Economic Impact of Virtualization at Overstock.com

A Hitachi Data Systems
Storage Economics Analysis
Reducing Total Cost of Ownership at Overstock.com

Vision or Issue

- Expand online retail business: Drive company growth and profitability while effectively managing risk
- Improve service levels and data access
- Manage 40% data growth rate as efficiently and cost effectively as possible
- Simplify administration and reduce both capital and operational expenditures
- Meet new business conditions and reduce total cost of ownership (TCO)

Corporate Strategy

- Simplify storage environment
- Improve storage utilization
- Reduce risks of data migration
- Reduce operational costs and risks

Hitachi Data Systems reduced the unit cost of storage by 43% in Year 1 and by an additional 37% in Year 2
Reducing Total Cost of Ownership at Overstock.com

Challenges
- Surging volume and complexity of storage environment
- New mandatory regulations for data protection and retention
- Increasing requirements for availability, performance and scalability
- Underutilized storage assets

Solution Initiative
- Implement operationally efficient architectures to reduce cost of growth:
  - A wholly virtualized, multitiered storage solution based on Hitachi Universal Storage Platform® V systems
- Reduce overall storage “appetite” by reclaiming unused capacity with Hitachi Dynamic Provisioning

New architecture has dramatically cut CAPEX spending
Simplification Through Virtualization and Tiering

- Consolidate internal and external and NAS and SAN into a single pool of storage
- Manage and monitor with one common interface
- Classify data according to business needs
- Increase storage utilization
- Share resources

Optimization of Existing Infrastructure and Simplification of Data Migration

- Seamlessly migrate data to higher or lower tiers
- Reduce application downtime and improve availability
- Optimize provision for planned or unplanned growth
- Reduce physical disk requirements

Hitachi Storage Virtualization Benefits at Overstock:

- Scaled up to 32 petabytes of managed storage capacity
- Reduced technology refresh time by up to 90%
- Reduced provisioning tasks by up to 80%
- Initial reclamation yielded savings of approximately 50%
- Improved utilization rate to about 80%
Reduction of Capital Expenditures

- Hardware and software costs
  - Reclaim unused capacity
  - Deferral of new storage costs
  - Reduce cost of growth with dynamic tiers

- Maintenance costs
  - Hardware
  - Software

Reduction of Operational Costs

- Reduce administration costs
  - Storage management labor
  - Migration costs

- Environmental savings
  - Floor space
  - Power cooling
“Managing all the storage assets as a single, virtualized, dynamically provisioned storage pool improves operational efficiencies. Provisioning tasks which typically took two to three hours the traditional way now take less than 30 minutes with Hitachi Dynamic Provisioning.”

“Hitachi Data Systems has quickly simplified the process of nondisruptively provisioning storage. With Hitachi virtualization technologies, we've seen storage capacity savings of 50 percent on some arrays, now provision storage in 25 percent of the time, and have increased utilization rates by over 30 percent. We've reduced data migration related downtime from several hours to less than 30 minutes. Overall, by using Hitachi virtualization, dynamic provisioning and tiered storage, we've reduced our capital and operating costs for an improved return on our storage investment”.

“We depend heavily on Hitachi Data Systems to reliably run our business and scale as we grow… The Hitachi platform allows us to seamlessly virtualize and manage all the storage as one logical array. This architecture simplifies management, allows us to scale more cost effectively and gives us the flexibility that we need to keep up with the demands of the business.”

“By virtualizing external storage assets Overstock.com was able to simplify the entire technology refresh process. Migrations that typically took upwards of five hours took less than 30 minutes with the virtualization solutions”

“The business impact of having a tool like Hitachi Tiered Storage Manager has been significant. With the implementation of Hitachi Tiered Storage Manager and Hitachi Tuning Manager, Overstock.com has been able to monitor performance of key applications and seamlessly migrate data to higher or lower tiers based upon business needs. This would have been impossible in previous architectures,”