

# Top 10 Reasons To Base Your VMware Implementation on Hitachi Data Systems Infrastructure

## 1. Hitachi products are architected for virtualization

Providing analogous if not exactly similar capabilities and benefits, the Hitachi Universal Storage Platform™ Virtual Storage Machine™ is equal in concept to a server-based VMware virtual machine (VM). Virtual Storage Machines make it appear to applications and to VMware guests that they have dedicated storage capacities for their specific needs. Just as VMware's products provide fine-grained control over server resources within and among server VMs, a Virtual Storage Machine allows either sharing or the dedication of physical ports, cache, and storage.

## 2. Virtualized Third party storage

The Hitachi Universal Storage Platform can connect (or externalize) storage systems from a wide range of vendors as part of one or more storage pools, yet completely hide the complexity of the infrastructure from server applications and inherently from the VMware ESX server. Hitachi virtualization broadens the virtualized scope of the joint VMware/Hitachi Services Oriented Data Center solution by providing companies the flexibility to dynamically provision storage to VMware guests from a vast heterogeneous multitiered storage pool, a capability that all other vendors cannot approach from a scalability perspective.

## 3. Thin provisioning

In a Hitachi virtualized storage environment, all Hitachi controller-based storage functions are mapped across all virtualized or externalized capacities, elevating all participating systems to enterprise-level capability. The most recent example of this is Hitachi Dynamic Provisioning software. Soon after its announcement, Hitachi Dynamic Provisioning software was qualified for external storage. This feature further enhances and differentiates the overall VMware/Hitachi joint solution by providing companies with the ability to save costs, both from a storage utilization perspective and also from a "green" perspective, by not having to initially allocate the full amount of "hard" capacity for an application's or guest's storage requirements.

## 4. Nondisruptive, policy-based data movement

Hitachi Tiered Storage Manager software moves data between tiers without disrupting production environments, applications or VMware guests. This feature is especially useful when it comes to migrating volumes of VMware guests between storage tiers.

## 5. Dynamic Tiered Storage Management

Hitachi products have a common look and feel, a feature that is of high customer value per IDC (as stated by John McArthur, Group Vice President, Storage Research). Hitachi Data Systems is perhaps unique in that this approach also works well up and down all storage tiers, including virtualized tiers.



## 6. **Boot from SAN**

Hitachi Data Systems is differentiated by its boot from SAN capabilities. As VMware's mobility is maximized by the ability to boot a device independent of its hard drive, this is a key differentiator in VMware environments.

## 7. **Leverage Mixed Host Environments**

Hitachi virtualization technology is unique in that it can leverage both Open and Mainframe Systems, either standalone or mixed. (EMC and IBM virtualization only support Open Systems.)

## 8. **Virtualize SAN, NAS and even DAS**

Hitachi virtualization technology enables even different networking options as compared to competitors that largely support just SAN. By providing consistent manageability across and among these connection types, Hitachi Data Systems provides unparalleled flexibility for VMware since the VM and the application can be matched to the optimum storage connection.

## 9. **Robust chargeback**

Hitachi offers the most robust chargeback capabilities on the market. These capabilities enable our customers to bill departments not only for the resources utilized but also on the relative priority of those resources.

## 10. **Administration matched to tiers**

The Hitachi Universal Storage Platform is unique in that it supports both central and departmental administrators. Department administrators can be linked to a particular Virtual Storage Machine or tier, thereby driving a wide range of advantages, including security, matching of personnel to workload and more.

## **Hitachi Data Systems Corporation**

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