

Automating the Data Center with VMware Lifecycle Manager

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Abstract: VMware Lifecycle Manager will help eliminate manual tasks and automate the creation, deployment and decommissioning of virtual machines. Lifecycle Manager demonstrates VMware's desire and ability to deliver value well beyond the core hypervisor.

Take Control of the Virtualized Environment

Server virtualization is relatively easy to configure and deploy, which is one of the many reasons we are seeing such rapid adoption of this technology. The creation of virtual machines is simple—requiring only a few mouse clicks—and as a result, virtual machines are proliferating faster than IT organizations can keep pace. This is referred to this as virtual machine sprawl. Rewind the clock a couple of years—we had the same problem in the “physical world” when physical servers were deployed for each new application. In the “virtual world,” the problems of managing, tracking and taking control of the virtual environment is increasing in complexity. In a recent survey of current and planned server virtualization users, current users expected that their total number of virtual machines will increase by an average of 150% over the next two years.¹

In the virtualization ecosystem, things are happening at such a rapid pace that VMware's announcement of the acquisition of Dunes Technologies had been all but forgotten. The event fell into the shadows and VMware has kept integration efforts and progress close to the vest until now. The new product, VMware Lifecycle Manager—announced at VMworld EMEA 2008 held in Cannes, France—is a direct result of the Dunes acquisition. In six months, VMware has taken the Dunes technology and developed a product that allows customers to implement a consistent, automated workflow for creating, deploying, and decommissioning virtual machines.

Automated Workflow for Virtual Machines

VMware recognized that as companies scaled their virtual machine implementations, they needed tools to help manage and control virtual machine sprawl, automate repetitive tasks and provide auditing capability to meet corporate requirements. With virtual machine environments quickly expanding well into the hundreds and thousands and interest in virtual desktop infrastructure (VDI) increasing, gaining control of a rapidly growing environment is imperative. Virtualized environments lack policies and management tools, meaning that virtual machines can be deployed without prior approval. This lack of regulation has led to virtual machines being deployed incorrectly, which also raises performance concerns. Adhering to corporate compliance and company policies is another vital trepidation warranting great control over the virtualized environment—just as in the physical world. Users across all segments and industries can benefit from VMware Lifecycle Manager.

- VMware Lifecycle Manager guarantees intelligent placement of virtual machines across the environment through best practices and a complete approval process—taking the guesswork out of where to run workloads across a production environment. Intelligent placement enables automation as a particular request may map exactly to back end computing resources and once approved, be deployed automatically. The administrator can configure the environment so that more than one resource can fulfill a request and the IT staff can select which resource should be used. This process helps IT staff eliminate many of the manual steps when deploying a VM.

¹ ESG Research: *The Impact of Server Virtualization on Storage*, December 2007

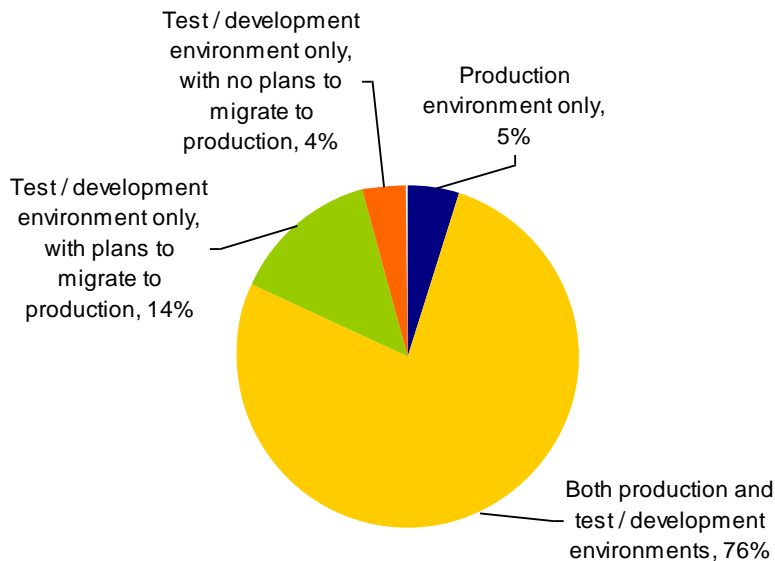
- Creating virtual machines is a repetitive, manual task that is prone to errors and often lacks consistency. VMware Lifecycle Manager creates best practices customized to specific business requirements and includes a set of standard processes that remain consistent throughout the entire virtualized infrastructure. The best practices are easily coupled with workflow automation policies that deliver self service architecture and enable control over the virtualization initiatives.
- Businesses can track and control virtual machines using a consistent approval process throughout the complete lifecycle of a virtual machine. The approval process is routed amongst business decision makers to approve or reject a request based on business requirements such as cost, scope of request or amount of available resources. VMware Lifecycle Manager tracks the approval process and keeps a record of when virtual machines are created, deployed and decommissioned.
- Auditing the entire lifecycle of a virtual machine is mandatory in regulated environments. Corporate policies and IT standards are difficult to enforce and monitor without the proper tools in place. VMware Lifecycle Manager maintains an audit trail that ensures compliance and helps mitigate the risks inherent in the rapid deployment of virtual machines through the use of templates. Users can select from multiple virtual machine templates, but only have access to those made available to them during the request process. Only approved virtual machine configurations are deployed into the IT environment.
- VMware Lifecycle Manager integrates well with an existing set of management tools such as VMware VirtualCenter and other operational tools already in place. Many IT organizations already have tools and processes in place for change management, asset management, and ticketing that can all be leveraged with the integration of VMware Lifecycle Manager. Chargeback can also be incorporated to charge the appropriate business unit with the use of the virtualized infrastructure.

Server Virtualization in Production

Companies are standardizing on virtual machines for production workloads. ESG research found that 81% of current users have server virtualization deployed in a production environment to some degree. Additionally, 42% of survey participants currently rely on virtual machines to support one or more “tier 1” production applications.

FIGURE 1. SERVER VIRTUALIZATION USE IN PRODUCTION

Has your organization deployed server virtualization in a production environment or test / development environment? (Percent of respondents, N = 365)



Source: ESG Research: *The Impact of Server Virtualization on Storage*, December 2007

VMware Lifecycle Manager is well suited to address the transition of physical servers and applications to virtual machines in a production environment. In speaking with companies that have deployed or are planning to deploy server virtualization, ESG finds that users are consistently concerned about performance and specifically concerned about the impact of running multiple virtual machines on the same physical server.

VMware Lifecycle Manager Delivers Data Center Automation

The introduction of VMware Lifecycle Manager is a good thing for VMware and its demonstrating competence and willingness to deliver technology well beyond the core hypervisor. As the market begins to be diluted with other flavors of hypervisors from Microsoft, Citrix, Virtual Iron, Oracle, Sun and others, VMware needs to show how it can consistently add value and generate additional revenue. Lifecycle Manager will offer customers two paths of implementation, depending on the customer's requirements. A "boxed" solution will provide customers a standard set of best practices and automation policies. For customers that require deeper integration, VMware will offer a customized offering that will allow customer to tailor fit Lifecycle Manager into their existing organizational processes.

The success of Lifecycle Manager will be based on VMware's ability to sell into its current customer base and make the adoption of Lifecycle Manager a no-brainer for all customers that are struggling with virtual machine sprawl, compliance and lifecycle management. VMware Lifecycle Manager needs to be viewed as a necessary add-on. In order for VMware to design and build customized solutions, it needs to build integration models and illustrate how Lifecycle Manager integrates well with existing tools.

VMware also has to demonstrate how its ecosystem of partners can leverage VMware Lifecycle Manager. Partners have the opportunity to help VMware customers further utilize their investment by integrating products that build upon the benefits of VMware Lifecycle Manager. For example, users would be able to provision both physical servers and virtual machines with VMware Lifecycle Manager and will rely on partners to help with the physical server provisioning process.

The Bottom Line

VMware Lifecycle Manager enables collaborative processes and IT governance to be standardized across virtualized environments and addresses a real need that customers currently have as they build out their virtualized infrastructure. The tight integration between VMware VirtualCenter and Lifecycle Manager allows businesses to optimize their infrastructure and take control of the rapid transition to the "virtual world." VMware has demonstrated its mastery at the hypervisor level, which has enabled tens of thousands of customers to implement server virtualization. Now is the time for VMware to take a market leadership position with data center automation.

VMware should consider building functionality into Lifecycle Manager that enables users to deploy it regardless of hypervisor—enabling lifecycle management across the entire IT infrastructure. There is a subset of current VMware customers that will see an immediate need to implement Lifecycle Manager, but locking companies into a single server virtualization solution could delay the potential success of Lifecycle Manager. VMware is poised to be a leader in data center automation if it can show customers that implementing Lifecycle Manager is easy to manage, cost effective and aligns with business requirements.