Hewlett Packard Enterprise

Regional European financial institution transforms core banking with Superdome X

Gains performance and flexibility, with higher availability and lower costs

Objective
Reduce the cost of running mission-critical core banking services while improving application performance and enabling greater flexibility to grow the business

Approach
Transform to a hybrid infrastructure by migrating from IBM Power Systems to HPE Integrity Superdome X Servers and HPE 3PAR StoreServ 7400 Storage running a virtualized Linux open source operating environment

IT Matters
• Improves application performance by 250%

• Achieves 30% improvement in operating efficiency

• Accelerates provisioning of new IT environments, now in hours rather than days

Business Matters
• Reduces capital expenses by 38%

• Lowers operating expenses by 78% over four years

• Ensures the highest levels of reliability and availability for mission-critical core banking

Modernizing the core banking infrastructure

Hypo Group Alpe Adria AG (HGAA) runs a network of six banks across southeastern Europe, including Slovenia, Croatia, Bosnia-Herzegovina, Serbia, and Montenegro. With approximately 250 branches and €8 billion in total assets, HGAA today serves more than 1.2 million customers.

For years, HGAA ran an in-house IT service organization, Zajednicki Informacioni Sistem (ZIS), which was responsible for running core banking services and associated business applications. However, the cost of retaining ZIS was becoming too great, so HGAA decided to sell off ZIS and outsource its core banking operations.

Amid many contenders, HPE stepped up with a winning bid and absorbed ZIS into a banking center of excellence based in Belgrade, Serbia. With the acquisition, HPE inherited an IBM Power Systems infrastructure running Temenos Core Banking software in an IBM AIX operating environment. However, IBM Power Systems proved to be a very expensive platform to maintain, and it did not deliver sufficient performance to meet HGAA's growing workload demands.

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"To run a mission-critical environment like core banking, you need enterprise-class technology that delivers the highest levels of performance and classic RAS—reliability, availability, and serviceability. We saw all of this in Superdome X. It has the robust capabilities we were used to in a UNIX environment but implemented on an open platform."

— Holger Salzer, Account Delivery Executive with HPE and former CEO of ZIS

To lower both operational and capital expenses, as well as improve performance and agility, HPE replaced the IBM environment, including IBM Power 570 and Power 780 servers, with HPE Superdome X and Linux. The choice was critical because the new platform had to ensure the same or better reliability and availability as IBM Power Systems and AIX

With the robust capabilities of Superdome X, HPE now delivers banking-as-a-service to four of the six HGAA banking subsidiaries, including Serbia, Montenegro, and Bosnia-Herzegovina, which comprises two legal entities. HPE provides a complete one-stop-shop for implementation, operation, and maintenance of Temenos Core Banking, enabling HGAA to achieve a whole new level of performance, efficiency, and economy.

Superdome X delivers on mission-critical requirements

HGAA turned to HPE because the bank needed a partner with deep industry knowledge and commitment to meeting the critical needs of a financial services organization. With decades of financial services industry experience and broad expertise as an IT service provider, HPE was uniquely positioned to provide an objective and substantiated recommendation for the infrastructure to run HGAA's core banking services.

Fundamentally, HPE recognized that HGAA needed a platform that could support multiple banks today, as well as scale to handle additional acquisitions without consuming valuable data center space. The platform also needed to be open and flexible to support new and different banking applications in the future without overhauling the infrastructure. Above all, it had to provide rock-solid reliability and availability.

Weighing several options, including traditional rack servers, HPE recommended the industry standards-based Superdome X. HPE also complemented the Superdome X with HPE 3PAR StoreServ 7400 storage, offering six-nines availably and mission-critical data services.

Holger Salzer, HPE business consultant for the financial services industry and former CEO of ZIS, explains, "To run a mission-critical environment like core banking, you need enterprise-class technology that delivers the highest levels of performance and classic RAS—reliability, availability, and serviceability. We saw all of this in Superdome X. It has the robust capabilities we were used to in a UNIX environment but implemented on an open platform. Superdome X with Linux was the ideal replacement for IBM Power Systems and AIX."

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To validate its recommendation, HPE set up a proof of concept (POC) with Superdome X running the Temenos Core Banking application and DB2 database in a Red Hat® Enterprise Linux environment, virtualized with Red Hat Enterprise Virtualization. The POC also included HPE 3PAR StoreServ 7400 Storage configured with solid state drives to maximize performance.

One of the most important processes tested during the POC was Close of Business (COB). This is a batch process consisting of numerous jobs needed to reconcile the day's activities, including posting transactions, calculating interest rates, and processing accruals. Daily COB processes on Superdome X with 3PAR proved to complete 30% faster than IBM Power Systems. Moreover, the monthly COB, which generates the heaviest workload, completed 40% faster than Power.

Even more impressive, the business case showed that deploying a completely new HPE Superdome X and 3PAR solution would save HGAA more than €510,000 compared to upgrading the legacy IBM Power Systems to IBM Power E880 servers. And ongoing maintenance would be lower by nearly €973,000 over four years going with HPE Superdome X compared to Power E880.

Transformed to a hybrid infrastructure

Following the successful POC, HPE deployed two Superdome X servers into production to deliver Temenos Core Banking as a service for HGAA employees. As in the POC, the Superdome X servers operate in a virtualized Linux environment.

The complete solution also includes 3PAR storage with Adaptive Optimization enabled to optimize utilization of the disk drives. The presentation layer of Temenos Core Banking is delivered to end users with VMware desktop virtualization running on an HPE BladeSystem c7000 system.

Superdome X is configured with four electrically isolated hard partitions called nPars. Two of the nPars run production Temenos Core Banking services and the DB2 database for the four banks, while the other two nPars are used to keep test and development systems separate from production.

To ensure high availability of mission-critical core banking, the pair of production nPars provides the necessary redundancy. In addition, the Temenos Core Banking application and DB2 database are replicated between the two Superdome X servers using native clustering features within each product.

Salzer notes, "In the past, we had logical isolation on the Power Systems, but nPars provide the added advantage of high availability within the platform, which we didn't have before."

HPE also deployed a second 3PAR system at a remote site for rapid data recovery in the event of a disaster at the production facility.

Higher performance, lower cost, greater efficiency

With Superdome X and 3PAR now running in production, HGAA is realizing the performance, efficiency, and cost benefits demonstrated in the POC. For example, overall performance on the HPE solution is 2.5 times better than the previous IBM Power Systems.

Customer at a glance

Application
- Temenos Core Banking software with IBM DB2 database running in a virtualized Red Hat Enterprise Linux operating environment

Hardware
- HPE Integrity Superdome X Servers
- HPE 3PAR StoreServ 7400 Storage
- HPE BladeSystem c7000

Software
- Red Hat Enterprise Linux 6.7
- Red Hat Enterprise Virtualization 7.2
- Temenos Core Banking
- IBM DB2

Services
- HPE Integration and Implementation Services
- HPE Managed Services
- HPE Managed Business Intelligence Services
- HPE Server Management Services
- HPE Application Management Services
- HPE Technology Support Services – Server Support

HGAA also gained efficient scalability to take on growing workloads and handle new acquisitions as opportunities emerge.

Sasa Ristic, IT Infrastructure Manager at HPE, remarks, "Superdome X brings a whole new level of scalability that will allow us to grow the environment. Right now we are using only a fraction of the platform's full capabilities, which provides plenty of headroom for HGAA to expand its operations without compromising performance."

One of HGAA's most important objectives was to lower costs. HPE delivered outstanding results, reducing immediate capital expenses by 38%. In addition, the team expects operating expenses to be reduced by 78% over four years. In total, HPE lowered HGAA's expenses by 39%, taking into account the cost to deploy the HPE infrastructure, migrate applications and data, and train administrative staff on the new systems.

By standardizing on HPE technology and implementing open source tools to automate and optimize workloads, HGAA also achieved a 30% improvement in operating efficiency. That helps keep costs lower, and also

enables HPE to respond faster to requests from the banks. In fact, HPE can now deliver new application, test, or development environments in a matter of hours instead of days like it took with IBM Power Systems.

Ristic concludes, "Superdome X enables HPE to perform our day to day responsibilities for HGAA much faster and help it get results from the core banking system that were not possible before. The best thing is we provide the application as a service, so for HGAA everything is transparent. End users get highly reliable, highly responsive access to core banking and the bank doesn't have to worry about managing the back end. That allows HGAA to focus on running the business and delivering the best possible services to its customers."

Learn more at
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