

Sungard's Front Arena goes Linux in Germany

The banking industry is known for being conservative when it comes to planning IT investments and considering new technology. And German banks are no exception. That's why it may surprise many that BayernLB (formerly known as Bayerische Landesbank), the seventh largest bank in Germany, has moved its SunGard Front Arena applications supporting its trading operations to the Linux platform.

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Werner Burger, Team Leader, Trading Systems,
BayernLB



"It was a natural decision for us after our extensive tests," says Werner Burger, CTO at BayernLB. "We now have more computing power with greater reliability, running faster – but it's costing us 30% less."

As one of the largest banks in Germany, BayernLB has offices in all the major financial centres of the world, reflecting its extensive trading operations. The bank is Front Arena's largest customer, with over 450 users.

"Linux is well-known for managing its communication very efficiently," says Nils Undén, SunGard Front Arena's CTO. "It can be about 10 times faster than Windows and this affects the cost/performance ratio very favorably. Thus the Linux porting was a very suitable solution for BayernLB."

There are other economic implications of using Linux, according to Undén. "Scalability, load balancing and maintaining a disaster recovery site become much more economical and practical."

According to Burger, the take-off point for BayernLB wasn't the total cost of ownership, but

the need for more computing power. "We got to the point where we weren't able to run a cluster, running the complete application on one node. It just took too many resources. And in the event of a node failure, we couldn't support complete trading room functions with a single node."

Based on its processing needs, the bank made a decision to move from a 20-processor Sun Enterprise 15 system to new HP hardware with AMD Opteron processors. From there, it was natural to also consider Linux as the operating system. "It was a big step for us," says Burger, "but we were already working with IZB, BayernLB's provider for system infrastructure, and they had LINUX experience. When we saw the results of their performance tests, we realized this was the only possible solution."

The porting itself only took a few months, but system changes often present many challenges for even experienced users. In this case there were none, according to Burger. "We had a short Linux training to inform everyone about the changes, but anyone familiar with Solaris and Unix operations is also familiar with Linux, so there was no problem."



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IZB provided installation and tailoring for the infrastructure (network, servers and database) while Front Arena provided the applications and application support. The operational results were impressive: increased fault-tolerance, reliability and performance at decreased cost. If one component fails, it doesn't affect the whole application. It can still run on one node.

"But the real gain was in system re-starts," claims Burger. "We were experiencing very long restart times, about one hour, based on the amount of trades in the database and amount of data to reload from cache. Now we're able to restart in 10-15 minutes."

There were other performance advantages to Linux. The synchronization of Front Arena data servers was running at 5000 updates per second. Now they are able to run 50,000 updates per second.

"Generating SQL-based reports on the server side are running up to 3-4 times faster now," adds Burger. "We have been up and running for more than half a year now and haven't had any problems with it, so we're convinced and we're looking forward to even more performance enhancements."

Independence Through Portability

Front Arena has evolved from components that trace their history back 13 years – so adaptation to changing platform preferences in the market has always been a paramount question. Our strategy has always been to allow customers to make use of the current best-of-breed platforms.

The financial industry has shifted from VMS to Sun to Windows and is now heading toward Linux. Our server applications are supported on Windows, Solaris and Linux. There is always an upgrade path provided for platform shifts, with about a three-year window.

In order to maintain an agile stance and "platform agnosticism", the Front Arena business logic and core components have been designed for portability. Moreover, dependence on proprietary database features is kept to a minimum; database access goes through a vendor-independent layer.

"Platform" refers to the hardware, operating system and database management system upon which Front Arena is installed.