

Parallels® Virtuozzo Containers

Customer Success Story

Municipal IT – efficient and scalable

Gemeente Binnenmaas chooses Parallels Virtuozzo Containers

Modernizing the IT infrastructure

Our story begins in 2005. The new head of the municipal IT administration in Binnenmaas (located near Rotterdam in the south of the Netherlands) was to modernize the IT infrastructure which partially still dated back to the 80s. He only needed to talk to the administration department's users to hear consistent complaints about problems logging into the system and performance issues. It soon became clear that simply replacing the desktops with newer equipment and installing Ethernet cabling would not be sufficient. It was necessary to start from scratch, to standardize on Windows Server 2003 for all applications and servers and to perform a migration to Microsoft Active Directory and Citrix Presentation Server. This resulted in improved stability and availability and was considered a success.

Based on this positive experience, it was decided in early 2007 to modernize the IT infrastructure in the five neighboring municipalities of the region along the same lines. The plan was to finish the implementation of a common IT infrastructure by 2010, i.e. the modernization and stability that had already been achieved was to be augmented with a scalable, performant, highly available, easy to administrate solution and an IT service center was to be built. Especially challenging to George Kobossen, ICT Manager, was the fact that arbitrarily increasing the number of physical servers at various sites was not possible, because it would have meant increased administrative needs and more work managing patches which were impossible to tackle using the available personnel. Additionally, the existing datacenters defined hard limits because they lacked extension options to meet increased cooling and electricity demands.

VMware issues

«This can be managed using VMware». This first idea was a mistaken belief, as it was found out quickly: George Kobossen had his partner Henk Lohuis from High Focus BV set up a testbed and performed extensive test runs. The disillusioning results showed many of the more than 90 applications the municipality used not running at all or performing at unacceptable levels on VMware's virtual servers. They were complex and custom-built for the municipal administration (e.g. for the resident registry office), and there was no way the municipality could do without them.

There was astonishment in the municipality. Another VMware expert was consulted, but the results were the same and only was able to find out that the installation had been set up to obtain optimal performance. Obviously, there was a problem with VMware's very virtualization technology. It was January of 2008 and the project seemed to have failed.

Henk Lohuis just had received his first demonstration of Parallels' solution at a fair in Amsterdam. With Parallels Virtuozzo Containers, only a single instance of the operating system needs to be installed on the physical server. Virtuozzo creates individual instances of the operating system («containers») that are isolated from each other and that run the same or different applications, such as Exchange Server or Citrix Presentation Server.



Customer data

Customer: Gemeente Binnenmaas
Residents: 30,000
Business: Municipal administration
Domicile: Maasdam (The Netherlands)
Web site: www.binnenmaas.nl

Project data

Challenge

Modernizing the IT infrastructure and building an IT service center for neighboring municipalities

Parallels' solution

Virtualizing the existing Citrix Presentation Servers as well as various application servers

Parallels' product

Parallels Virtuozzo Containers 4.0

Hardware

5 IBM x3650 servers
Dual quad core CPUs, 10 GB of RAM
Centralized, highly available SAN

Virtualized applications:

12 Citrix Presentation Servers
12 application servers
(Exchange, Oracle, file and e-mail archives)

Results

Reliable and scalable infrastructure with high performance and reliability

Among the strong points in its favor is Virtuozzo's high performance. Unlike VMware, Virtuozzo uses memory very economically, needs less hard disk space and accesses hardware through a single operating system instance. This means that it can do without special drivers, giving the virtual instances nearly native performance overall. George Kobossen was willing to give it a try.

When George Kobossen starts talking about Parallels and Virtuozzo, his voice can be heard getting noticeably more favourable. All old applications ran without modifications or performance losses, «just as fast or even faster». There was not a single complaint from the testing environment's users. After only four months, they went from testing to productive operation: One server running Citrix Presentation Server now satisfies requests for the neighboring municipality of Korendijk and its 60 users.

Future prospects

Regarding Binnenmaas' Virtuozzo implementation, the bare figures and the good prospects for the future are the best conclusion: «The five municipalities in our region have only few administrators and some of them must cope with their duties while working part-time», Kobossen explains. He continues: «Using centralization, as we are now setting it up, with only one platform to manage and support, we will master the administration tasks. We are sure of that.»

After only four months, Virtuozzo had gone into production use in the first municipality, Korendijk. Next will be the migration to Virtuozzo 4 in the municipality of Binnenmaas, where the testing environment with its 20 to 30 users has already entered stress testing and where «we have a good feeling about entering productive use for all members of the staff before the end of the year», as Kobossen says. The municipality of 's-Gravendeel will follow in early 2009. After that, the region's remaining two municipalities will be next, finishing the «IT service center Binnenmaas» project in all likelihood successfully and on time.

Seen from a technical perspective, Mr. Kobossen has thus overcome all obstacles. IT colleagues from other municipalities sometimes give him knowing looks when listening to the VMware parts of his story; they look rather incredulous when he is talking about his solution: Parallels? What is that? And it is that easy?

– Yes, Optimized Computing is that easy.

“Using centralization, as we are now setting it up, with only one platform to manage and support, we will master the administration tasks. We are sure of that.”

– George Kobossen, ICT Manager,
Gemeente Binnenmaas



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