

VKernel Case Study: PEER 1 Hosting



Industry

Managed Hosting and
Colocation Service Provider

Challenge

Maximizing the utilization of space and virtualized resources in its 17 data centers to minimize costs and accommodate growth

Solution

VKernel vOperations Suite

Results

- Gained full visibility into cost allocations and ROI using Chargeback
- Now able to assess total capacity in the entire virtual infrastructure across all data centers
- Eliminated the time-consuming manual management procedures needed previously
- Continuously optimizes resource allocations to maximize utilization, thereby avoiding unnecessary capital expenditures

“By giving us a detailed overview of our entire virtualized infrastructure, the VKernel system has enabled us to allocate resources and map costs more accurately than ever before.”

– Jason Brewer, *IT Infrastructure Manager*, PEER 1 Hosting

PEER 1 Hosting

PEER 1 Hosting (TSX: PIX www.peer1.com) is one of the world’s leading IT hosting providers. The company is built on two principles: Ping and People. Ping represents the commitment to best-in-breed technology, founded on a high performance 10Gb network connecting 17 state-of-the-art datacenters, 21 points-of-presence and 10 colocation facilities throughout North America and Europe. People represents the company’s commitment to delivering outstanding service to its more than 10,000 customers worldwide, backed by a 100 percent uptime guarantee and 24x7 support. PEER 1 Hosting’s portfolio includes Managed Hosting, Dedicated Servers, Colocation and Cloud Services. Founded in 1999, the company is headquartered in Vancouver, Canada, with European operations headquartered in Southampton, UK.

Accommodating Growth with Comprehensive VM Management

As a hosting service provider, PEER 1 Hosting operates a large and demanding environment with over 20,000 servers deployed at 17 data centers. To consolidate space and make more room for co-hosting and colocation services, PEER 1 Hosting found it necessary to virtualize the servers. As IT Administrator Jason Brewer describes, “Physical servers take up too much space, and that was limiting our ability to grow. Virtualization solved that problem, but the large and growing environment created another one by becoming almost impossible to manage well.”

As the number of virtual machines grew, Jason and his internal IT support team realized they needed more sophisticated analytical capabilities to manage the multi-data center environment more efficiently and effectively. Due to a lack visibility into the environment, many of the management tasks needed to be performed manually using spreadsheets and scripting. And Jason was finding it increasingly difficult to map costs accurately and assess capacity across the infrastructure.

After investigating available VM management solutions, Jason selected VKernel’s vOperations Suite™ (also referred to as vOPS™) based on its comprehensive and easy-to-use feature set. “The VKernel system was quite easy to install during the trial period, and we were able to begin using it right away to find both resource contention and underutilization,” Jason recalls. “These problems are common in most virtualized environments, of course; we simply lacked the analytical tools needed to find and fix them this easily until now.”

Mapping—and—Minimizing Costs

Understanding the relationship between revenues and costs is fundamentally important to a service provider’s ability to obtain an acceptable return on investment (ROI) and achieve profitability. Getting it wrong can even threaten the very survivability of the business. At PEER 1 Hosting, IT operates as an internal cost

center, making it even more critical to understand this relationship—especially in a virtualized environment.

According to Jason, “By giving us a complete overview of our entire virtualized infrastructure, the vOPS Reporting & Chargeback application has enabled us to allocate resources and map costs more accurately than we ever could with a manual system.”

Jason also uses vOPS to keep resource allocations optimized, and not over-allocated, as well as to show application owners that their requests for additional CPU or memory are unnecessary, and will result in no improvement in performance. “We couldn’t really prove this before, and now we can with the VKernel system,” says Jason.

“The ability to automate different vOPS functions makes us even more productive by allowing us to run some of the more detailed evaluations at night”

Automation Saves Time

Jason has found the comprehensive capabilities of vOPS, conveniently integrated into a single package, have dramatically improved the staff’s productivity. For one report alone, he estimates saving at least six hour per week by eliminating the need to create spreadsheets manually.

“The ability to automate different vOPS functions makes us even more productive by allowing us to run some of the more detailed evaluations at night or during

other periods of low demand,” Jason explains. “For example, we use the Rightsizing Automation feature to reclaim resources regularly, and have found that its recommendations can be trusted to optimize the allocations.”

Smart Configuration Changes save Money by Deferring Capital Expenditures

Jason relies on vOPS whenever changes are made to the environment to optimize the configuration. In a hosted environment, applications are added and changed frequently, which requires an accurate understanding of available capacity. PEER 1 Hosting also has a rigorous cost justification system for making capital expenditures to add capacity, and understanding how current costs are allocated is an important aspect of this process. Jason has found this task to be much easier now with the insights provided by the vOPS Reporting & Chargeback application.

More importantly, by finding both underutilized and over-allocated resources, Jason has made it possible for PEER 1 Hosting to avoid adding hosts unnecessarily: “In one situation we discovered that by adding more memory to some hosts, we were able to load several new applications and avoid purchasing the three additional hosts we thought we needed.”



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