



# Hitachi extends thin provisioning to externally virtualized storage

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***Hitachi announced the availability and capability of its Dynamic Provisioning software to support externally virtualized heterogeneous arrays, further expanding its common storage services portfolio enabled through its Universal Storage Platforms (USP) V and VM. Dynamic provisioning or thin provisioning with wide disk striping across multiple logical storage pools allows the virtualized physical storage to be allocated only when data is written, not when the application is first configured and physical storage assets reserved. Through virtualization and thin provisioning functionality, the physical allocations become soft and true pooling with allocation on write capability can be accomplished within a tier storage environment. Moreover, by extending this functionality to externally virtualized storage, enhanced storage utilization rates can be achieved with all virtualized storage assets.***

## Announcement highlights

In addition to announcing the support of thin provisioning for externally virtualized arrays, Hitachi announced native internal support for 750GB SATA II drives within both USP V and VM systems, expanding their intelligent tiered storage capabilities. Prior to this announcement, SATA capacity solutions were only supported with externally attached arrays. In addition, the USP V can now achieve more than 4 million peak, cached system IOPS, an improvement of more than 14% over the announced performance, and more than 60% of the original USP. Moreover, the Hitachi USP V and VM systems were the first to be supported by VMware ESX Server for virtualized externally attached arrays with non-disruptive application data mobility between servers and storage tiers.

## Ovum view

With over 7,300 of its intelligent virtual controllers shipped, Hitachi continues to benefit from the key data center requirement for optimized storage environments. Its robust controller-based storage virtualization solutions continue to address the requirement for common virtualized storage solutions and management that can



leverage heterogeneous storage assets. Extending thin provisioning to externally attached heterogeneous storage arrays further expands the benefits of virtualization beyond just data movement/migrations. While all new storage functionality goes through traditional deployment curves including a functionality and support evolution, Hitachi is leading the charge for further adoption of thin provisioning and its delivered higher utilization benefits. We believe thin provisioning will be a major IT initiative in 2008, particularly within enterprise data centers and Hitachi accounts.

Moreover, as data center environmental issues continue to be a cause for concern, the ability to virtualize storage assets and enable thin provisioning to achieve higher utilization rates (70–80%) of existing storage assets enables flexible and cost-effective options to address power, cooling and space issues. Consolidation and optimization efforts are also enhanced, since thin provisioning can extend the asset life of older, externally attached arrays by dynamically including them within tiered storage implementations with improve utilization levels.

The inclusion of native support for SATA 750GB drives internally within the USP V and USP VM also enhances the environmental footprint of the array and provides additional flexibility to the storage environment.

We continue to believe that the Hitachi controller-based virtualization solution represents the most robust and flexible approach for enterprise-class storage virtualization. The virtualization-enabled common functionality (data mobility, migration, replication, thin provisioning, and heterogeneous array attachment), with consistent management, continues to set the pace for enterprise storage virtualization.



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