

CASE STUDY

PLUS FINANZSERVICE CHOOSES RED HAT ENTERPRISE LINUX

PLUS
Finanzservice

RESULTS IN BETTER SERVICE FOR IKEA, HORNBACH AND H&M CUSTOMERS

PLUS Finanzservice GmbH in Wiesbaden, Germany is a subsidiary of Scandinavian giants IKEA and IKANO that specialise in customised concepts in consumer loans and credit cards for retailers and mailorder businesses. In Germany alone, more than 10 partners including IKEA and Hornbach, rely on PLUS Finanzservice. When you include their European sister companies, more than 40 retailers use their services.



Some of Plus' customers

CRITICAL SYSTEMS HAVE HIGH REQUIREMENTS

The IT core of PLUS Finanzservice is the Card Management System that displays all business processes. For example, the private and business customer advisers at any IKEA outlet can access the application directly via a Web front-end, while other partners, such as Hornbach, have access via the PLUS staff. Without the Card Management System nothing moves at PLUS or its partners.

Given the critical nature of this system, it's no wonder that Gerrit-Leonhard Stein, IT Manager at PLUS, was looking for the most efficient and reliable solution when his previous software and hardware contract with Sun expired. The new system would have to offer both high scalability and a substantial cost reduction. Ultimately PLUS decided to switch from Sun Solaris to Red Hat Enterprise Linux AS on Dell hardware. They installed a completely new total cluster solution in August 2004.

RED HAT, DELL, AND ORACLE EXCEED EXPECTATIONS

Four Dell 2-processor systems work with Red Hat Enterprise Linux AS, accessing a Storage Area Network (SAN) from EMC. Oracle9i Real Application Clusters (9i RAC) handles the clustering. Red Hat and Dell worked closely together to develop the 9i RAC solution. Under heavy loads the complete system performs

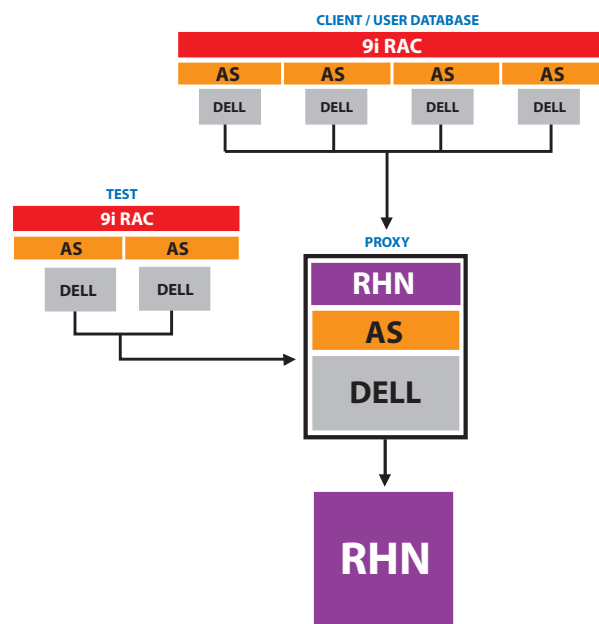
extremely well and has achieved performance records. It demonstrated capability in the test phase at PLUS, when compared with new Sun hardware.

The new cluster system is highly fail-safe. The production environment is mirrored at an external computer centre on the same architecture and synchronized online with the production system. The cluster software handles the failover automatically in the production system. The switch to the mirror system would be made manually if ever necessary.

In addition to the clusters used for critical card applications, PLUS deploys Red Hat Enterprise Linux on two test machines. There is also a back-up server based on Red Hat Enterprise Linux that controls the tape library.

Red Hat Enterprise Linux even works in a virtual infrastructure. A production database for communication with a partner works productively in a virtual machine on Red Hat Enterprise Linux. PLUS uses a virtual infrastructure based on the VMware ESX Server for server consolidation. At present about 27 virtual machines are running on eight physical servers.

Diagram of the PLUS solution



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CONTINUED VALUE THROUGH RHN

One element of this Linux deployment is the Red Hat Network (RHN) Proxy Server. The Proxy Server connects PLUS to RHN delivering updates, patches, and errata to customers. With the RHN Proxy Server, PLUS can centrally update and maintain its entire Linux infrastructure. This simplifies administration and ensures that the system is always up-to-date and secure. Access to Red Hat Network is included with all Red Hat Enterprise Linux subscriptions. Updates are pushed through RHN as they become available, so PLUS can take immediate advantage of new technologies without waiting for a major release to be able to use them.

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WHY MIGRATE?

PLUS Finanzservice was pursuing a number of objectives with their Linux migration. The immediate cause was that contract renewal with Sun was imminent. In view of the high ongoing expenses for a Solaris infrastructure Stein needed to research cost-effective alternatives, particularly because he wished to build a mirrored cluster to replace the old back-up solution. “We didn't just want to replace the old systems, we wanted to build a completely new infrastructure with high performance and scalability. Our goal was to implement an already highly reliable system with an additional disaster recovery option we needed to create an external standby computer centre as a back-up. Production and back-up systems had to have a unified but flexible architecture.”

WHY LINUX?

Stein wanted both cost reduction and independence from manufacturers. They did, not wanting to be tied to a single hardware supplier, and favored Intel-compatible machines. In addition to Linux, Stein also considered Microsoft in the operating layer. However, he felt that a Microsoft environment represented too high a security risk for such a centralized system that could invite hacker attacks.

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WHY RED HAT ENTERPRISE LINUX?

First of all, PLUS already had positive experiences in other fields with Red Hat; a server that ran so reliably and problem-free that its existence had almost been forgotten. Secondly, Dell recommended the widest possible use of Red Hat software, including certification already obtained by Red Hat for use in a SAN.

Tests showed that a Linux system would offer improved performance at a significantly lower cost than a comparable system on an updated Sun platform. In all, PLUS Finanzservice was able to reduce costs by nearly 30% over three years for a much more efficient IT infrastructure. Stein put forward another argument for switching from Solaris to Linux: "It is easier to find good administrators for Linux than for Solaris."

The Red Hat Professional Services team was responsible for installing the production environment. They also installed the operating system platform, installed Oracle RAC, and handled the system tuning. The test system was complete within three weeks. Once testing was complete, Stein's team and Red Hat only needed four weeks to optimize the entire system.

The system has been in operation since August 2004 and has more than fulfilled expectations: "During installation and the first phase of the production system, the support from Red Hat was everything that could be hoped for in collaboration with a technology supplier: fast, extremely competent, and uncomplicated," explains Stein. "We now have a system that is not only very reliable and inexpensive but also offers the high scalability that we need to continue growing. The switch to Red Hat Enterprise Linux on Intel-compatible hardware was a major turning point for us and I am happy that we were able to complete the project with great success. Now we can start thinking about how we are going to expand our use of Red Hat products and services in our business."

In conclusion Stein said, "Because the new systems have a high level of availability, we can give our customers better service. That is the only difference they would have noticed. You can't pay a new system a greater compliment than that."

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INSTALLATION

- Two Clusters: Oracle9i RAC each on four Dell PowerEdge 2650's with Red Hat Enterprise Linux AS v.3
- Integration into EMC Storage Area Network
- Red Hat Network Proxy Server for central system management and automatic updates
- Production database on Red Hat Enterprise Linux in virtual machine

PRINCIPAL RESULTS

- 30% reduction in total operating expenses
- High platform availability for critical business applications
- Not dependent on a single-source manufacturer
- High scalability
- Greater availability allows better service