

# Why Effective Virtualization Monitoring Matters

# WHY EFFECTIVE VIRTUALIZATION MONITORING MATTERS

The growing acceptance and maturity of virtualized environments demonstrate that organizations not only use them for smaller, non-critical applications such as file and print servers or development, they now deploy business-critical resource-intensive services and applications, such as enterprise resource planning (ERP), production and email on virtualized infrastructures.

That accelerated acceptance has, in turn, spurred organizations to adopt other business-impacting technologies like converged infrastructures and “software-defined

everything,” all of which are leading the industry through a complete digital transformation. Virtualization functions as the cornerstone by demonstrating important financial and operational benefits through reduced hardware and related support costs, increased flexibility, lower energy costs and greater space utilization, delivering lower total cost of ownership (TCO) for businesses of all types.

To realize the full benefits of virtualization, three factors are essential: maximum availability, optimum resource utilization and low TCO.



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# AVAILABILITY

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Availability is a key benefit of virtualization, but it is not guaranteed. Precise monitoring tools and techniques are essential to enable proactive problem identification, faster root-cause analysis and intelligent event correlation. When services that depend on virtualized resources experience issues, or dynamically require additional resources, their dependencies can change quickly.

Understanding these dependencies, how they affect other services, and the patterns that underlie the initial cause are the keys to ensuring service availability in a highly virtualized environment. Monitoring systems must be able to quickly adjust and provide full visibility in real time to the underlying devices and systems a service depends on.

# TOTAL COST OF OWNERSHIP

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If your investment in virtualization doesn't deliver tangible business benefits, like increased agility or heightened service levels, and if it doesn't also reduce your total cost of ownership, then the effort to virtualize is a wasted one, and you may as well maintain a physical environment. Your monitoring solution should also play a part in the overall cost-control agenda by providing straightforward pricing models that allow you to understand the cost effects of quickly spinning up new resources in a monitored environment.

Tools that charge licensing based on the number of virtual devices, or that require separate licensing for added virtualization monitoring functionalities, can quickly offset the cost benefits that virtualization was intended to create. In addition, your monitoring solution should help improve capacity planning and system utilization functions to ensure the highest return on overall system investments.

# UTILIZATION

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Virtualization has the potential to allow IT departments to fully optimize hardware utilization. However, this requires a high degree of orchestration and automation so that you can push the envelope on capacity usage without over-provisioning resources. Your monitoring tool needs to tightly integrate with the other systems in your IT operations management (ITOM) chain to enable a seamless workflow.

For instance, if a resource is running out of memory, your monitoring tool needs to not only alert on it, but (as part of a modern monitoring tool chain) confirm that resource is supporting a critical service and then kick off a runbook with an automation tool (like Chef, Puppet or SaltStack) that allocates, or spins up, more resources automatically. Your monitoring tool should then also automatically be notified of the new resource allocation, close the initial alert, and then monitor the new resource and its relationships.

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