Case Study

Intel® Xeon® processor 7400 series

Intel® Xeon® processor 5400 series

Hosting Services

High-Performance Hosting

SoftLayer runs Parallels Virtuozzo Containers software on multi-core Intel® Xeon® processors to provide maximum performance, increased energy efficiency, and lower total cost of ownership (TCO)

SoftLayer provides global, on-demand data center and hosting services to a wide variety of organizations from facilities across the U.S. The company's innovative systems allow customers complete control of their data center environments. Automation and an easy-to-use portal enable SoftLayer customers to quickly build virtualized environments and add capacity or back-end services as needed.

SOFTLAYƎR™

The company has grown from one server in 2006 to more than 19,000 servers today by continually seeking new technologies to benefit its customers. For example, SoftLayer recently expanded its offerings to include Parallels Virtuozzo* Containers virtualization software. "Many of our customers are hosting providers who purchase a dedicated server from us and divide it into virtual private servers for their customers," explains George Karidis, chief strategy officer at SoftLayer. "Hosting companies use Parallels Virtuozzo Containers because it enables them to increase density, leading to higher revenue per server, and allows easier mass management."

"Intel® Xeon® processors running Parallels Virtuozzo Containers is a great combination for us and our customers."

George Karidis,
Chief Strategy Officer,
SoftLayer

Unlike virtualization solutions in which every container has its own operating system, virtualization offered by Parallels has only one installation of the OS, resulting in less overhead and a lighter solution that allows more of the server processor performance to come through. The SoftLayer team decided to launch a dedicated server package with Parallels Virtuozzo Containers and looked for a server processor that would maximize the horsepower available to customers.

After evaluating several options, the team standardized on dual-socket and quad-socket servers running the Intel® Xeon® processor 5400 and 7400 series. "With up to twenty-four cores per server, the Intel Xeon processor series provides the robust performance needed for high-density hosting environments," says Karidis.

Measures of Success

- SoftLayer customers require a virtualization software solution that will enable them to place more virtual servers on a dedicated physical server without negatively impacting application performance
- The SoftLayer team must deliver the new software on more powerful servers that can run a high number of virtual machines
- The team also needs a processor that will minimize energy consumption and support customers' "green" initiatives

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SoftLayer has found that moving to servers with two quad-core Intel Xeon processors allows doubling the number of virtual machines per physical server.

Intel Xeon processors enable a successful product launch

SoftLayer credits the multi-core Intel Xeon processors with contributing to the success of its new dedicated server and Parallels Virtuozzo Containers offering. "To ensure we meet customer needs, we track the server processor technologies our customers purchase from us," says Karidis. "A large majority of our customers prefer Intel, and we saw that majority increase by more than 10 percent with the launch of our new offering. The increase took place in just a six-week period, which is impressive. Intel Xeon processors running Parallels Virtuozzo is a great combination for us and our customers."

High performance, low virtualization overhead

With Parallels Virtuozzo Containers allowing more of the Intel processor performance to come through, SoftLayer is able to add new features to the offering without worrying about slowing customer application performance. "Initially, we offered Parallels Virtuozzo Containers together with the Parallels Plesk* management software to provide customer self-service through Web-based control panels," says Karidis. "Based on the success of the offering, we are adding the Plesk Billing 6 platform, which enables hosting companies to track customer usage and automate billing."

Energy efficiency increased by approximately 30 percent

The SoftLayer team is seeing a 30 percent reduction in energy use compared to older processor generations on a per server basis, even as the new Intel technology–based servers deliver increased processing power. "Many of our customers want their server choice to be as energy efficient as possible," says Karidis. "For example, a customer based in Australia is sponsoring rain forest restoration in the Solomon Islands and wants the power consumption rating for its infrastructure to reflect that environmental commitment. The energy-efficient Intel processors also help lower our TCO by reducing our data center energy use."

Return on Investment

- The SoftLayer team credits the combination of Parallels Virtuozzo Containers and the multi-core Intel® Xeon® processors with delivering a successful launch of its new offering

- Parallels Virtuozzo Containers software minimizes virtualization overhead, making more Intel processor performance available to customer applications

- With ample processing horsepower available, SoftLayer is able to add Parallels Plesk Billing 6 functionality to the new offering without sacrificing performance

- SoftLayer's sales of Intel processor–based systems increase by over 10 percent with introduction of the dedicated server offering with Parallels Virtuozzo Containers

- Intel Xeon processors help reduce energy requirements by 30 percent to support customer environmental goals and help lower TCO for SoftLayer

For more information about Intel® Virtualization Technology, contact your Intel representative or visit intel.com/go/virtualization.

For more information on Parallels, send e-mail to sales@parallels.com or call +1 (703) 815-5670 to get in touch with a Parallels representative.