaces and automated processes are used to link them both with the customers' systems and their own in-house business management systems. To this end, nearly all SAP solutions are used at KUKA, whereby priority is placed on logistics, procurement and production control.

More freedom with Linux.

The more the requirements have increased in recent years, the more the hardware used up until now has been pushed to its limits. The previous SAP R/3 version was also no longer functionally 'up-to-date'. It was clear to Brigitte Spier, IT manager at KUKA Schweissanlagen, that this was no longer good enough for the more than 300 SAP users: "We were facing a radical revamp: new hardware, new operating system and an upgrade to the latest SAP R/3 Version 4.6C." Equally obvious, however, was that only a new total solution would be considered, and one with much to offer: stability, reliability, security, flexibility, scalability, efficiency and most importantly – freedom and openness. Brigitte Spier: "We do not

want to be restricted in the options available to us. We want to be independent and flexible in using the systems best for us and best suited to our applications. Linux fully meets our requirements.”

Is there one single solution that meets all these criteria? At the system operation level, the answer was soon found: Linux. With this open source software, not only does the user benefit from a low initial outlay and low-cost license fees, but, the continuous operating costs are also as low as possible thanks to the ease of the system administration and system maintenance. The Linux source code is freely accessible, ensuring continuous extension and optimization arising from practical experience. There is no dependency on one single provider. Openness and freedom, exactly as they should be.

Scalable stability with IBM eserver xSeries 440.

What server platform allows one to make best use of the advantages of Linux? Brigitte Spier had a ready answer to this question too: “The x440 and Linux form an ideal combination for us.” The IBM Enterprise X-Architecture® from the top model of the xSeries family (equipped with Intel® processors), provides innovative technologies as used in mainframe computers. The result is a perfectly balanced high-performance server with maximum availability, stable performance and optimal scalability. As the requirements placed on it grow, so does the server. XpandOnDemand allows simultaneous multiprocessing (SMP) with up to 16 processors – flexible and low-cost.

The sizing led to the installation – carried out by the established hardware partner Fritz and Macziol – of two x440 servers, each with four processors and 8 GB real memory: in addition to the test and

development server, a production server that is operated as central system and linked to an external storage system. As the configuration is identical, one can make a rapid switch over from the production to the test server at any time, should a back up become necessary. In the meantime, the system serves over 300 SAP users, who can now work with good response times, and even when dealing with batch applications, the runtimes have been greatly reduced (some by a factor of 6 to 7).

Upgrade and migration in dual action.

Before these successes could be run in, Brigitte Spier and her colleagues had a lot of work to do. The platform migration and the upgrade had to be achieved ‘in one go’ in a pretty narrow time frame of four days. A ‘dual action’ of this nature requires the most thorough planning. The IT manager had prepared as well as possible using sophisticated tests. But still, in the transition at the beginning of October 2003 they lived through some, in her words, ‘nerve racking days – and nights’. She was, however, not alone. Employees from SerCon, a service subsidiary to IBM Deutschland with a proven track record in SAP deployments were at her side to solve any problem – “a support, exactly as one would wish it”, says Brigitte Spier, full of praise for the support. The result is evident: a high performance solution with full potential for further expansion based on the mySAP® Business Suite and a low-cost server platform open to all future requirements.

Further Information.

To learn more about how the IBM and SAP alliance can help your business, please visit: **ibm-sap.com**



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