VKernel Case Study:
The Netherlands Government

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– Vincent Keeven, *Systems Specialist*, Netherlands Government

Industry
Government

Challenge
Gaining visibility into a virtual environment's resource utilization to spot issues, optimize performance, decrease monitoring overhead, and aid in long-range planning.

Solution
VKernel's Capacity Analyzer quickly found capacity bottlenecks in the environment and began predicting future problems.

VKernel's Optimization Pack allowed for "right-sizing" of VMs so that the data center could appropriately use resources.

Reporting and alerts from both of applications drastically reduced time and overhead of managing the virtual infrastructure.

VKernel at Work
VKernel's Capacity Analyzer and Optimization Pack are both integrated into VKernel's award-winning Capacity Management Suite (CMS).

CMS installs as a single agent-less virtual appliance that collects information directly from the vCenter API and feeds the data into a patent-pending Capacity Analytics Engine.

The Netherlands Government
As Systems Specialist for a large government agency in the Netherlands, Vincent Keeven has a single focus: to deliver IT solutions that support critical government operations with the utmost reliability and efficiency. To serve the agency's growing needs, Keeven's team has built a substantial virtualized infrastructure encompassing 88 sockets and 600 virtual machines.

Managing such a large and dynamic virtual environment was a complex and time-consuming task that was diverting scarce professional resources away from other high-value tasks. Keeven's team was using VMware's vCenter management console, but something was missing.

Needed: Visibility
"We needed better insight on what's really going on across our VM environment. The VMware tools weren't providing the information we needed to adjust our environment for optimal performance," Keeven says. "We wanted a tool that could clearly report which VMs had a low level of memory or high CPU values so that we could do something about it proactively." Keeven and his colleagues evaluated solutions from Veeam Software and VKernel.

They chose VKernel, implementing VKernel's Capacity Analyzer™, which shows how VM capacity bottlenecks impact current and future performance, and Optimization Pack™, which helps administrators improve VM capacity utilization. Both are installed as virtual appliances.

Immediate Value
Keeven says they didn't have to wait long to realize VKernel's value.

"Within days, the Capacity Analyzer had enough history on our environment to provide valuable insight on our VM capacity and performance," says Keeven, adding that he was able to quickly identify some VMs with incorrectly set resource limitations. "The VKernel report made it very easy to discover."

VKernel's reporting capabilities are key to the solution's value, he says. The Capacity Analyzer report clearly shows the impact of workloads on CPU, memory, disk throughput and disk I/O latency performance across the VM environment—and provides actionable recommendations for optimizing utilization and performance. Keeven especially likes having the ability to schedule delivery of Capacity Analyzer reports via email or to a public folder.

"This really helps my team because now they don't have to continually check the environment directly. They simply review the reports when they come in at the scheduled time and quickly check to see if there are alerts warning of potential capacity issues," he says. "That's a big win for us."

Resource Planning

The Capacity Analyzer also helps Keeven look into the future. "We can see ahead of time where we may have capacity bottlenecks in the future, so we can take steps to prevent them."

It also tracks which virtual environments have grown in a specified period of time. Per Keeven, "This information is helpful for long-range planning with senior management".

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Keeven's team also relies on VKernel Optimization Pack to help "right size" his VM resources.

"We are using it primarily to optimize our CPU memory use," he says. "The Optimization Pack shows where we can recapture VM resources and recommends specific adjustments with the option to automatically apply the settings. It makes managing our VM resources much faster and easier."

Financial Insight

Keeven says another VKernel solution, Chargeback™, will help him address an important policy change coming next year. Chargeback enables IT managers to accurately map VMware virtualization costs against applications and users.

"Starting next year, a new policy will require that governmental departments be billed for their use of IT resources. Chargeback will give us the application-level information we need to support billing for those services," he says.

Rapid Payback

In the meantime, Keeven says the VKernel solutions have proven their ability to save significant time and money. In fact, they have more than paid for themselves. "In the past, managing our VM environment was a full time job," Keeven says. "VKernel has cut the time spent managing our environment in half, at least. We're getting more done with less effort—and fewer FTEs."

Keeven says VKernel has also helped raise his confidence level that things are under control. "Now, if I don't hear about it, I know it's running properly. Basically, it's now a self-administering environment."

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