

Parallels® Virtuozzo Containers

Success Story: Husbanken

Norwegian Bank Switches from ESX Server to Parallels Virtuozzo Containers

Critical Banking Applications Required the Level of Performance
that Parallels Virtuozzo Containers Delivers

Business Challenge

Husbanken found that they could not effectively scale and maintain the required performance levels with the addition of application workloads despite their recent heavy investment in VMware's ESX Server. Having just switched the bank's core applications to VMware, Husbanken faced migrating its I/O heavy applications to another virtualization platform.

"The provider of our previous virtualization solution promised that we could achieve important savings due to physical server consolidation with their [VMware] offering. But in our view, the reason for virtualizing is not one particular element—we wanted the overall benefits that come with a virtual infrastructure. We had a strong interest in achieving high performance with operational efficiency, VMware did not deliver."

— Håkon Stende, Senior Advisor, Husbanken.

Husbanken's core system is built on a Software AG Natural/Adabas platform. One part of the system handles the bulk of the banking needs to administer loan transaction processing. The system is used by approximately 120 internal users and 20,000 external users that administer their account using a JBoss application. Overall, the banking piece of the system has 160,000 active accounts. The second part of Husbanken's system focuses on payment processing and generates checks for approximately 100,000 people. Of those receiving payments from Husbanken, 2,000 of the users access the system on a JBoss-server.

Evaluation

"We were forced to look for a different solution when a set of applications that was running on a Software AG Natural/Adabas environment had to be moved to a JBoss and Sybase environment," explained Stende. When the IT staff moved their application stack to Husbanken's new VMware ESX Server, the performance was unacceptable. Husbanken was forced to port each application to a standalone server until a virtual platform with better performance could be found. Stende again undertook a search for a new virtualization platform that would actually deliver on its promise of performance and security.

Stende knew he had found a solution when he came across an article on Parallels's OpenVZ virtualization project and Parallels Virtuozzo Containers' operating system server virtualization product designed for enterprise businesses. He immediately downloaded a trial version of Parallels Virtuozzo Containers and was pleased to see that a range of configuration tools, including the ability to import complete images of virtual system instances, was bundled into the toolset.

"We were very impressed by the technology behind OpenVZ, but we soon discovered that the commercial version [Parallels Virtuozzo Containers] included significantly more management tools and professional support. We liked that Parallels Virtuozzo Containers comes with both command line and a GUI management console and the ability to create a new virtual environment using point-and-click. But, the ability to create application templates and add them to the virtual environments and centralized patching of the operating system was the real selling point," concluded Håkon Stende.



Fast facts

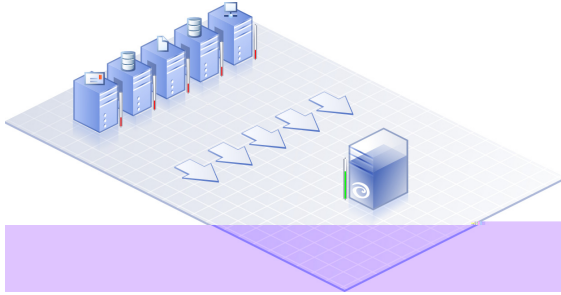
- **Company:** Husbanken, The Norwegian State Housing Bank
- **Industry:** Banking and Finance
- **Offerings:** Housing Loan Programs
- **Location:** Drammen, Norway
- **Organization Type:** Government
- **Website:** www.husbanken.no

"Business critical applications ran four times faster on Parallels Virtuozzo Containers than on ESX Server."

— Håkon Stende, Senior Advisor,
Husbanken

Parallels Virtuozzo Containers Solution and Implementation

Husbanken's current environment includes 3 IBM Blade servers HS20 with two CPUs 8 Gb RAM and 1 IBM DS4300 SAN with vz-partition for each hardware node and one Dell 2950 server with an external RAID.



Husbanken runs the virtual servers on SAN-partitions that can be mounted on another hardware node should a failure occur. Husbanken runs from 5 to 20 virtual environments per hardware node. Additionally, Husbanken uses Parallels Virtuozzo Containers as part of its disaster recovery solution. Husbanken syncs their critical systems on a daily basis to a hardware node located at a remote site.

About Husbanken

Husbanken is the Norwegian name for the Norwegian State Housing Bank which is the branch of the government that oversees loans, grants, and housing allowances for Norway. The Norwegian State Housing Bank normally finances 60-70% of the cost of a home and the vast majority of Norwegians obtain their primary financing through Husbanken.

Results

"All project participants were surprised by our first tests," IT manager Stende explained. "Business critical applications were running four times faster under Parallels Virtuozzo Containers than ESX Server". Not only did Husbanken's banking applications perform better on Parallels Virtuozzo Containers than ESX, but the JBoss and Java applications actually gained speed. Husbanken's IT staff was very pleased with the performance of their production servers running Parallels Virtuozzo Containers. With such workload demands due to the sheer number of users and the resources needed to effectively run banking applications, Parallels Virtuozzo Containers performed even better than anticipated. Additionally, Stende's team praised Parallels Virtuozzo Containers for its ease of implementation and quick ramp-up time.

"We were highly impressed with Parallels's flexibility seen in both the product and the company's support of our needs", concluded Håkon Stende.

Future Plans

"We currently do not have any defined plans, but we know that we will shortly face challenges in the area of Windows consolidation. We view Parallels as our partner of choice and will first look to Parallels Virtuozzo Containers to handle our OS consolidation needs. We have gotten great results with Parallels Virtuozzo Containers and are confident that the benefits will continue," summarized Håkon Stende, Senior Advisor, Husbanken.

Learn more at www.parallels.com/virtuozzo

Hardware used

- 3 x IBM Blade servers HS20, 2 CPUs 8 Gb RAM
- 1 x IBM DS4300 SAN
- 1 x DELL 2950 with external RAID

Software

- Banking applications

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VZ Solutions

- Server and OS Consolidation
- Business Continuity



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