

Parallels® Virtuozzo Containers

Customer Success Story

ProServe delivers Virtualized Dedicated Servers using Parallels Virtuozzo Containers

Virtualization technology delivers better management, easier upgrades, and faster migrations over non-virtualized servers.

Business Challenge

ProServe offers a wide range of services to businesses and individuals, including bandwidth, co-location space, dedicated servers, storage, backup services, consultancy and hardware. As part of their successful growth in the Hosting Provider industry they found themselves in a position where their hardware platforms were approaching their useful life. ProServe needed to move to a platform that was dynamically scalable with dedicated like performance which would not unduly affect their customer base during the migration period.

This was not the first time that ProServe had migrated platforms. During 2004, ProServe completed a migration from Cobalt Sun Microsystems hosting appliance to a more modern architecture involving web servers and the Parallels Plesk Control Panel. This migration was done using manual processes and server scripts and was quite labor intensive.

Although the previous migration worked satisfactorily, it was quite lengthy, complex and required highly trained resources. In addition, the migrations usually occurred at night which made the whole process more costly and inefficient. Thus, ProServe was on a quest of sorts, as they knew what capabilities to look for when selecting a more flexible solution. They required an automated solution that could be initiated during regular business hours without significant downtime for their customers.

ProServe's Platform

The majority of ProServe customers are migrating to virtualized dedicated servers delivered on several configurations of Dell Power Edge 860s and 1950s Rack Servers. Parallels Virtuozzo Containers provides the virtualization technology for ProServe's dedicated server offering. For the end-customer, virtualized dedicated servers deliver services which provide a better alternative to traditional dedicated servers and deliver a number of premium services.

The following details just a portion of the long list of virtualized dedicated server benefits:

- **Resource flexibility** – virtual servers simplify and automate the ability to upgrade a service plan, even on a monthly or weekly basis.
- **Self management/recovery power panel** – allows end-customers to recover from most failures quickly and without contacting the provider.
- **Complete and easy to use full system incremental online backup/restore capabilities** – through the Parallels Virtuozzo Containers power panel.
- **Resource utilization** – with multiple customers on a server, it's unlikely that each customer will use 100% of their allotted resources (such as CPU or I/O cycles). Parallels Virtuozzo Containers allows customers to use more resources than are promised. Service providers can elect to implement a business model where they over-sell resources.



Overview

Location: Netherlands

Type: Hosting Provider, Internet Service Provider

Customer Profile

ProServe, founded in 2000, is one of the top 5 ISPs in the Netherlands offering business and residential customers a wide range of services includes bandwidth, co-location space, dedicated servers, storage, backup services, consultancy and hardware.

Business Situation

ProServe required a powerful, robust platform, with simple installation, configuration, migration and maintenance for deployment of their virtualized dedicated server solution.

Parallels Solution

Parallels Plesk Control Panel and Parallels Virtuozzo Containers based platform provided automation and virtualization technology for ProServe's solution, meeting all their requirements for performance, manageability and reliability.

Parallels Virtuozzo Containers was key to successfully migrating their customer base to new hardware in an expedited manner and without disruption.

- **Higher availability** – near zero-downtime fully automated migration eliminates the need for planned downtime due to OS or hardware maintenance, while more reliable hardware and better disk systems make the unplanned downtime caused by hardware failures much less likely and less harmful. At the same time power panels and complete online backup/restore capabilities makes recovery from soft or self-inflicted failures much faster.
- **Better security** – eliminated risk for internal or external DDoS attacks in data center.

Solution and Implementation

ProServe implemented Parallels Virtuozzo Containers to deliver dedicated servers not only to extend services but also to End-of-Life (EOL) their older Super Micro Computer based platforms, the majority of those configured with Parallels Plesk Control Panel operating on the FreeBSD 4-STABLE 4.11 Operating System software.

At first they tried other virtualization solutions, some at the request of clients, but found that these were either too expensive or did not offer the required feature set. ProServe decided upon Parallels Virtuozzo Containers as enabling a cost-effective and robust platform. When their Clients tried the Parallels Virtuozzo Containers based systems, they were pleased with the ease-of-use and impressed by the management features. Parallels Virtuozzo Containers created a high availability hosting infrastructure, enabling them to take their business to a higher level.

ProServe found it was easy to migrate their numerous platforms to Parallels Virtuozzo Containers. First, they created several server configurations to be used as base platforms. Next, they performed a Physical-to-Virtual (P2V) conversion and placed the results on a temporary platform where clients could test the platform to ensure operation and quality. Once the client approved, they rapidly migrated back to new hardware as a virtualized dedicated server with Parallels Virtuozzo Containers, i.e. Virtual-to-Virtual (V2V) transition.

Proserve configured multiple Parallels Virtuozzo Containers environments to meet different client needs. Some configurations included online backup solutions while others were configured for high-availability. An example configuration that ProServe was especially successful in offering was a Cluster of 5 Servers, all run as VPS with Parallels Virtuozzo Containers technology:

- 2 front end web servers to load balance
- 2 back end SQL servers
- 1 additional server to backup files

This configuration provided high availability and made it easy for customers to upgrade their service.

“The old way of Migration was very problematic. In addition to all the platform benefits, it’s easier to migrate back! If you migrate without Parallels Virtuozzo Containers and the task fails, it’s almost impossible to go back to the previous state”.

— Gerben van der Veen, Director, ProServe

Referenced Hardware

Applications: Various Customer Apps

Platforms: Dell Power Edge 860 and 1950 Rack Servers

Speed: 2.0+ GHz

Memory: 8GB RAM

Software Products: FreeBSD, Parallels Plesk Control Panel and Parallels Virtuozzo Containers

Why Parallels Virtuozzo Containers?

“Parallels Virtuozzo Containers OS virtualization architecture clearly delivered the platform solution we needed, helping us attain a 12X improvement in our migration process”.

— Gerben van der Veen,
Director, ProServe

Results

ProServe's upgrade process involved migrating from Physical servers to virtualized dedicated servers. Before utilizing Parallels Virtuozzo Containers based platforms, the process of migration would normally take them from 5 to 6 hours – with 150 servers this process could take over 900 hours! With Parallels Virtuozzo Containers, ProServe could migrate to a new machine in 30 minutes with negligible downtime.

With near-zero customer downtime, ProServe was able to schedule migrations during regular office hours. As a consequence, the total migration task was much faster, easier, convenient, and could be accomplished during non-overtime hours.

More info on Virtualized Hosting Solutions at <http://www.parallels.com/en/hosting/solutions/>

For More Information

Virtuozzo Containers Documentation

To view the online documentation for Parallels Virtuozzo Containers, visit the Parallels web site:

<http://www.parallels.com/virtuozzo>

Contact Parallels

For more information about Parallels products and services, call Parallels sales at +1 703-995-4102. Outside the United States and Canada, please contact your local Parallels sales office.

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