

The United States Storage Market: A Perspective from Hitachi Data Systems Corporation

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OVERVIEW: According to International Data Corporation (IDC), the United States disk storage systems market represents 39% of the worldwide market. The disk storage systems market in the US grew 5% in 2004 to US\$8.8 billion, while terabytes shipped grew 55% to 534,627. This market data clearly shows that the purchase of storage capacity continues to grow at a very fast pace. The factors driving the purchase of data storage solutions are customer requirements in three areas: (1) regulatory compliance and data lifecycle management, (2) accelerating capacity growth and storage consolidation, and (3) the need for enhanced storage area management tools. Hitachi Data Systems Corporation is well positioned to meet customer needs in these areas through sophisticated solutions that combine innovative Hitachi storage systems and software, professional services, and industry partnerships.

REGULATORY COMPLIANCE AND DATA LIFECYCLE MANAGEMENT

U.S. companies face growing corporate governance and regulatory requirement mandates. U.S. Federal government laws such as HIPAA (Health Insurance Portability and Accountability Act) and Sarbanes-Oxley, and industry regulations such as Basel II, are mandating the long-term retention of business documents and communications, including e-mail and instant messaging. While the focus so far has been on large enterprises, small- and medium-sized businesses are now feeling the impact as well. In addition, these regulations also require that companies take active steps to protect their data against system failures. This includes long-distance remote replication to ensure business continuity and disaster recovery even in wide area outages.

Indeed, in an October 2004 research report titled *Trends 2005: More Data Capacity, Smaller Size*, Forrester Research noted “compliance laws and regulations rule the data world.” In the report, Forrester explains that compliance will force IT managers to “either migrate data forward as the underlying technology evolves” or “build Smithsonian-like museums that keep every combination of hardware and software alive so old data can be resuscitated to demonstrate regulatory adherence.”

Hitachi Data Systems Corporation partnered with industry leader IXOS SOFTWARE AG/Open Text

Corporation to provide e-mail archiving and compliance solutions. These solutions combine Hitachi storage systems with IXOS SOFTWARE AG/Open Text software and professional services from Hitachi Data Systems Corporation. Hitachi Data Systems Corporation and IXOS SOFTWARE AG/Open Text Corporation are also working together to provide a comprehensive set of archival and compliance solutions for enterprise applications, which will let customers store, manage, retrieve, and archive documents from SAP* systems.

These solutions fall into the broad category of DLM (data lifecycle management). The introduction of the Hitachi TagmaStore Universal Storage Platform with its ability to virtualize attached storage and to create logical partitions gives Hitachi Data Systems Corporation a competitive advantage in enabling customers to easily deploy and manage DLM environments. In addition, customers can use Hitachi Volume Migration software to automate the movement of data from one tier of storage to another as required. Hitachi TrueCopy Remote Replication and Hitachi Universal Replicator software in the TagmaStore Universal Storage Platform position it as a competitively superior solution to address business continuity/disaster recovery in multi-vendor storage environments. Furthermore, the Universal Replicator's

* SAP is a registered trademark or a trademark of SAP AG in Germany and in other countries.

journaling approach leaves cache resources available for maximum application performance and significantly lowers transmission costs.

ACCELERATING CAPACITY GROWTH AND STORAGE CONSOLIDATION

International Data Corporation Japan (IDC) predicts that from 2003 through 2008 data storage in the U.S. will experience a CAGR (compound annual growth rate) of 50% in terms of terabytes shipped. This places efficient management of storage growth through such practices as consolidation high on the list of drivers for storage purchases, as customers attempt to improve overall ROI (return on investment). Storage consolidation has been discussed actively for several years now. However, the introduction of the TagmaStore Universal Storage Platform, a highly scalable storage system featuring controller-based virtualization, positions Hitachi Data Systems Corporation as the leading vendor for storage consolidation. With the TagmaStore Universal Storage Platform, Hitachi offers the only highly scalable and flexible consolidation platform that can connect and virtualize Hitachi and non-Hitachi storages into a single manageable storage pool.

In a September 2004 report, *HDS Universal Storage Platform Blows Away the Appliances*, Data Mobility Group pointed out some of the advantages that the TagmaStore Universal Storage Platform brings to customers by offering consolidation through controller based virtualization, "Creating a highly scalable storage environment that supports consolidation of both mainframe and open systems via a virtualized data store allows storage administrators to apply economies of scale to hardware costs, and maintain overall storage management costs at more predictable and affordable levels."

Taking this flexibility into consideration, research and consulting group ITCentrix stated that with the TagmaStore Universal Storage Platform, customers will reduce TCO (total cost of ownership) by as much as 40% and achieve an Internal Rate of Return as high as 160% (in a three year time frame) on some large configurations. The fact that this type of TCO advantage can be achieved both by the large enterprise customer consolidating high end storage systems, and the medium-sized company consolidating disparate pools of midrange storage further strengthens Hitachi Data Systems Corporation's position as the most qualified storage vendor of solutions that help customers increase ROI.

The growth of Hitachi Data Systems Corporation's average initial terabyte shipment in the high end and the midrange is further proof that we are the leader in consolidation solutions. An average high end configuration upon initial shipment for the Lightning line has increased from 8 Tbytes to approximately 20 Tbytes in two years, a 150% increase. The average initial configuration for our Thunder 9500V Series midrange product line is now approximately 5 Tbytes and growing at a rate of more than 200% per year, outpacing midrange market growth estimates of 70% per year (IDC).

This phenomenal capacity growth is the result of our customers' successful implementing of a midrange consolidation strategy with products such as the Thunder 9585V that have greater capacity than any other modular storage product available in the market. Today's data explosion creates demand for storage consolidation and scalable solutions that enable customers to better manage data growth. The TagmaStore Universal Storage Platform and Hitachi Data Systems Corporation's suite of hardware and software products are the most effective solutions for consolidation on the storage market today.

ENHANCED STORAGE AREA MANAGEMENT TOOLS

Ultimately, these first two drivers of customer storage purchases lead to a third, equally important criterion taken into consideration by the storage buyer. That is, effective Storage Area Management software tools can further enhance the value of the compliance solutions and consolidation requirements. Forrester Research, Inc. noted in *Trends 2005: More Data Capacity, Smaller Size*, "To a large extent, storage and data management focus has turned from good business practice to legal mandate, but the good news is that enterprises are taking a business wide perspective rather than simply resolving local backup issues."

HiCommand Storage Services Manager is Hitachi Data Systems Corporation's main console for heterogeneous SAN (storage area network) management and SRM (storage resource management). It delivers the integrated capabilities companies need to ensure application availability and performance, improve IT efficiency, maximize storage resource utilization, and reduce operational and capital costs. Furthermore, Storage Services Manager increases the ability to realize a TCO advantage by providing capacity management, performance management, and optimization from a single

management console.

The TagmaStore Universal Storage Platform's virtualization of external storage into a unified pool in combination with the HiCommand storage management software suite allows us to truly deliver the "single pane of glass" control that customers are looking for.

CONCLUSIONS

Hitachi Data Systems Corporation is ideally positioned to be the leading supplier of solutions that meet the three drivers of storage purchases for IT managers in the U.S.:

- (1) regulatory compliance and data lifecycle management solutions,
- (2) unmatched scalability and consolidation, and
- (3) an excellent suite of Storage Area Management software.

The fact that these factors are all migrating downstream, from the U.S. enterprise customer to the small- to medium-sized business, creates an even greater opportunity. The TagmaStore Universal Storage

Platform, combined with the HiCommand Storage Area Management software will enable Hitachi Data Systems Corporation to increase market share in the United States by aggressively matching customers' top three buying criteria. Our ability to deliver on these customer demands is enhanced by our Global Solution Services offerings, consistently ranked number one (FIND/SVP, 2004).

Built on the industry's most dependable and highest performing storage products, Hitachi Data Systems Corporation is leading the way with a suite of software and solutions which solve U.S. customers' most pressing concerns, from the high end of the market, to the small- and medium-sized business.

ABOUT THE AUTHOR



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