SearchServerVirtualization.com Pocket Guide

Which virtualization management tool is right for your organization?

Are you planning a virtualization project, but are not sure which management tool your organization should buy? In this informative Pocket Guide, brought to you by SearchServerVirtualization.com, Dell and VMware, learn more about the virtual management tools on the market and their functionality. Discover which product capabilities organizations should consider when evaluating virtual infrastructure management technologies.

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Which virtualization management tools should you buy?

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A new class of management technologies has emerged to help administrators overcome challenges as they scale a growing virtualized infrastructure. Called virtual infrastructure management, lifecycle management, policy-based management and orchestration applications, these virtualization management tools go beyond the capabilities of hypervisor-based element managers to solve many of the problems associated with fast-growing virtualization environments. In this article, I look at the functionality of these tools to manage a virtualized infrastructure and offer a list of capabilities that you should consider when purchasing a virtual management product.

Virtualization management tools and their functionality

Core virtualization platform providers -- Citrix Systems, Microsoft and VMware --- provide hypervisor element management tools, and traditional system management vendors -- BMC Software, CA, Hewlett-Packard and IBM --- have begun to adapt their tool sets to manage virtualized infrastructure. In addition, the following vendors provide products that address virtual infrastructure management issues:

- **DynamicOps.** DynamicOps Virtual Resource Manager (VRM) automates the deployment and management of virtual infrastructure based on a set of pre-defined policies. VRM provides users with a self-service provisioning portal, powerful and customizable workflow, and an open architecture that enables VRM to integrate with other major enterprise systems and manage heterogeneous virtualized environments. The product can also manage virtual servers and desktops. Originally part of banking giant Credit Suisse VRM became a separate company, so it has strong operational roots, and for several years it has been used in production.

- **Embotics.** Embotics V-Commander is a policy-based VM lifecycle management system that provides IT managers with enterprise-wide insight into and control over a virtual infrastructure. V-Commander allows organizations to prevent virtual machine (VM) sprawl by tracking and controlling a VM throughout its lifecycle as well as automating critical management and monitoring tasks. The agent-free architecture enables the integration of V-Commander with major data center management systems and virtualization management environments. Founded in 2006, the company has taken advantage of its five years of prior R&D investment in its current product.

- **Fortisphere.** Fortisphere Virtual Essentials is yet another policy-based virtualization management technology that provides visibility into and control of the inventory, configuration and lifecycle management of virtual machines. Organizations use Virtual Essentials to automate the process of identifying, tagging, tracking and reporting on all VMs as they move from development into production and to enforce operational and IT security policies through built-in best practices.

- **Hyper9.** Hyper9 is a search-based software platform for managing virtual environments. Hyper9 leverages a Googlelike search engine to access real-time and historical data on components from the guest operating system to the physical infrastructure. It then presents the data with a next-generation user interface. As a result, Hyper9 supports rapid troubleshooting, comprehensive monitoring, and detailed reporting on performance, configuration and utilization of virtual environments.

• **ManageIQ.** The ManageIQ Enterprise Virtualization Management (EVM) suite of products provides comprehensive management of virtual assets. EVM provides insight into VMs, including detailed configuration information; captures interdependencies of virtual components; enforces controls over VM execution and operations; and easily integrates with major management systems and processes. The suite also provides real-time, policy-based management security and compliance controls over VMs.

Virtualization management product selection considerations

When evaluating virtual infrastructure management technologies, users should consider products with the following capabilities:

• **A high level of scalability**. In enterprise shops, the number of virtualized servers has grown rapidly, and as organizations begin to virtualize large numbers of desktops,the need for robust and scalable virtual management capabilities becomes even greater. So the technology you purchase should be able to manage multiple hypervisors and scale hundreds of physical servers, thousands of desktops and dozens of virtualization management instances.

• **Open and extendable architecture.** Given the growing diversity of virtualization products on the market, a virtualization management tool must provide support for multiple vendors and technologies. This includes major hypervisors, connection brokers, OSes and application deployment offerings. The product must have interfaces that allow easy integration into customers' existing management ecosystems, and should provide a common interface and set of processes for managing physical and virtual infrastructure. The product should also include open interfaces for integrating with major enterprise software systems, such as configuration management databases (CMDBs) and other IT management packages.

• **Powerful, flexible workflow.** The virtualization management offering must be policy driven and provide workflows that can be extended and customized to fit an end user's needs. The workflow engine should be able to automate the execution of manual, repetitive tasks that are required to provision and manage a virtual infrastructure.

• **Ease of use and administration.** The management technology should provide users with a self-service portal to provision and manage their own virtual servers and provide administrators with a visual dashboard and array of reporting capabilities. The tool should also offer a set of pre-defined, out-of-the-box templates and workflows.

What will the future bring?

Looking ahead, the Taneja Group believes that the next generation of virtualized infrastructure management technologies will enable users to increase IT productivity further by spanning physical and virtual infrastructures while enabling the management of all IT resources (see Figure 1). Resources include servers, memory, networks and storage -- from a single, unified interface.

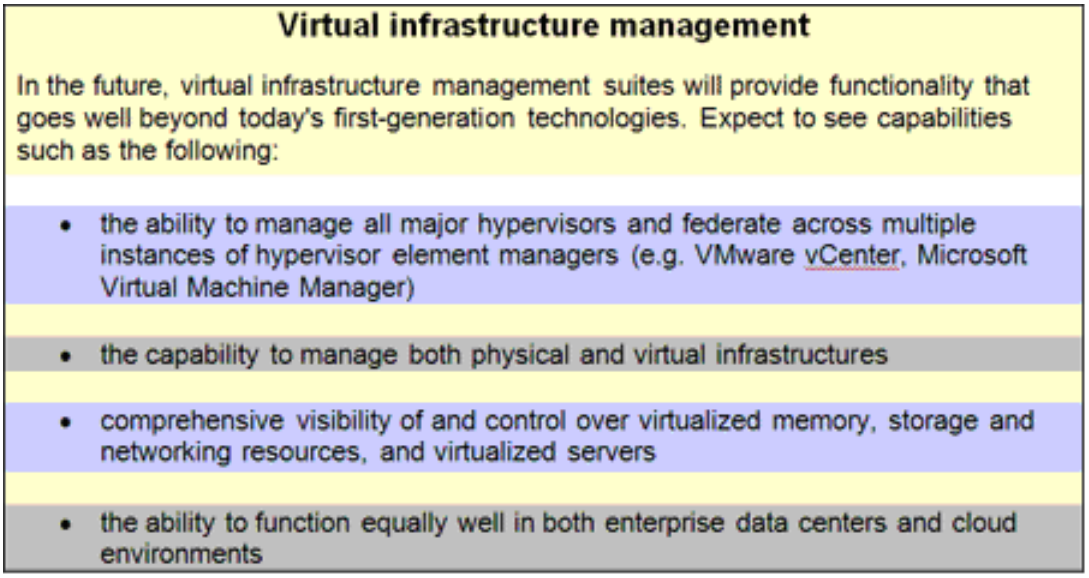

Figure 1: The future of virtual infrastructure management

Fortunately, virtual server administrators don't have to wait for relief from issues that can severely hamper a virtual infrastructure such as sprawl, manual provisioning and administrative complexity. This new generation of automated technologies we have outlined can bring immediate relief to embattled administrators working with VMware infrastructure and other server virtualization environments.

Resources from Dell and VMware

Video: Why Virtualize? What are the Benefits?

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