

Symantec Unveils Virtualization Plans: Launches Veritas Virtual Infrastructure

Date: June, 2008

Author: Bob Laliberte, Analyst and Mark Bowker, Analyst

Abstract: Symantec has integrated Citrix XenServer and Veritas Storage Foundation to create a complete server virtualization and storage management solution—Veritas Virtual Infrastructure. This marks Symantec's entrance into the server virtualization distribution market with differentiated products based on integration with its management offerings.

Introduction

Server virtualization is transforming data centers as fast as any other technology in recent years. And it has appeared amidst skyrocketing fuel prices and crippling energy shortages—leading to the perfect IT consolidation storm. Server virtualization technology can play a major role in driving up server utilization, reducing the number of physical devices required in the data center and reducing overall power and cooling needs.

Like any new technology, a period of rapid growth and implementation typically results in a series of painful lessons learned. In the rush to solve power, cooling and utilization problems, server virtualization deployments have created operational challenges that find IT groups rethinking and refining their virtualization strategies. The technology is still in its infancy, with several challenges including:

- **A lack of adequate management tools** – Like most new technologies, the level of management capabilities vary by vendor. Some of the mature providers have more refined tools, but they are mostly vendor specific. Newer entrants to the market have adopted a more open strategy and plan to deliver real heterogeneous support. Consideration needs to be given not only to heterogeneous server virtualization support, but also to the ability to manage mixed virtualized and non-virtualized environments.
- **Application performance concerns for mission critical applications** – IT shops are still testing the waters for virtualization. While it's true that customers are already deploying server virtualization in production environments—including those that support mission critical applications—these tend to be more compute intensive than I/O intensive. As virtualization is considered for I/O intensive applications, the ability to scale to meet performance needs will be important.
- **The need for high availability solutions** – While virtualization drives efficiency and consolidation, it also introduces risk. Consider five or more applications sharing the same physical server: the impact of a physical or applications would be far more devastating than a single physical server failure alone. Large organizations will require solutions that can automatically and nearly instantaneously recover from any type of failure.
- **More demand on storage** – By taking the OS and application and packaging it into a file stored on shared storage, server virtualization is driving an increase in the amount of storage that has to be managed. Already a difficult task, server virtualization drives increased complexity, especially in highly dynamic environments that need to rapidly provision new applications and its associated storage. Inflexible, monolithic storage arrays need to become more flexible to accommodate the needs of a highly virtualized environment.

Symantec, through its acquisition of Veritas, has been addressing management problems in the non-virtualized physical domain for many years. In fact, it was the first storage management company to offer support for both

server and storage virtualization in one product: Veritas CommandCentral Storage. Symantec is now taking its support for virtual environments one giant step further with the goal of making server virtualization deployments in production environments simpler, easier and faster.

Introducing the Veritas Virtual Infrastructure (VxVI) Solution

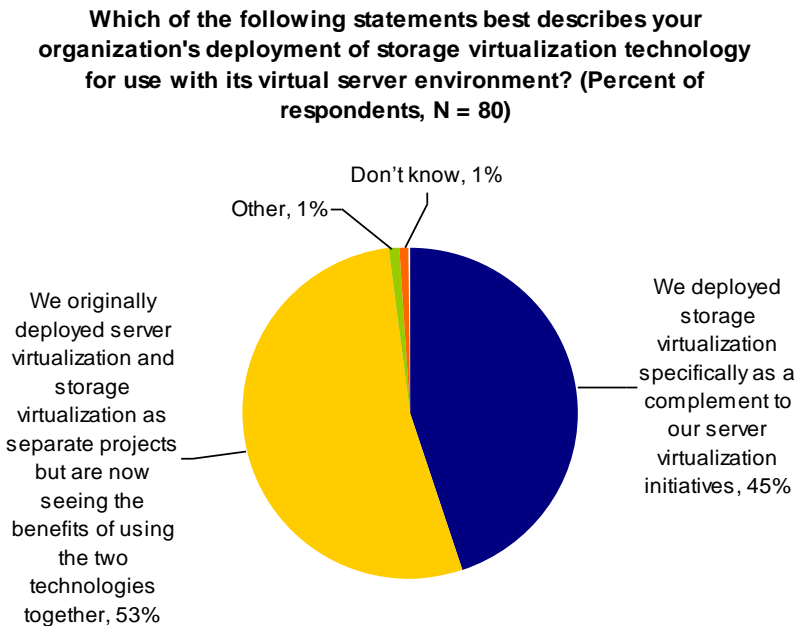
What exactly is the Veritas Virtual Infrastructure? It is a complete solution including the integration of Citrix XenServer, Veritas Storage Foundation—providing integrated centralized management and control of both the virtual server and storage environment. The combination exceeds the sum of its whole, as it is not simply another management tool, but rather a complete virtualization and management stack. The resulting architecture enables many capabilities of the physical world to be transferred to the virtual one, like dynamic multi-pathing, mirroring storage across heterogeneous storage arrays, and snapshot capabilities for virtual machines. This announcement also marks Symantec's entrance into the server virtualization distribution business. While not known for server virtualization, Symantec products have always been on the leading edge of support for server virtualization technologies. With the Citrix technology tightly integrated, Symantec will now offer a solution to manage the both the server and storage virtualization environments.

Given the challenges inherent in trying to manage virtual infrastructures, this marriage of technologies provides:

- Solid server virtualization technology that –
 - Can provision both physical storage and virtual server workloads
 - Includes XenMotion for the live migration of running virtual machines
 - Delivers rapid provisioning using “golden images” or virtual machine templates
 - Includes Windows optimized drivers for maximum performance of network and disk I/O
- Integral storage virtualization technology with –
 - Block-level storage provisioning with dynamic volume growth and shrinking
 - Support for shared boot images across multiple virtual machines
 - Snapshot technology (space optimized or full volume) to clone virtual server images
 - Advanced disk layout support and dynamic multi-pathing for SAN environments
 - Heterogeneous storage array support
- Centralized management and control that –
 - Covers virtual server management and storage management in a single console
 - Supports hundreds of virtual machine through a single console
 - Provides visibility into storage usage reporting and mapping of virtual physical disk mapping

The VxVI solution will be generally available in the fall of 2008, and ESG research demonstrates that a combination of server virtualization and storage virtualization should be an attractive package for organizations looking to implement virtualization technologies. A recent ESG global survey found that organizations deploying server virtualization are likely to deploy storage virtualization as well: Of 332 respondents who have already deployed server virtualization, 24% have also deployed storage virtualization and another 33% plan to in the next 12-24 months. Of those that had already deployed storage virtualization, 45% had specifically implemented storage virtualization to complement a server virtualization initiative and another 53% reported that while they had started as separate projects, the benefits of using the technologies together were clear.

FIGURE 1. STORAGE VIRTUALIZATION



Source: Enterprise Strategy Group, The Impact of Server Virtualization on Storage 2007

Symantec's integrated solution is aimed at simplifying the adoption of server and storage virtualization technologies. Leveraging years of data center experience, it ensures simplicity of deployment as well—with Symantec claiming that users can implement a VxVI solution in as little as 15 minutes and provision storage to a virtual machine in 3 mouse clicks. And for those existing Veritas Storage Foundation customers, the training and learning curve will be minimal.

Even more intriguing than the combination of Veritas Storage Foundation and Citrix XenServer is the possibility for further enhancements with additional Symantec products. The ability to provide integrated functionality that spans Symantec's backup (Veritas NetBackup or PureDisk), high availability (Veritas Cluster Server and Fire Drill), security and data reduction technology could be very interesting,

Incorporating these technologies could potentially create an opportunity for Symantec and Citrix to leapfrog the current market leaders and deliver industry-leading functionality.

The Bottom Line

The enterprise data center has always been highly segmented by domain or technology; in spite of this, more advanced IT shops are realizing that these divides are not conducive to higher service levels and are beginning to bridge these gaps on a project by project basis. Virtualization technologies that cover servers and storage have the potential to accelerate that change as products are more tightly integrated, VxVI being one of those. The challenge for these products is getting internal buy off and budget allocation, especially if the budget needs to come from multiple groups. However, by focusing on the collective power and cooling savings, not to mention a potential reduction in capital storage expenditures, these issues should be easily resolved.

Another obvious question is whether the market is prepared to purchase server virtualization technology from Symantec. For many years, Symantec has developed and built a strong channel. If this solution is going to be successful, distribution channels must be properly trained and educated on selling server virtualization technology and the benefits of this combined architecture. ESG expects early wins to come from existing Symantec strongholds in its Veritas installed base, but the true measure of success will be in the number of new customers they can attract to VxVI solution.

VxVI has the management and availability capabilities to help accelerate the adoption of Citrix XenServer into production environments, but it faces stiff competition in the form of incumbent VMware implementations and the Microsoft Hyper-V—currently in testing. Today, Veritas Storage Foundation will work with VMware (residing in the

guest), but it doesn't deliver the same level of functionality as when integrated with Citrix XenServer because of the fundamental architecture difference between Citrix and VMware. VxVI, given its ability to manage heterogeneous environments—both physical/virtual as well as multi-vendor—it should raise more than a few eyebrows, especially from incumbent Symantec and even Citrix customers.

Symantec is thinking along the right lines. Virtualized server and storage environments, while driving tremendous benefits, create abstracted layers of complexity that need proper management. Symantec's Veritas Data Center Software has been addressing management and high availability problems for over 15 years in the open systems space. It is a proven solution provider for heterogeneous environments, which now also include virtual and physical implementations. By integrating with Citrix XenServer, Symantec can provide a more complete solution for enhancing management while enabling the virtual data center.