

Chargeback



Business Level Cost Visibility

VKernel Chargeback

Chargeback is an easy to use solution that enables IT managers to accurately map virtualization costs against applications and users. It provides business level visibility and reporting on actual consumption of expensive server and storage resources by application, VM and business group.

How it Works

VKernel's Chargeback is a virtual appliance that can easily be installed in minutes and:

- Collects infrastructure configuration from VMware vCenter or ESX
- Profiles each application workload (VM) and its consumption of CPU, memory, disk and disk I/O resources over time
- Enables user defined resource costs and grouping of VMs
- Automatically generates cost allocation reports by business group based on actual resource consumption

Application Level Visibility into Resource Consumption

In the non-virtual datacenter, where applications have dedicated server resources it is relatively straight forward to measure the IT costs associated with business applications. Physical server costs can be directly allocated to an application. This is referred to as the resource allocation model.

In the virtual datacenter, application VMs compete for shared physical resources such as CPU, memory, disk and storage I/O. VMs can also move between

physical machines. Further, systems administrators tend to over-allocate server and storage resources when creating a VM. The resource allocation model is highly inaccurate in the virtualized environment.

VKernel's Chargeback application was specifically designed to provide accurate cost visibility in the virtualized datacenter. It constantly monitors the actual consumption of server and storage capacity by individual VMs and applications. Business managers benefit because they can base investment decisions on an accurate accounting of the actual cost of providing business applications.

Business Level Visibility to Virtual Infrastructure Utilization

In the physical datacenter, server and storage resources were often dedicated to mission critical applications that could be directly related to key business functions or departments. In the virtualized datacenter, these resources are shared as application VM workloads move in and out of usage, over time and across multiple physical resources.

Chargeback overcomes the challenge of providing cost visibility in the virtualized datacenter. It allows users to define groups of VMs and relate them to specific business groups. CRM applications can be tied to the sales department, accounting applications to finance, etc.

The combination of grouping VMs by business function and measuring actual resource consumption results in a cost allocation that is truly based on business usage.

The benefit is that IT management now has the visibility it needs to allocate virtual infrastructure utilization and costs to actual business functions and applications.

Usage Based Chargeback or Cost Allocation

Chargeback allows user defined cost rates for CPU, storage, memory and network. Since these costs are often difficult to calculate, the software includes default rates. Whitepapers, workshops and a VKernel designed Chargeback Calculator are available at <http://www.vkernel.com/resources> to assist the user in establishing a viable cost visibility or chargeback process.

Chargeback also allows users to mix the resource consumption model with fixed cost allocations for overhead resources. Flat rate allocations can be set for items such as floor space, HVAC, power, and administration costs.

Custom Group	Resource	Price, \$/unit	Resource usage, unit*	Cost, \$
Windows servers	CPU	0.33	0.87 GHz	0.29
	Memory	0.00028	6625.22 MB	1.86
	Storage	0.00327	224.0 GB	0.73
	Network	0.0	41.34 Kbps	0
Finance	CPU	0.09	4.57 CPU	0.41
	Memory	0.01	7834.35 MB	78.34
	Storage	0.9	350.01 GB	315.01
	Network	0.0	41.34 Kbps	0
	LicenseFees	1.50	7.0 day(s)	10.5
	AV	1	7.0 day(s)	7
	Administrative	3	7.0 day(s)	21
	Backup Software	2	7.0 day(s)	14

Users can mix consumption and flat rate cost allocations

Custom Usage Reporting

Each business is different and each IT organization has a specific need to provide visibility into the costs of their operations. VKernel's Chargeback product is designed to meet the reporting and visibility needs of a diverse set of organizations quickly and easily.

In a matter of hours organizations can gain visibility into which business groups are consuming which infrastructure resources. Further, this visibility can be provided at any level of the virtualized infrastructure including application, VM, host, cluster, resource pool or the entire datacenter.

With Chargeback's ability to define custom groups you can link resource usage and costs directly to the business function. Chargeback also allows you to schedule these reports to be generated at any time and frequency. Reports can be output as PDF or exported to CSV.

Now you can provide key business users with reports which show resource consumption by application and see the cost based on actual resource consumption.

Supported Environments

Chargeback is a virtual appliance which installs as a VMDK on your ESX server.

Systems Requirements

VMware ESX 2.5 or vCenter 2.5 or higher

Support

For technical support please visit <http://www.vkernel.com/support>, email us at support@vkernel.com or call +1 978 289 6300.