Manufacturer transforms IT management with HP ILM strategy

Advance replaces EMC with HP StorageWorks to enhance agility, self-sufficiency

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– Julius Tomei, Director of Information Technology, Advance

Business need:
Today's manufacturers increasingly rely on Enterprise Resource Planning (ERP) and other major information-technology solutions to improve operational efficiency and reduce costs. When Advance, a leading maker of lighting components, decided to upgrade its suite of SAP R/3 Enterprise ERP solutions in 2004, the company took the opportunity to reengineer its storage management infrastructure to provide greater business agility and IT efficiency.

Solution overview:
Advance improved storage management self-sufficiency, business continuity preparedness, data availability, infrastructure standardization, and overall IT efficiency. The company achieved these goals with a combination of HP solutions, including the StorageWorks XP1024 storage array, StorageWorks E-Series tape library, StorageWorks Business Copy XP, OpenView Storage Data Protector, BladeSystem servers, and HP Business Continuity Services.

ADVANCE

An enlightened view of IT management pays off
"I have to look at the best ways to deliver the services of IT to our business in the most cost-effective way possible," explains Director of Information Technology Julius Tomei, Advance. "I have to balance the need for high availability of our critical ERP systems with the costs of providing online access to large amounts of data. Does all of our data have to be online at all times? Absolutely not."

Illinois-based Advance, a leader in the lighting industry, first implemented SAP R/3 ERP solutions in 1999 to gain greater control over supply chain management, shop floor scheduling, and coordination of its 17 locations in North America, Europe, and Asia. The firm employs more than 6,000 worldwide. The introduction of SAP ERP solutions at Advance also yielded the company's first storage area network (SAN) and a new focus on managing the company's rapidly growing data-storage needs.

As the company found new ways to use its new SAP ERP solutions to streamline operations and achieve just-in-time production and deliveries, its data warehouse and other SAP-related databases continued to grow and consume valuable space in the firm's EMC-based SAN. SAN management became an increasingly difficult and costly endeavor. "Our first SAN was not as easy to manage as we would have liked," Tomei recalls. "We had to rely on the SAN vendor for configuration tuning and expansion. When we decided to upgrade our SAP solution in 2004, we chose to also look at new storage alternatives – including solutions from HP and others."

According to Tomei, the HP StorageWorks XP1024 storage array – in combination with StorageWorks and HP OpenView software solutions – offered his IT organization a higher degree of self-sufficiency and cost-effective operations. "With every upgrade we deploy, we

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move toward a higher level of IT automation," says Tomei. "When it came time to transition to a new version of SAP, we decided to update all of our critical storage and server systems. We chose the HP StorageWorks XP1024 array as the cornerstone of our SAN environment because it offered us the centralized management capabilities and flexibility we needed."

Lightning-fast storage management

The modular, flexible architecture of the StorageWorks XP1024 combined with StorageWorks Command View XP Web-based management software gives Tomei and his staff a common user interface – and total control over storage monitoring and configuration. "With our previous SAN from EMC, it used to take two days or more to make changes in the storage environment and we needed help from the vendor," Tomei notes. "With our HP SAN, we can make similar changes in less than an hour and do it ourselves. That's a huge advantage – one that helps us meet our goals for high availability, flexibility, and cost-effective growth on demand."

Tomei is a strong advocate of the HP Adaptive Enterprise model and the principles of Information Lifecycle Management. "We don't call it ILM, but we use tools and business rules to track and manage the age and utility of our data resources," Tomei explains. "We don't just store it and forget it. We have too much data coming in to sit back and let it grow on its own. We use HP OpenView Storage Area Manager, StorageWorks Command View XP, and HP Systems Insight Manager to monitor the storage usage in our SAN and across the enterprise."

Advance also uses the IXOS document-management suite to monitor SAP-specific data. Approximately once a month, the company uses IXOS and HP OpenView Storage Data Protector to offload a portion of the SAP data stored on the StorageWorks XP1024 SAN to near-line storage on a StorageWorks 1200mx Optical Jukebox. Later, Tomei's team uses the same tools to move data from the jukebox to archival storage on an HP StorageWorks ESL9322L1 tape library.

Lightening the data load: When slow growth is preferable

"We are able to reclaim more than 40 percent of our SAN storage annually using these HP StorageWorks solutions," Tomei emphasizes. "We're not eliminating growth in our SAN, but we are slowing it dramatically. That saves us money in disk that we don't have to purchase, saves on licensing costs, keeps labor costs low, and enables our databases to perform at a high level. This ability, which is tied to our HP SAN environment, is a major reason we are continually looking for ways to consolidate our critical applications to the SAN."

The StorageWorks XP1024 SAN at Advance primarily supports SAP-related applications running on the firm's HP 9000 rp7410 and rp8400 servers under the HP-UX 11i operating system. In late 2004, the firm also began using the SAN to support HP BladeSystem servers in an effort to consolidate some applications that formerly ran on older ProLiant servers or in remote factories and offices.

The BladeSystem servers run the Citrix MetaFrame Presentation Server to support thin clients located at remote facilities. "We are conducting a pilot rollout right now of a critical shop floor application that is currently running at many of our factories," Tomei explains. "Our plan is to eliminate the servers that we have running at those factories and centralize the management of the applications here at our main data center. This consolidation will improve the reliability and management of these systems. We don't even have IT staff at most of those remote factories, so this will greatly enhance our ability to provide improved service and data backup capabilities."

HP Adaptive Enterprise model: The light at the end of the tunnel

Going forward, Tomei plans to replace most of his traditional rack-mounted servers with HP BladeSystem servers. Additionally, Advance plans to use VMware virtualization software on its HP BladeSystem servers to increase application density and accelerate its consolidation efforts.

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According to Tomei, Advance intends to implement a second HP SAN soon to support the company's applications running under the Microsoft® Windows® operating system. An HP StorageWorks XP512 storage array, which the firm is transferring from a sister site, will anchor the second SAN. Storage consolidation on HP SAN systems is a key component in Advance's business continuity strategy. The firm uses HP Business Continuity Services for planning, testing, and recovery-site preparedness.

"The HP Adaptive Enterprise model is all about enabling us to be more agile and adapt to change," Tomei concludes. "Since we first brought in SAP and HP systems in 1999, we have pushed hard to gain IT efficiency and facilitate business growth. Our success is thanks in large part to our HP solutions. In fact, we have been able to reduce IT staffing by 15 percent and cut overall IT spending by about 50 percent since 1999."

About Advance

Advance (www.advancetransformer.com), has been at the forefront of the lighting industry for over 60 years and is a leading manufacturer of ballasts and drivers for fluorescent, HID, and LED lamps in North America. Advance has built a reputation for excellence based on its broad line of reliable and high-quality products, extensive technical expertise, superior customer service and logistics, long-standing industry partnerships, and demonstrated leadership and proactivity within the lighting and electrical products industries.

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At a glance

Hardware

- HP StorageWorks XP1024 Disk Array with 12 TB
- HP StorageWorks XP512 Disk Array (planned) with 3 TB
- HP StorageWorks ESL9322L1 E-Series tape library with Ultrium drives
- HP StorageWorks ESL9322 tape library with DLT drives
- HP StorageWorks 1200mx Optical Jukebox
- 8 HP BladeSystem BL20p server blades
- 10 additional HP servers running HP-UX 11i:
  - 3 model N4000s
  - 3 model rp8400s
  - 4 model rp7410s
- 100+ HP ProLiant servers – models DL360 and DL380
- 1200 HP Compaq Deskpro desktop systems
- 200 HP Compaq Armada notebook systems

Software:

- HP OpenView Storage Area Manager
- HP StorageWorks Command View XP
- HP OpenView Storage Data Protector
- HP-UX 11i operating system
- HP Systems Insight Manager
- SAP R/3 Enterprise 4.7 solution
- Oracle®9*i* database
- Citrix MetaFrame Presentation Server from Citrix Systems Inc.
- VMware ESX Server from VMware Inc.
- IXOS document management and data archiving from IXOS Software AG
- Microsoft Exchange Server 2003
- Microsoft SQL Server 2000
- Microsoft Windows Server 2003

HP Services:

- HP Business Continuity Services for analysis, design, and planning
- HP Business Recovery Services, including testing, recovery site, and remote recovery capabilities
- Ongoing service and support

Challenges

- Manage ever-increasing data growth with consistent ILM strategy
- Continue storage consolidation on SAN architecture
- Achieve IT efficiency through standardized single-vendor infrastructure
- Meet business goals with minimal increase in IT costs
- Attain utility model reliability and availability in IT operations

Solution

- Replaced EMC SAN with HP SAN to achieve self-sufficiency and agility
- Replaced aging tape libraries with high-performance HP StorageWorks enterprise tape library
- Consolidated and virtualized IT with HP BladeSystem, HP-UX, and StorageWorks solutions

Results

- Increased IT agility in meeting business needs
- Accelerated move from direct-attached storage to SAN architecture
- Reduced IT costs by nearly 50 percent in five years, including 15 percent staff reduction
- Amplified efficiency through IT consolidation and virtualization
- Enhanced data security and business continuity preparedness
- Improved ability to easily accommodate new applications and processes
- Cut time required for backups by 50 percent for Windows applications and 25 percent for UNIX systems
- Maintaining streamlined SAP database performance through ILM strategy

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