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## Symantec tackles Server *and* Storage Virtualization with launch of Veritas CommandCentral Storage 5.0

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**Abstract:** The latest version of Veritas CommandCentral Storage adds support for Virtual Server and Virtual Storage environments. Symantec also enhanced the software's support of replication technologies and its ability to scale in large, complex data centers. As more and more IT shops deploy virtualization services into production environments, management tools that can provide end-to-end visibility will become requisite.

### Overview

Symantec's latest release, Veritas CommandCentral Storage version 5.0, marks the second proof point for their Storage United effort. Storage United is Symantec's vision of unifying data protection, archiving and storage and server management. NetBackup 6.5, released in June 2007, was the initiative's first proof point related to data protection. This latest release is aimed at the storage and server segment, most notably providing support for virtualized server and storage environments as well as enhanced support for data replication technologies. Symantec is also introducing the concept of a CommandCentral Family of products with 5.0 by including Process Automation Manager, released in March 2007, in the CommandCentral fold and creating CommandCentral Enterprise Reporter 5.0.

Symantec's support for virtualized environments is very timely as companies are rapidly deploying virtualization services in order to reap the benefits of consolidation, increased utilization and lower capital, power and cooling costs. With those benefits come different challenges—specifically, management challenges. While the number of physical servers may have declined, the actual number of applications remains the same—making it even more difficult to manage storage holistically due to a lack of visibility. At a time when customers struggle to provide the business with higher service levels using fewer resources, management software plays a more important role. Utilizing a single interface that has visibility into both virtualized server and storage environments can help automate processes and reduce the amount of time required to bring new applications online, make moves, adds and changes and optimize the infrastructure. Managing storage in complicated business continuity and disaster recovery (BC/DR) environments can also pose a formidable challenge, especially in heterogeneous environments. Having a single view to manage complex replication environments will not only facilitate BC/DR, but will also enable a better understanding of the storage environment and the true utilization by applications.

The new features in the Symantec Veritas CommandCentral Storage 5.0 provide storage managers with the insight required to better manage virtualized and replicated enterprise data center environments.

### Analysis

Symantec has focused its efforts on helping storage managers deliver higher levels of service to the business. These service levels are based on four basic tenants:

1. Understand your current environment: Provide complete, end-to-end visibility into your data center environment—from applications, through hosts, through connectivity and down to the storage.
2. Improve Infrastructure Utilization: Deliver the capability to optimize utilization and detailed reporting metrics over all tiers of storage.
3. Improve Operations: Provide the ability to automate processes based on policies as well as provide a consistent interface for manual operations, such as provisioning.

4. Deliver Storage as a Service: Ensure that IT can deliver higher service levels to the business and provide enterprise level reporting and chargeback capabilities. This is necessary to bridge the gap between IT organizations and the business

Essentially, Symantec looks at CommandCentral as Storage Service Management software. The new features in 5.0 include:

#### **Virtualization Support**

- VMware server virtualization: 5.0 will discover both the virtual machine and ESX server as well as the path all the way down to the storage. This will include the capability to report on the amount of capacity allocated, how much has been claimed and what percentage is used by the virtual machine. This will play an important role for customers deploying virtualization in production environments who need the ability to manage the environment from hosts to storage.
- IBM San Volume Controller (SVC) support: 5.0 has the ability to understand IBM's network based storage virtualization service with heterogeneous storage arrays. This includes discovery of SVC LUNs and their backend arrays, providing mapping of the LUNs to the disks. Prior to this release, customers were limited to management solutions from IBM only. Now, IBM SVC customers will have choice in management for these virtualized storage environments.
- HDS TagmaStore support: 5.0 provides the visibility to view a TagmaStore from the front end through to the backend arrays, down to the actual disk. Providing end- to-end visibility for both connectivity mapping as well as tiered storage analysis.

#### **Replication Support**

CommandCentral Storage 4.3 already supported many configurations including EMC's TimeFinder and NetApp FlexVols (software that enables point in time copies of LUNS). In this version, support has been added for:

- EMC Symmetrix Remote Data Facility SRDF: 5.0 supports both the source and target information. This comprehensive support also covers uni- or bi-directional SRDF and STAR. Even complex, multi-site replication environments can be discovered and reported on. Support for one of the most popular array based replication technologies is critical for most enterprise accounts.
- EMC Clariion: Support is extended to include SnapShot, SnapView and MirrowView. Metrics collected include source and target information like status, state and capacity.
- NetApp SnapMirror: This version supports NetApp's replication software. It provides information on source and target status such as state and size. For those enterprises leveraging SnapMirror for multi-site data distribution, the ability to track this information from a single console should reduce the complexity of managing these environments. This includes support for synch, semi-synch and asynchronous modes. It even shows the time to synch when using the semi-synch or asynchronous modes.
- HDS ShadowImage support: Point in time copies are tied back to the host and eventually, the applications. This enables more effective capacity tracking, providing better visibility when planning for new applications or additional storage.

The ability to track copies of replicated data—whether it is point in time or mirrored copy—is important for capacity planning purposes. Understanding how much actual storage is allocated to an application (primary storage, plus point in time copies, plus mirrored storage) enables storage managers to make intelligent decisions when making changes or adding new applications.

#### **Enhanced Reporting Capabilities**

Symantec will launch CommandCentral Enterprise Reporter 5.0 in September 2007. This will be a fully integrated reporting software package designed to bring business intelligence to the storage domain and enable IT to offer Storage as a Service, essentially aligning IT with the business. Specifically, Enterprise Reporter will enable:

- **Global View of the Enterprise Storage Environment:** This capability can link together metrics from multiple data centers and consolidate reporting for the entire enterprise. This is an important addition for any company with multiple data centers, thereby providing management and finance with an overall view of the storage infrastructure.
- **Customized reporting capabilities:** Enterprise reporter leverages drag and drop graphical user interfaces (GUIs) to simplify the generation of personalized reports. It also provides query capability to search for specific details. This feature is critical because while the ability to collect vital metrics is very important, it is even more important to be able to retrieve that information quickly and easily in a format that matches your business process.
- **Derive business insight from customized, enterprise wide reporting capability.** Enterprise reporter allows information to be segmented by business unit or geography, providing the capability to determine efficiencies and risk for any segment. For example, one could easily determine the storage consumption rate across all data centers or, determine the amount of Tier 1, or a specific vendor's, storage in the global enterprise. This kind of flexibility enables an enterprise to develop Key Performance Indicators from storage metrics to track the improved service levels on a global level.

#### **Other Enhancements Worthy of Note**

- **Increased Scalability:** This version now has the capability to scale to meet the needs of virtually any enterprise. With a single management server, CommandCentral Storage 5.0 now can handle:
  - 3,000 hosts
  - 6 PB of storage
  - 12,000 switch ports
- **Broader Array Support:** Symantec now extends support for 3PAR, Fujitsu, HP EVA and IBM DS4x00 arrays.
- **NetApp iSCSI device support:** This feature ties in very nicely with server virtualization support as many mid-tier company leverage iSCSI to deploy networked storage to support their virtualization efforts.
- **SMI-s support for 1.1:** This level of support is table stakes for software providers looking to deliver heterogeneous support. However, it is only the beginning. To provide meaningful and detailed support, there needs to be a dual strategy that combines vendor APIs and SMI-S—at least until SMI-S can deliver all the pertinent information and all the vendors comply with this specification. That could still be a ways off, so the dual strategy is the best way deliver a solution that covers a heterogeneous environment.

#### **Accelerate Time to Value**

Symantec will now offer a professional services engagement, leveraging CommandCentral Storage to assess a company's storage environment and provide a detailed report outlining areas for improvement. The service, named the Storage Assessment Program, is designed to quickly increase storage utilization rates and identify wasted storage.

#### **The Bottom Line**

The enhancements to Symantec's Veritas CommandCentral Storage 5.0 should be very welcome to those customers deploying server or storage virtualization in their data centers. Specifically, IBM SVC users now have an alternative to manage their storage virtualization environment and users with HDS and IBM can benefit from a single interface to manage both environments. VMware customers now have the ability to link virtual server environments to heterogeneous storage environments from one of the most trusted names in storage management and data protection.

Symantec CommandCentral is among the first few Storage Resource Management software solutions that can provide support for virtualized environments. Given the rapid adoption of virtualization services, this places Symantec in a good position to capitalize on an early mover advantage. Certainly, existing CommandCentral customers will look to upgrade and Symantec could capture some market share from IBM

and HDS shops looking to provide a unified view of their virtualization environments (Server and Storage). This will not be a walk down Easy Street. EMC has already announced support for VMware and we expect that there will be other SRM vendors adding support for virtual servers. However, a window of opportunity still remains for early movers.

Symantec's vision for managing the data center continues to be an impressive one, as they develop product standards while increasing their level of heterogeneous support. We expect them to continue to develop innovative products based on shared platforms and resources in an effort to tie together heterogeneous data center environments under a single interface. This will not happen overnight, but they have already demonstrated their ability to unify certain segments—like data protection—and are improving the unification of servers and storage with this release of CommandCentral 5.0.