

## vOPS™ Performance Analyzer

vOPS™ Performance Analyzer, part of the VKernel vOperations Suite™ provides VM administrators with real time analysis of Microsoft Systems Center and VMware vCenter system alerts and metrics to determine root cause, impact, and remediation steps for Hyper-V, Red Hat Enterprise Virtualization (RHEV) and vSphere performance issues. Performance Analyzer is easy to install and provides immediate value.

### Part of the vOperations Suite

Performance Analyzer is one of four applications that make up the VKernel vOperations Suite – an award-winning set of integrated products for monitoring, planning, optimization, reporting, and chargeback for virtual environments.



### How Performance Analyzer Works

Performance Analyzer is integrated into VKernel’s vOperations Suite which collects information from Systems Center and vCenter. vOPS™ then feeds the data into VKernel’s patent-pending Capacity Analytics Engine™ which analyzes thousands of data points across the entire virtual environment in order to:

- Automatically profile each VM’s workload and its consumption of CPU, memory, disk throughput, IOPS, and latency over time
- Build a performance model of the entire virtual environment and match Systems Center and vCenter alerts to detected issues

to identify root cause and offer specific solution recommendations

- Detect relationships between hosts and VMs to datastores and VMs that share resources to provide performance issue impact analysis
- Identify existing capacity bottlenecks
- Detect trending changes or abnormalities in resource utilization that could become performance problems

### Spot VM Performance Issues at a Glance

Performance Analyzer features the vScope Performance Heat Map that displays the status of all VMs and hosts in an environment across multiple sites and hypervisors on a single screen. Administrators can mouseover and click on any issue and drill down to more detail including root cause analysis and resolution steps.

### Find Root Cause of VM Performance Issues

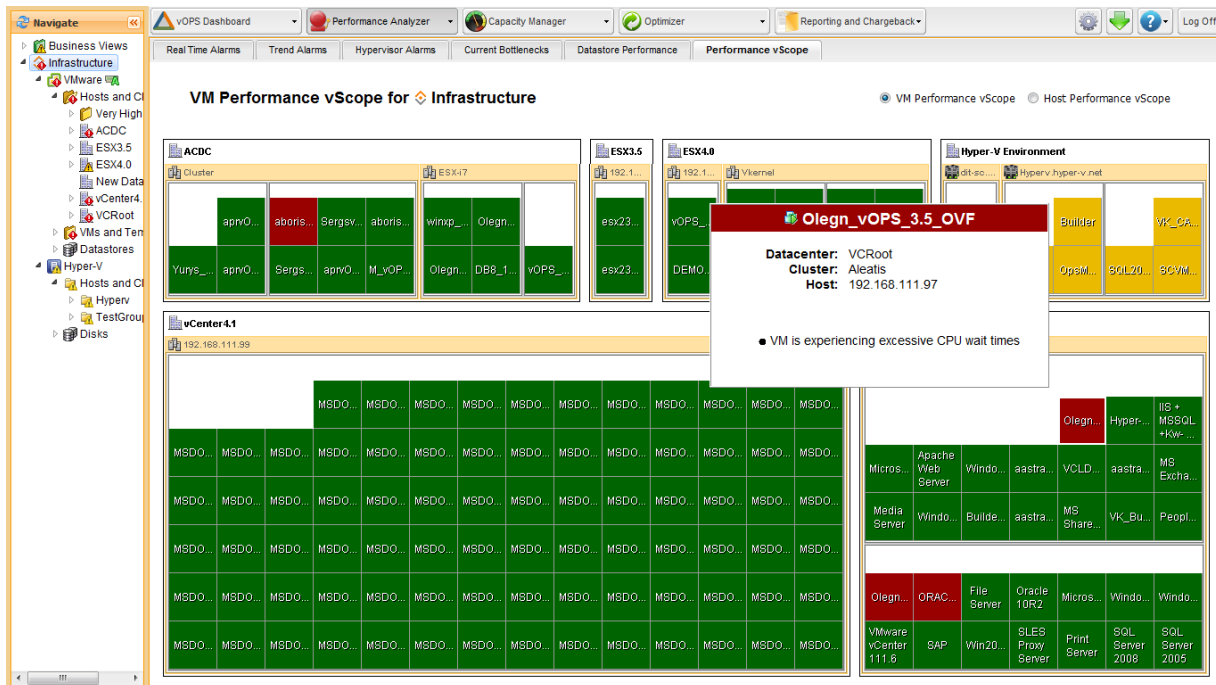
A VM performance issue can affect several other VMs that share resources. Systems Center and vCenter will generate an alert for each problem detected in an affected virtual object which can result in multiple alerts stemming from a single issue. Performance Analyzer identifies the root cause behind one or multiple Systems Center or vCenter alerts, providing immediate answers to the underlying problems affecting a VM.

### Resolve Performance Issues with One Click

For a subset of VM performance problems, resolution steps can be enacted automatically with the click of a button.

### Gain Visibility into Datastore Performance

Disk throughput, latency, and IOPS for every



datastore can be assessed at average and peak levels. Administrators can then drill-in to see how each VM and host contribute to disk traffic.

### Gauge the Impact of Performance Issues

When a performance issue occurs, mission critical applications must be immediately assessed for related problems. Performance Analyzer identifies which VMs have been impacted and makes this information immediately available to a VM administrator.

### Identify Existing Capacity Bottlenecks

Performance Analyzer collects and analyzes over 20 VM statistics at various levels. This analysis identifies all virtual objects facing memory, CPU and storage related bottlenecks. The results are sorted by severity and drill-down reports show root cause and issue resolutions.

### Alerts on Abnormal Resource Trends

Performance Analyzer will detect and can alert on abnormal changes in resource utilization. A number of alerts are pre-configured within the product and immediately available. Additional trending alerts are customizable for VMs, hosts,

clusters, resource pools, datastores and the entire data center. Alerts can be sent through email, SNMP, RSS feed and to Microsoft's SCVMM.

### System Requirements

vOPS (includes Performance Analyzer) requires:

- 4 vCPUs
- 8 GB of memory
- 64 GB of storage space
- VMware ESX 3.0 or vCenter 2.5 or higher (if installed as a VMDK)
- Microsoft Systems Center Operations Manager 2007 R2 (if installed as a VHD)
- Microsoft Systems Center Virtual Machine Manager 2008 R2 U1 (if installed as a VHD)

### Support

For technical support please visit <http://www.vkernel.com/support>, email [support@vkernel.com](mailto:support@vkernel.com) or call +1 (978) 289 6300.

VKernel  
300 Brickstone Square, Suite 503  
Andover, MA 01810  
Phone +1 (978) 289-6300  
Fax +1 (978) 289-6301



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