



## **Blackhawk Technology Consulting LLC**

### ***Blackhawk Virtualization Management Solution Datasheet***

#### **Overview:**

In today's virtualized world, very few if any enterprise server environments are virtualized fully, and what that means is that a majority of IT directors and executives are faced with managing virtual and physical servers. Virtualization has become a key technology which has been deployed by an increasing number of IT organizations worldwide. System virtualization has quickly gained popularity because of its potential to reduce IT costs, a goal for all data center managers.

In its simplest form, virtualization allows IT managers to optimize the utilization of existing physical resources and even reduce the number of systems which are deployed and managed. The consolidation helps reduce hardware management requirements, mitigates power and cooling needs, and thus lowers IT costs overall. However, while system virtualization can reduce the cost of owning and maintaining physical hardware, some of the savings may be offset by the added systems management and monitoring complexity introduced by virtualization. Instead of managing numerous physical servers, system administrators are managing many Virtual Machines (VMs) consolidated onto fewer servers. The management complexity has now shifted from hardware to virtual systems. In addition to this, deploying virtualization solutions typically means adding more management tools, which requires administrator training and further increases complexity and cost. This increase may very well be even larger for IT organizations that deploy virtualization solutions from multiple vendors.

Managing virtual servers requires IT managers to think outside the box-literally. System administrators trained to check the health and availability of physical servers now must figure out how to distinguish between what's happening at the physical level with what is going on in the virtual realm. Obviously, they have to understand the many facets of virtual servers. Then they have to couple that with knowledge of how to fine-tune each virtual machine as it resides with others on one physical hardware box. Simply put, running a virtual server environment and

a physical environment calls for a strong and reliable set of management tools and a new mind-set.

## **Filling the Gap for a Comprehensive Virtualization Management Solution:**

The wide-spread rush and adoption to deliver server virtualization solutions in today's IT world has produced some of the most staggering and remarkable successes, but there still remain some very significant holes in the management tools and best-practices. Industry analysts and end-users have stated that key vendors and integrators like IBM, Microsoft, VMware Inc., Virtual Iron Software Inc. and Citrix Xen and others are hard at work on management tools and several are on the verge of releasing beta versions. However, fully formed server virtualization management tools and best-practices will need to be addressed. Some of the specific gaps that have been addressed by analysts and end-users include tools to facilitate automated asset discovery, software usage and license tracking, the ability to effortlessly determine organization-wide compliance and track changes to an individual IT asset throughout its lifecycle. Some other gaps that have been identified have been tools to facilitate patch management, backup and restore and management and workload balancing.

Ty Schwab, CEO and CTO of Blackhawk Technology Consulting states that "It's a matter of moving from managing one Virtual Machine at a time to an entire group." That specific challenge becomes more obvious when you are patching OS's or signing software licenses says Ty Schwab. In these cases, he points out that each virtual server will need to be patched even if they all reside on one physical server.

With the above gaps in virtualization management tools and best practices, a complete and comprehensive virtualization management solution is needed now more than ever. Ask today about the Blackhawk and Veeam Software Virtualization Management Solution!

## **Blackhawk Virtualization Management Best-Practices:**

The inherent benefits of virtualization can be tremendous, but only when you are adequately prepared. Do you have a plan for monitoring and reporting on the state of your physical and virtual systems? Can you ensure that each virtual machine is appropriately configured and in a known and trusted state? Recently, Neil MacDonald, Gartner Vice President, stated that through 2009, 60 percent of production virtual machines would be less secure than their physical counterparts. The majority of businesses would definitely find that number unacceptable. The majority of virtualization experts and analysts agree that without solid best-practices and management tools that include configuration

audit and control, the huge savings and convenience that initially lure a company to virtualize can just as easily turn into a network and data security nightmare.

As it is with any technology, increasing your flexibility brings the complexity of managing that technology. This is clearly the case with virtualization. It is often possible to start with a basic deployment to minimize complexity and as you progress, configuration planning, deployment customization, change management, troubleshooting and so on becomes only more complex. As businesses move to more advanced instances of virtualization, they follow the development model of systems management: from scripting to point solutions to integrated, automated solutions to the bible of policy-based autonomic management.

While there has been some substantial progress with VMware's management tools like VMotion, VirtualCenter, High Availability (HA), and Distributed Resource Scheduler (DRS), users still struggle with management approaches which require too much "Do It Yourself" effort as well as a highly-skilled team to support your virtual environment. Configuration is still manual and involves lots of planning, OS builds, pre and post template deployment requiring scripting, etc.

Such virtualization pitfalls which can often be associated with a virtualization initiative can include: network configurations, I/O requirements, patch management, planning, and storage and systems management. With these pitfalls and constraints, it is imperative that a trusted framework and set of best-practices be implemented to ensure that pitfalls such as these and some unforeseen pitfalls don't bring down your virtualization initiative before it gets the chance to get off the ground. Learn how the Blackhawk Virtualization Management Framework and Best Practices can help you today!

Effectively implementing and managing a virtual environment can be tricky and time-consuming and having best-practices in place can be critical to ensuring that your virtualization strategy runs smoothly. Blackhawk Technology Consulting LLC has developed a virtualization management framework and a set of industry proven best practices to ensure that your virtualization initiative goes right the first time around. With companies like The Taubman Company, Lane Community College, Les Schwab Tire Centers, The University of Oregon, Qualcomm, Motorola and Expedia, the Blackhawk Virtualization Management Framework and Best-Practices have ensured that these companies virtualization initiative has succeeded and that the management pitfalls that are associated with managing a virtualized environment have been mitigated. Learn today how the Blackhawk and Veeam Software Virtualization Management Solution can help your business realize the awesome power of virtualization.

## **The Blackhawk Difference:**

A virtualization initiative can bring a merit of benefits and flexibility, but when you add into the equation multiple hypervisors, hundreds of virtual machines, storage,

networking and physical servers into the picture, you could have a virtual nightmare. Virtualization management tools and best practices can ensure that the nightmare never happens and Blackhawk and Veeam Software are here to help.

In a July Network World article, Steve Henning wrote, "Data centers managers are now bracing for the next wave of heterogeneity - hypervisors. In the 90s, a heterogeneous data center usually meant Windows, NetWare, Linux, HP-UX, AIX, Solaris... Today, it's VMWare, Hyper-V and Xen. The challenge they face is how to manage this infrastructure without the operating costs getting out of hand." He added, "What is needed is a clean slate approach to managing a heterogeneous hypervisor environment. One that is completely agnostic to the underlying hypervisor (case in point - can I automatically migrate a VM from an ESX to a Hyper-V environment based on load thresholds?" The team at Blackhawk Technology Consulting LLC welcomes the opportunity to offer that clean slate approach to your growing virtualization management challenges.

Blackhawk Technology Consulting is unique in that its technology professionals have proven expertise and capabilities in virtualization technologies, from planning, designing, deploying, and supporting organizations using virtualization technologies so that businesses can remain productive and profitable.

For more information or to receive a quote for the Blackhawk and Veeam Software Virtualization Management Solution, please call (541) 505-7229 or e-mail [sales@blackhawk-tech.net](mailto:sales@blackhawk-tech.net).

© 2008, Blackhawk Technology Consulting