

I'm Paula Phipps, with Sun Microsystems. I'm here to talk to you today about Sun storage virtualization strategy.

Slide - Virtualization is Everywhere

Sun storage virtualization strategy is designed to lower cost, and mitigate risks while maintaining, and often enhancing, application service levels. Sun realizes that the data center is heterogeneous and it's filled with a plethora of storage devices and softwares to solve a multitude of application designs.

Sun virtualization solutions remove the physical limitations, including storage hardware type, proximity, and mass millions of lines of software code, delivering a single storage image.

Slide - Storage Challenges

These are the storage challenges faced by data center managers everywhere. Each of these storage challenges can be more easily solved through the use of storage virtualization. Additionally, storage virtualization can allow these challenges to be solved at a lower cost point, and with less risk.

Slide - Storage Virtualization and Pooling

I mentioned presenting a single storage image as the key to storage virtualization - so, how is that accomplished? If you'll notice on this diagram, starting from the lower band - the lowest band - these are the storage modules that are found in the physical infrastructure. These comprise the disk capacity that drives the storage solution. Above that are the RAD engines that deliver the hardware protection levels, as well as the performance characteristics for the application workload.

The next band begins to describe the virtualization concept that is applied. Virtual disks are made up using a virtualization engine from the physical assets, without the requirement of physical proximity of either disk, controllers or connectivity. Once the virtual disks are created, then storage pools are aggregated and these have profiles attached to them that are tailored to the application workload, whether that be an ERP system or an online transaction processing-type workload. Those pools will have a profile around them that is tailored. Not only are the profiles tailored to that application, but those resources are completely isolated from one another with minimal sharing.

From there, volumes are carved from those pools; and then, as with any application storage, it's delivered to the host through the initiators.

Slide - Heterogeneous Data Migration - Deliver Business Continuity

Heterogeneous data migration is a very important part of the value that's delivered with storage virtualization. This enables the data administrator to be much more strategic in their approach to storage. It enables them to, for example, look at leasing agreements, or look at warranty schedules, and decide strategically when the right time is to move data to newer storage, or storage with greater functionality.

Additionally, what heterogeneous data migration enables is for storage of different types, and from Sun and other vendors, to be virtualized and then to be seamlessly moved from different cost points to better align data type with the value to the business.

Protecting data is easier and much more predictable with storage virtualization technology. Local mirrors can be created across heterogeneous storage. Storage that was formerly siloed, and where data protection levels were variable and not necessarily adequate for that level of storage, can now be made consistent and appropriate to the level of data protection for the business.

Snapshots allow for the eventuality of data corruption, and the possibility of virus or operator errors, providing a continuous level of protection to these same heterogeneous devices in the environment, and also applying a consistent level of protection.

Slide - Heterogeneous Data Services - Deliver Disaster Recovery

The same heterogeneous data protection that is afforded locally through storage virtualization, can be accomplished a thousand miles away at a secondary site; and therefore, disaster recovery is made easier and more effective.

Slide - Heterogeneous Data Services - Deliver Enhanced Backup

Backup operations are also greatly enhanced through storage virtualization. Typically, with any backup operation, a performance hit is taken on the primary application. It's up to now been unavoidable; not so with storage virtualization. Through the ability to take continuous snapshots and also to create an interim layer of faster disk storage where the data can be held, and then at a time when it's convenient to the operator, that data can be moved to another media, such as tape for long term backup storage.

Slide - Sun's Storage Virtualization Solutions - Deliver Enhanced Backup

Sun storage virtualization solutions today are the Sun StorageTek 6900 and 9900 systems. These are complete storage systems with a broad set of data protection software, complete with storage capacity, connectivity and performance, and virtualization technology, delivering greater asset utilization, storage that serves multiple applications simultaneously, and management from a single pane.

Thank you very much for your time today. This is Paula Phipps.