

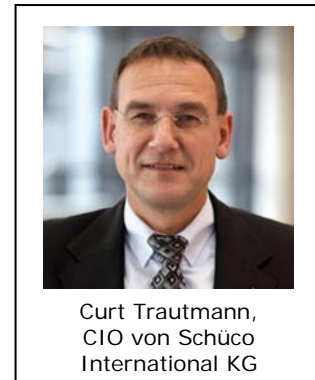
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## SAP Performance Problems

### Hardware only helps to a limited degree

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***An unpleasant project that went sour for Kurt Trautmann in the SAP rollout phase. Kurt Trautmann, CIO of Schüco, scheduled a "health check" of the performance of his systems, due to declining performance.***



**Cancelled for lack of real problems:** Only a few days after the new SAP software went live, Schüco CIO Kurt Trautmann cancelled the daily planned project meeting. The meeting was supposed to discuss technical errors and problems with the new system. However, the efforts made during an intensive quality and performance check paid off. The users were able to work with the new software from Day One without any notable limitations. But just a few months before, it didn't look like that at all.

At first, everything went as planned: For 2007/2008, Schüco planned an international rollout of various SAP modules. The plan was to install a CAD-connection to Planning and Logistics, and to Sales and Distribution. Conversion was to take place in several phases. CIO Trautmann wanted to replace various legacy applications at various business location with SAP R/3 4.7.

However, the initial go-live resulted in problems. Slowly, and initially only measurable by means of technical tools, the performance of the system began to sink. "Week after week, we witnessed poorer performance", reported Trautmann. Luckily, the users did not notice anything, "But it was only a question of time until the first SAP user would complain", the CIO already knew.

### Right in the middle of the SAP rollout

It was the worst possible moment. The IT team already had a tough time behind it with the Go-Live, and had to already get ready for the next part of the project. The implementation at the most important and largest Schüco location was right around the corner. Trautmann comments, "Exactly at the time when everyone wanted to relax a bit in order to get ready for the next big task, a performance issue came up!".

Ralph Treitz, the Managing Director of VMS and a specialist in SAP measurement, states, "These things never happen at the right time". The ex-SAP employee founded VMS five years ago, and since then has collected data of various company landscapes. More than 1,700 SAP systems have been stored in the database, using an algorithm developed in-house. They all provide information on where and when the IT motor is having problems.

At Schüco, a team was set up that had all the competencies of the IT center, including SAP Basis, and the various applications. "A big task at the start of the project was to convince the team of how critical and also how doable a project like that is, parallel to another SAP rollout", Trautmann recalls.

### **Hard work, not magic**

The initial workshop with VMS was met with great anticipation and also a bit of skepticism. The result was not exactly what some had privately hoped for. Trautmann explains, "Instead of promises of somehow finding the magical parameter that would make the performance 'super', a work program was decided on". He compares it with a march through a jungle. The team had to go through it alone, "But the people from VMS were able to help us find the way". Not magic, but rather assistance, and showing others how to help themselves through the sheer unending number of possibilities of gaining or losing performance. That was the first sobering moment.

Then the jungle cleared. VMS measured the systems and was able to find potential performance issues, using the other SAP landscapes as a comparison. Nothing was left out: parameterization was looked at, just as customizing, technical tuning, and programs.

From week to week, measurable successes were achieved, and they gave the team the assurance that they were working on the right areas. In a short time, all the measures that were suggested were implemented. The dynamic and motivation of the team increased. As soon as the first tasks were done, they requested additional input on where the next performance killers might be. "We were thus able, within two months, to do the right things", said Trautmann.

"We were able to shine a light on those places where the problems arose", describes Treitz. From the depths of the IT systems, all the way to the user - the problems can have many different causes. But they are mostly woven together, which makes analysis more difficult. Only in the most rare cases is it the most obvious cause, which is: too little hardware. "Thanks to sinking prices, most companies are well equipped in that area", said the VMS managing director. Much more often, it is simply the sheer quantity of data that is being processed by the systems. "If you have the wrong customizing, you can buy hardware until the cows come home, and still not be successful".

The possible causes of performance leaks range from the technical side, to the architecture of the in-house solutions, to the use of the SAP standard software, which the SAP developer might not have considered. At Schüco, the problems were on both sides; the system worked with the desired performance.

But that only took care of part of the work. The performance optimization ran parallel to the preparation of an important SAP rollout. "We really wanted at that time to be sure that the upcoming go-live of our largest business location would not degenerate into a similar situation", said Trautmann.

But how would Schüco be able to measure the performance of a system that was not even there yet? Would it make sense to just let it run and risk user anger, and then make corrections to the production system? For CIO Trautmann, that is a typical method that is used, but not a real option. He insisted that everything would have to run without big problems from the very first day.

Schüco discussed with VMS a process of projecting the current performance for an expected full system load. That finally happened in October of last year, in other words, about three months before the planned start, as the target hardware was installed for the production start, in January 2008. User profiles were defined, the load profile in the training systems was measured, and finally VMS created a forecast that took into account how the SAP landscape

would change, from a qualitative and quantitative point of view.

Among other things, it was shown that the database (DB2 and IBM) did its work up to the next rollout, but when the load went up, produced poor response times. A specialist from the manufacturer had to come by and parameterize the system. There was a bit of surprise that Schüco wanted to tune a still (then) well-running system.

In mid-December, they were where they wanted to be: After software optimization, parameterization, and database tuning, Trautmann and his team had created the prerequisites to go into the go-live with a secure feeling. With good reason. Not without some pride, the CIO declared, "The system scales excellently. Since then, we have had no performance problems in our SAP system, even though the load on the system generated very high peaks at times, based on our business transactions".

### **A must for all SAP applications**

Even months after the end of the project, the enthusiasm is palpable. And not just in relation to a well-performing SAP system. "I see it as a real victory that we have created real know-how and a consciousness for performance in our entire IT team", emphasized the CIO. "We were able to localize and deal with short-term reductions in performance after the installation of our last Schüco optimization release, without any external help".

Trautmann compares the "Performance Health Check" with medical prevention. "It is a must for all SAP applications, if one has the goal of having optimum performance available, without achieving that through an enormous hardware landscape". The next performance project is already planned: the optimization of the SAP BW system.

#### **Schüco: The Company**

Schüco is a company headquartered in Bielefeld, Germany. The company was founded in the 1950s and specializes in building exteriors, having grown from a company that in the 1950s manufactured windows and building exterior parts. To this day, the product range has expanded to exteriors, glass roofing, windows, doors, as well as building technology and solar technology. Schüco had sales of 1.8 billion euro in 2007. Worldwide, the company employs approximately 5,000 people.