CASE STUDY

Intel® Xeon® Processor E7-4800
Intel® Xeon® Processor 5600 Series

Financial Services
Performance for Data-Intensive Computing

Trading up to better performance

The Vontobel Group migrates to x86 architecture for more scalable core banking system

Since it was founded in Zurich in 1924, the Vontobel Group has expanded to offer exclusive private banking, investment banking and asset management services to customers around the world. Its 1,400-strong workers pride themselves on maintaining customer relationships built on performance and trust and guided by core principles of solidity, stability and reliability that pervade every aspect of its business. To boost the performance of the core banking platform upon which all its customer and business interactions are based, the bank migrated from a RISC platform to x86, powered by the Intel® Xeon® processor E7-4800 and Intel Xeon processor 5600 series. This has boosted application performance by a factor of three while reducing costs and enhancing manageability.

VONTOBEL

Leistung schafft Vertrauen

"Until recently, there was a mind-set in the financial services market segment that you just couldn't run performance-hungry, high-throughput core banking applications on x86 architectures. We have become the first in Switzerland to run such applications on an Intel® technology-based infrastructure and have proven that it works perfectly. I'm sure it won't be long before other banks are taking this approach too."

Damir Delas
Director, Enterprise Platforms
The Vontobel Group

CHALLENGES

- **Maintain reputation.** Demonstrate continued excellence in all areas to keep both business success and customer satisfaction high
- **Boost core banking application.** Ensure overnight batch job processing and response to end-user queries always is fast and reliable
- **Move away from RISC.** Implement x86 platform to reduce maintenance costs and boost system performance

SOLUTIONS

- **Shift to x86.** New virtualized platform powered by Intel Xeon processor E7-4800 and Intel Xeon processor 5600 series
- **Demonstrable impact.** Performance is up to three times better on the Intel-powered platform, at 25 to 40 percent the cost of upgrading to an equivalent-performance RISC platform[1]

IMPACT

- **Completely reliable.** Uptime in the first six months was 100 percent
- **Streamlined fleet.** Physical fleet is now more compact and easier to manage and reduces power consumption by a factor of two
- **Setting an example.** First financial organization in Switzerland to benefit from Intel technology-powered platform for core banking operations

A Standard of Excellence

The Vontobel Group serves a distinguished customer base, which expects nothing but excellence when it comes to managing and protecting high-value investments and portfolios. The bank has built a solid reputation for consistently delivering on these high expectations – a reputation it works hard to maintain. This requires constant reviews of business processes and resources – from customer service practices to IT equipment – to ensure everything is producing the best possible results for Vontobel and its customers.

One of the tools that must always be in top shape is the core banking platform, Avaloq*. With as many as 900 concurrent users accessing Avaloq to perform checks and updates to a wide range of customer and portfolio details, slow response times or inability to access information can have a significant impact on the whole company's day-to-day performance. There's no time for the system to rest at night either, since the day's transactions across 50,000 customer portfolios need to be processed to ensure any insights and updates can be taken into account in the next day's trading.

The bank knew it was time to upgrade the IT infrastructure on which Avaloq was based when the overnight processing batch jobs were still running the next morning, taking performance away from the business users trying to access the system. Besides slowing down employees' daily activities, this also meant users often did not have the most recent data to help them make important decisions about what funds to invest where.

Investment banking specialist boosts performance of core banking platform with Intel® Xeon® processor E7-4800

Spotlight on the Vontobel Group

The Vontobel Group combines the expertise of an independent Swiss private bank with the innovative strength of an active international asset manager. Its integrated business model comprises three business units – Private Banking, Investment Banking and Asset Management – and employs around 1,400 people worldwide. The Vontobel Group was first established in Zurich in 1924.

Replacing RISC

The slow-down stemmed from the fact that Vontobel's IT architecture was aging and unwieldy to manage. The RISC platform relied on constant maintenance, which was both time-consuming and costly but, even so, was not able to deliver the performance required to keep Avaloq running optimally.

"We needed a computing platform that could deliver reliable, highly available and scalable performance even during periods of heavy use," explains Damir Delas, director of enterprise platforms for Vontobel. "My experience of working with Intel before had assured me that an x86 platform powered by Intel technology would be the right choice due to its unsurpassed technology performance and detailed, quickly-evolving roadmap. However, we still needed to ensure such a solution would complement our Avaloq environment, so we carried out a proof of concept (PoC)."

Demonstrating the Difference

The Vontobel team deployed one Oracle Sun Fire* X4470 M2 server, powered by the Intel Xeon processor E7-4800, for its PoC. The Avaloq core banking application was run on this server while Delas assessed various aspects of the Intel technology-based solution to compare with the old RISC platform:

- **Performance:** When running on the Intel-powered platform, Avaloq both responded to end-user queries and ran batch processing jobs between two and three times faster than when running in the RISC environment. With batch processing now much faster, more data could be processed every night, meaning the bank could increase its business volume with seamless scalability.
- **Cost efficiency:** The cost of the Intel-powered Oracle server is about 30 to 50 percent of the cost of a RISC server with equivalent performance. In a typical installation like Vontobel's, which can incorporate dozens of servers, this level of CAPEX saving, paired with the reduced maintenance costs of the x86 platform, meant this option was identified as a smart investment.
- **Flexibility:** The bank's IT staff was used to installing the Sun Solaris* x86 operating system on Oracle Sun Fire x86 servers. Practically the same hardware platform now supports banking as well as standard collaborative applications, running in Solaris*, Microsoft Windows* and Linux* operating system environments.

Armed with these results, the bank was then confident in going ahead with a full migration. It replaced its RISC platform with 16 Oracle Sun Fire X4470 M2 and X4270 M2 servers powered by the Intel Xeon processor E7-4800 and Intel Xeon processor 5600 series, respectively. This fleet supports around 90 virtual servers.

Better All Around

"The reliability of the new solution can't be faulted," says Delas. "After nearly six months in production, the new environment has reported 100 percent availability, and we've not had a single incident."

Maintenance of the platform has also become much simpler. The day-to-day upkeep the previous environment needed has been eliminated in many areas, while the fleet itself takes up much less physical space than before.

"We used to have to manage about six to 10 rack units per server, whereas that number is now just two to three," Delas explains. "With less hardware on site, we've seen power consumption in our data center drop significantly, and that brings with it a significant cost saving too. And all the while our 'must-haves' of performance and scalability have improved significantly – that's a very good outcome for us."

Starting a New Trend

The bank is already thinking about what it can do next to keep driving improvements in the way it does business and serves its customers. It plans to continue deploying servers based on the latest generation Intel® processors as they become available.

Delas concludes: "Until recently, there was a mindset in the financial services market segment that you just couldn't run really performance-hungry, highly-threaded core banking applications on x86 architectures. We disagreed, and so have become the first in Switzerland to run such applications on an Intel technology-based infrastructure. Moreover, we've proven that it works perfectly and is more than capable of delivering a robust, scalable platform while bringing marked performance, cost and management improvements. I'm sure it won't be long before other banks are taking this approach too."

Find the solution that's right for your organization. Contact your Intel representative, visit Intel's Business Success Stories for IT Managers (**www.intel.co.uk/Itcasestudies**) or explore the Intel.com IT Center (**www.intel.com/itcenter**).

[1] Software and workloads used in performance tests may have been optimized for performance only on Intel microprocessors. Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations, and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products.

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