Top Considerations for Selecting a Virtualization Management Tool
Virtualization Management is a Critical Foundation for the Future

Server virtualization has provided dramatic benefits to IT organizations. Server consolidation has made it possible to abstract servers of different types into virtual machines (VMs). These VMs can then be managed more efficiently than physical servers. Virtualization also reduces compute costs significantly, including capital expenditures and heating and cooling.

Virtualization is a fundamental step in a journey towards creating a more agile, efficient, dynamic, and responsive IT organization. Improving and optimizing the operations and management of a virtualized environment is key to running a secure, in-house cloud solution.

This paper presents evaluation criteria for virtualization operations management tools. We use VMware vSphere® with Operations Management (vSOM) to highlight the "must have" capabilities that provide greater efficiency today and the foundation for more advanced cloud management initiatives going forward.

The Limitations of Legacy Management Tools

Over the last 30 years, infrastructure management vendors have promised to give enterprise IT a single pane of glass that will enable your administrators to see and manage everything in your physical infrastructure environment.

Unfortunately, vendors have failed to deliver on this promise, especially as virtualization has begun changing the way data centers operate. Legacy solutions built for the physical data center assumed a relatively static environment—workloads dedicated to servers and a very low rate of change. These assumptions have made it impossible for vendors to fully modernize these solutions for a dynamic shared data center.

Legacy vendors have bolted-on virtualization management tools. These tools consume the standard vSphere API data, store the data in a database, provide a dashboard for the data, and provide alerts and reports on the data. The limitations of this bolted-on approach are:

• By relying on the same data that everyone else is reliant upon, the management tool doesn’t provide you with unique and differentiated value.

• The tools use manual thresholds instead of automated analytics to understand the difference between normal and abnormal behavior, creating significant operations and maintenance work for administrators.

• Because the tools don’t combine unstructured log data with the standard structured performance data from the vSphere API, it increases the amount of work that administrators have to do in order to make sense of log data.
What to Look for in a Modern Virtualization Management Tool

Here are two areas that are important to evaluate in a virtualization management tool:

**Smarter insights:** You can’t manage what you can’t see. Avoid a management tool that just gives you a data dump using a third-party dashboard. Instead, look for smarter and more comprehensive visibility.

**Accurate capacity planning:** It’s hard to overstate the amount of time and money that most IT organizations waste on over-provisioning. The right virtualization management tool will provide smart, automated capacity planning and workload placement. It accurately analyzes capacity needs and eliminates the burden on administrators.

As an example of what to look for in a modern virtualization management tool, let’s look at what vSphere with Operations Management (vSOM) provides in both of these areas.

**Self-learning analytics**
vSphere with Operations Management learns your environment, automatically evaluating more than 600 vSphere metrics so you don’t have to.

**Guided remediation**
vSphere with Operations Management provides simplified problem explanations along with recommended corrective actions. Like having a vExpert, vSOM warns you of potential issues and advises the best way to remediate those issues.

**Automated capacity optimization**
vSphere with Operations Management can reclaim overprovisioned capacity, increase resource utilization, and get rid of complex scripts and spreadsheets.

**Automation with control**
A Distributed Resource Scheduler optimizes workload placement to maximize application performance, evaluating compute, storage and networking dimensions in ways that other virtualization management tools simply can’t do.

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**Single pane management**
vSphere with Operations Management delivers value in minutes after deployment. It points out configuration issues, performance bottlenecks, and opportunities to right size and reclaim overprovisioned capacity, all through a unified management console.

**A foundation that extends to future hybrid cloud management**
In addition to the efficiencies you’re looking for today, you want a virtualization management tool that will serve your ultimate goal of running a secure and agile in-house cloud. vSphere with Operations Management helps you meet that goal by providing scalability and flexibility to support more choices for the future.
Conclusion

vSphere with Operations Management (vSOM) isn’t just a management tool—it’s the industry-leading server virtualization platform. That means it will grow along with you, meeting your needs as they change and evolve. You get the confidence that comes from choosing a solution that provides the best performance, availability, and efficiency in every situation.

The vSphere platform forms the foundation for your applications, your cloud, and your business—with unified, easy-to-use management capabilities that give you control and visibility across your environment. You can choose from three editions in the vSphere portfolio for the features and functionality that matter most to your business.