



Tek-Tools' Profiler for VMware Virtual Infrastructure Helps Better Manage IT Resources

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Introduction

When a patient goes to a doctor, someone takes their temperature, measures their blood pressure, and measures their height and weight. They may listen to their heartbeat. These measurements serve to focus the subsequent diagnosis – and to eliminate areas of concern. IT environments have similar baseline measurements of capacity, utilization, etc., but many of these measurements come from vendor-specific tools. **A tool that could monitor all the physical IT elements and that can extend to applications (the things that draw on the resources) and data replication (essential to guarantee the persistence of electronic information) would give a fuller and more accurate picture of what is going on.** In a patient, these might correspond to lifestyles and nutrition that doctors talk more about these days. In both patients and IT infrastructures, all areas must be monitored in relation to each other to give an adequate view of fundamental system health, which will determine what kind of system activities are possible, and which will require additional resources. With soaring energy costs and, in certain metropolitan areas, curtailed access to energy resources, that baseline of IT health becomes very important.

Virtualization

When that patient goes back to work, he or she rejoins a work force. The business uses its work force as a pool of resources to meet its business goals, assigning people by their capabilities (real or expected), not by their name. By reassigning, the business can do more things with its resources. IT virtualization similarly uses a layer of re-direction to support pooling, consolidation, and better use of resources. Resource capacities are assigned, not by specific designation, but by capacities and requirements. As the HR department must know the particulars of a person being reassigned, IT management must be able to navigate all the redirection, or change becomes difficult and risky.

Consolidation is also a matter of reusing unused or idle capacity – but you can reuse it only if you can identify its physical location and measure. However, the location of this physicality may be obscured by the veil of virtualization's indirection. Reclaiming that idle capacity can only be done if all capacity resources can be measured. In IT infrastructure optimization, as in business, it's the hidden costs that kill you.

Tek-Tools Profiler

Tek-Tools, based in Dallas, Texas, has supplied comprehensive monitoring and reporting capabilities for several years with their *Profiler* tool. Profiler is a Web-based tool that supports monitoring, reporting, forecasting, real-time and historical analysis, alerts and consequent actions, and, most recently, what-if scenarios for planning.

Tek-Tools Profiler is well regarded. Its customer base includes every industry. Systems integrators leverage its agentless approach to get a quick view of client environments. Service providers use its comprehensive scope to monitor the complexity of their multi-tenant facilities. Six vendors resell or rebrand Tek-Tools Profiler to sell to their customers, and others use it in their professional services engagements.

Profiler supports flexible grouping and profiling to fit a business-process view of resource use. Profiler can report to a variety of IT management applications. Its reporting gives both traditional and more business-centric management tools¹ knowledge of the physical layer that, in the end, is the object of their optimization.

Tek-Tools Profiler for VMware Virtual Infrastructure

Today, Tek-Tools announced its *Profiler for VMware*² tool, which addresses ESX hosts, their Virtual Machine Guests, and the storage assigned to them. It works with VMware's APIs and the VMDK (Virtual Machine Disk Format) specification that describes how the virtual machine elements are stored, to collect information about the virtual use of assets by remote calls. **Early customers of the new tool have found it useful not only for supporting a comprehensive and much needed view of the virtual infrastructure, but also for finding and rescuing for reuse considerable amounts of over-provisioned storage, and for identifying additional candidates for virtualization.** And, that is just in the first few weeks of use.

VMware's *VMotion*, by which running virtual machines can be sent from one server to another, adds another challenge to the management of virtual resources. Profiler for VMware can be configured for the frequency of its polling of resources, and a click will force a refresh. **In an environment of fast growing and movable resources, historical reporting becomes more important, not less. Trends, and the strategies to cope with sudden changes in demand and resource use, must become part of the arsenal of strategies used to support business as usual.**

Over time, and as composite applications add a lot more small – sometimes occasionally-used – workloads that can be sited opportunistically, more can be done. Historical reporting of the application components that support a business process can expose patterns of resource consumption. Server virtualization can be used not just to pack applications more

densely on physical resources, but also, with these profiles, to do it more sensibly. Colocated applications, whose resource use complements each other (like daytime/nighttime, sort of like complementary angles in geometry), will add another dimension to the concept of “multi-tenancy.” **All the information that Profiler offers on application use of resources provides a potent tool to meet the changing requirements of dynamic business processes. The ability to model what-if scenarios turns capacity, performance, and availability planning from an exercise in worst-case scenarios to a flexible tool by which to optimize lean, efficient, strategic operations.** As many business models become multi-channel, more reactive to the needs of customers, and ever more complex, the operational agility provided by Tek-Tools Profiler is clearly needed.

Pricing

Profiler for VMware costs \$995 per ESX server, regardless of the number of guests. For organizations with multiple ESX servers, volume discounts are available. New Tek-Tools customers will also have to buy a *Profiler Server*, which includes the Profiler databases, for \$1995.

Conclusion

In both biology and IT, system health is a matter of its ability to respond to challenges – not just a matter of *ain't dead yet*. To get the most out of your IT infrastructure, you need ongoing basic information on the physicality and the virtual reassignment of that physicality. Now, with Profiler for VMware Virtual Infrastructure, Tek-Tools gives you what you need. If you see this as just a tweak or simple extension to a seasoned, reliable tool, you are leaving a lot of opportunity on the table.

Think about how you could take all you know about your organization's applications and infrastructure, and turn it into scenarios on how to better support your business seasonal busy time and quarterly closes as well as your need for rapid, low-risk change. If you can measure it, you can manage it. If you can manage it, you can do it. It is time to start thinking proactively.



¹ Such application performance management and business activity management.

² Profiler plans to address other virtualization platforms in the future.

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