

HP and SteelEye help Phoenix Contact achieve enterprise-class high availability for mySAP™ Business Suite on Linux at lowest possible TCO



“With HP, we didn’t have to choose between an expensive high-availability deployment and disruptive system failures. HP ProLiant Servers running Linux and SteelEye LifeKeeper® software give us enterprise-class high availability for our mission-critical mySAP™ Business Suite applications at substantially lower cost than any of the alternatives we looked at.”

Dietmar Stein, SAP Technical Director at Phoenix Contact

Innovation in Interface

Based near Hanover, Germany, Phoenix Contact (www.phoenixcontact.com) specializes in the manufacture of electronic switches. With over 5000 employees worldwide, it is a market leader in the design and manufacture of printed circuit board connectors, automation technology and surge protection. Phoenix Contact products are found in all branches of industry from construction to manufacturing. A worldwide sales network ensures customer proximity in all major global markets. In keeping with the company’s philosophy “Innovation in Interface”, it works in close partnership with its customers to develop innovative solutions for their design challenges and constantly improve its offering.

High availability on a tight budget

In 2001, Phoenix Contact decided to replace its proprietary industry solution. Having purchased the source code of this solution when the developer folded some years before, Phoenix Contact had continued development and maintenance work internally. It was looking for a solution with greater flexibility and functionality. It also wanted to pave the way for new applications such as customer relationship management and business data warehousing. Costs played a central role in the decision.

“We looked very carefully not only at upfront investment costs, but also at total cost of ownership over the entire solution lifecycle. Issues such as manageability and scal-



ability featured prominently in this equation. At the same time, however, we did not want cost considerations to impact negatively on uptime,” explains Dietmar Stein, SAP Technical Director at Phoenix Contact.

Matched to perfection

Phoenix Contact realized that mySAP™ Business Suite was best equipped to deliver the functionality, flexibility and adaptability it needed. Given that the old solution ran on a UNIX platform, Phoenix Contact decided to investigate all options before deciding on the hardware infrastructure. Internal tests conducted in 2001 quickly revealed that HP ProLiant servers clearly out-performed UNIX alternatives in terms of price/performance.

“In addition, we had been working with HP for eight or nine years and knew we could rely on excellent support and outstanding product stability,” continues Dietmar Stein.

Having reduced hardware costs through industry-standard, Intel-based ProLiant servers, Phoenix Contact turned to the Linux operating system to lower software licensing costs. Powerful and reliable, open-source Linux software generally offers significantly lower upfront and total overall cost than alternative operating systems.

The only remaining issue was that of availability. How could Phoenix Contact be sure that the new deployment would deliver enterprise-class levels of availability? They needed an innovative, tried-and-tested and fully certified high-availability clustering solution for mySAP Business Suite on Linux. So they turned to SteelEye® Technology.

Single clustering solution

SteelEye LifeKeeper® for mySAP Business Suite from SteelEye Technology is a high-availability clustering solution designed specifically for mySAP Business Suite on Linux. It is universal, modular and offers automated and high-performance application-centric monitoring, failover and failback of all components within a mySAP Business Suite-based environment (servers, storage, applications, database and network infrastructure components). It has been certified by HP.

LifeKeeper maintains the high availability of clustered Linux systems by monitoring system and application health, maintaining client connectivity and providing uninterrupted data access.

“SteelEye LifeKeeper is one of three products we reviewed to provide high availability for mySAP Business Suite,” says Dietmar Stein. “We selected

Hardware

- Productive environment:
SAP R/3 runs on a rack-mounted HP ProLiant server cluster with one HP ProLiant DL760 server as the database system and one as the application system (4/8 Xeon processors and 16 GB RAM).
- Development system:
HP ProLiant DL580G2 with 4 Xeon processors and between 10 and 16 GB RAM.
- Quality assurance system:
HP ProLiant DL580G2 with 4 Xeon processors and 16GB RAM.
- mySAP BI and mySAP CRM are installed on the same platform as SAP R/3 (2 HP ProLiant DL760, 1 HP ProLiant DL580G2, 1 HP ProLiant DL580G2).
- The clustered servers access a HP Modular Smart Array 1000 (MSA1000) over an HP Surestore fibre channel switch with auto-sensing functionality and transmission speeds of up to 2 Gbps.

Software

- SUSE Linux Enterprise Server 7 and 8.
- SteelEye LifeKeeper for mySAP Business Suite.
- Oracle 8.1.7.4 and 9.2.0.3.
- Microsoft® Windows® 2000 for the mySAP CRM Mobile Sales terminals.
- SAP solution-based landscape:
 - mySAP Business Suite
 - mySAP Business Intelligence
 - mySAP Customer Relationship Management
 - SAP R/3 with Sales & Distribution (SD), Materials Management (MM), Financial Accounting (FI), Controlling (CO).
- Users: 150, planned to increase to 1600 by 2005.
- Dialogue response times: 260 ms on average.



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LifeKeeper because it provides the best administration, functionality and greatest flexibility. LifeKeeper provides high-availability support to the broadest range of modules in the base product, and offers the most options for expanding and scaling our cluster configurations to meet our changing needs over time. Above all, we selected LifeKeeper because it is the only high-availability product we evaluated that is designed specifically for the mySAP Business Suite. Other products are based on general application security, which doesn't give us the level of protection or other features that we require."

Gradual roll-out

Phoenix Contact turned to CC Computersysteme und Kommunikationstechnik GmbH (Computer Concept) to implement the hardware platform and clustering solution. Both HP ProLiant servers are active in the cluster configuration, one acting as database server and the other as application server. The Oracle database and SAP applications are installed on both servers. In the event of a fault in any of the application components being monitored, LifeKeeper registers the loss of "heartbeat" and automatically fails over the individual component to the healthy server. Users hardly notice the changeover. Once the fault has been resolved, LifeKeeper offers the option of either automatically or manually falling back

the system. The HP Surestore fibre channel switch enables transmission speeds of up to 2 Gbps, ensuring instant availability of all mission-critical data. It is connected to an HP Modular Smart Array 1000 (MSA1000).

The system went live with the first modules in August 2002. Phoenix Contact plans to gradually roll out new applications and solutions, ultimately turning off its old system in 2005. The SAP system is configured as a central instance. At present, one other subsidiary in Germany also uses the system. A second subsidiary is set to switch over in the near future. mySAP Customer Relationship Management (mySAP CRM) and mySAP Business Intelligence (mySAP BI) were introduced in 2002. They also run on a ProLiant platform.

Objectives exceeded

The new deployment perfectly balances Phoenix Contact's need to reduce costs and ensure consistently high levels of availability for mySAP Business Suite. Thoroughly tested on the HP ProLiant sever and storage platforms, LifeKeeper for mySAP Business Suite on Linux gives Phoenix Contact the assurance of automated fault resilience across the entire SAP solution-based environment.

"By combining the excellent price/performance of industry-standard, Intel-based HP ProLiant servers with the cost efficiencies of Linux and the high availability of LifeKeeper Linux clusters, we have created a platform of exceptional reliability, performance and scalability that promises amazingly low TCO," concludes Dietmar Stein. "Past experience has shown that we can rely not only on the excellent quality and reliability of HP products, but also on their committed and rapid support."

Phoenix Contact is confident that its customers will also reap the benefits of the new deployment. Thanks to the central management of customer data in mySAP CRM, company employees now have instant access to all customer data and can give customers qualified, up-to-the-minute advice and information. Phoenix Contact is considering rolling out the mySAP CRM Mobile Sales solution to empower its field force with customer and order data on the move.



Challenge

- Increase flexibility and agility by replacing proprietary system with a solution suite supporting new functionality such as e-services and customer relationship management.
- Find a powerful, scalable platform to power mySAP Business Suite and dynamically expand as new applications are added.
- Maximize return on IT investments, optimize deployment of resources.
- Enable enterprise-class high availability for mySAP Business Suite on Linux.
- Total availability solution to monitor all resources and reduce administration effort across the entire SAP® solution-based environment (servers, storage, applications, database and network infrastructure components).

Solution

- mySAP™ Business Suite with mySAP Customer Relationship Management (mySAP CRM) and mySAP Business Intelligence (mySAP BI).
- Robust, industry-standard HP ProLiant DL760, ProLiant DL580 and ProLiant DL760 servers.
- The HP ProLiant servers are clustered, accessing an HP Modular Smart Array 1000 (MSA1000) over a HP Surestore fibre channel switch.
- Combination of ProLiant Servers, the Linux open-source operating system and SteelEye LifeKeeper for mySAP Business Suite.
- Fully certified by HP, LifeKeeper for mySAP Business Suite is the first single solution to provide high-availability clustering protection of the entire mySAP Business Suite environment on Linux.

Results

- Comprehensive, complete family of adaptive business solutions.
- All computing resources are fully utilized – no need to invest in idle, redundant servers.
- Availability levels of 99.98%.
- Maximum transparency across the entire mySAP solution-based environment, reduced administrative effort through monitoring and rapid service availability through automatic failover and failback capabilities.

SteelEye Technology

SteelEye Technology is a leading provider of enterprise IT reliability solutions for business continuity and disaster recovery. The SteelEye LifeKeeper family of application-centric data protection, high-availability clustering and disaster recovery solutions are easy to deploy and operate, and enable enterprises of all sizes to ensure continuous availability of business-critical applications, servers and data.

SteelEye builds relationships with leading technology partners that deliver complementary products and services for SteelEye's industry-proven LifeKeeper products. The company works closely with SAP and HP to ensure seamless interoperability and rapid certification of LifeKeeper for Linux clusters on HP ProLiant servers.

www.steeleye.com

CC Computersysteme und Kommunikationstechnik GmbH

Based in East Germany, CC Computersysteme und Kommunikationstechnik GmbH specializes in SAP solution-based projects, covering the entire solution life cycle from design to implementation and support. It is also a business partner and value-added distributor of SteelEye in Central and East Europe.

www.cc-dresden.de

Find out more about the alliance between HP and SAP,
visit www.hp.com/go/sap.

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