HP SAN plays leading role in IT overhaul

Screen Actors Guild – Producers Pension and Health Plans

"There are so many advantages to having one, powerful vendor like HP that can integrate all our solutions into a cohesive, flexible infrastructure."

- Chief Information Officer Nader Karimi, SAG Producers Pension and Health Plans

SAG-PPHP selected HP over EMC, Sun/Hitachi, and IBM because HP was price competitive, offered superior technology, and could provide a complete solution to eliminate the danger of finger pointing between vendors. The HP StorageWorks Enterprise Virtual Array 5000 systems (EVA5000) enabled SAG-PPHP to consolidate direct-attached storage onto a single storage-area network (SAN) – reducing staff workload while dramatically improving storage management, flexibility, and organizational agility.

The IT upgrade earned glowing reviews, thanks to a predominantly HP storage and server infrastructure. The EVA5000-based storage architecture enabled the organization to reduce backup times by up to 50 percent, improve efficiency through storage consolidation, and reduce total cost of ownership. HP value-added reseller Nth Generation and HP Services helped SAG-PPHP design the new infrastructure and coordinate testing and installation.

Standing in the virtual spotlight

"We looked at SAN solutions from Sun/Hitachi, EMC, IBM, and HP," explains SAG-PPHP's Executive Vice President and CIO Nader Karimi. "Only HP offered the total solution we needed. Since we had already chosen an HP server infrastructure, it made sense to choose HP

for our storage needs too – especially considering the superiority of the HP StorageWorks Enterprise Virtual Array 5000 system."

Key applications in the solution include the full Oracle E-Business Suite and the Java-based development environment from BEA Systems. These require the high-performance, high-availability server and storage capabilities delivered by HP rp5405 servers running the HP-UX operating system, as well as HP ProLiant blade server technology.

The EVA5000 has a starring role in the smooth implementation of these complex applications. According to Karimi, the EVA5000 was the best-fit, enterprise-class storage solution, which could also support and integrate seamlessly the SAG-PPHP heterogeneous IT environment of VMS, UNIX and the Microsoft Windows NT platforms. The virtually "capacity free" snapshot capability of the EVA5000 enables the SAG-PPHP implementation team to run tests on actual production data, which has helped streamline application implementation. "Instead of working with test data, we can use a snapshot of actual production data and get a much more accurate picture of how the application will perform," Karimi notes.

The combined capabilities of the EVA5000 system's VersaStor-enabled virtual RAID storage and HP OpenView Storage Area Manager enable Karimi's team to manage storage resources across the organization remotely and with less effort. Instead of manually tracking and managing direct-attached storage on dozens of individual servers, Karimi and his staff are now able to manage storage resources centrally in the organization's SAN and elsewhere. HP VersaStor technology provides distributed storage virtualization in every StorageWorks EVA system, which provides dynamically allocated virtual storage pools the IT team can change on the fly.

"Using HP StorageWorks solutions makes a dramatic difference in storage management," Karimi notes. "Managing disk storage is usually a constant struggle. In many cases, half of your servers are sitting there with too much disk space and the other half have too little; until now, there was no way to efficiently balance the load. With the HP StorageWorks Enterprise Virtual Array and HP OpenView software, we have point-and-click control of all of our storage. We have doubled or tripled our

available storage capacity, yet reduced the management burden on our staff. With solutions from other vendors, we would have needed one of their technicians just to make changes in the storage configuration."

SAG-PPHP's Director of Enterprise Infrastructure Services, Kevin Donnellan, also appreciates the ease of adding SAN storage. "Other monolithic or mainframe approaches require large up-front investments, even before a company needs the storage. With HP, we add storage quickly and as required, allocating those costs to future projects. That's important because as we are transitioning to new applications and services, we now have the flexibility to adapt to any storage need as it arises, and we can do it very quickly."

"The Storage Node Manager within the HP OpenView Storage Area Manager software suite is a powerful tool that gives us a detailed view of all our local and SAN network elements – including capacity, utilization, and disk-drive status," Donnellan continues. "We are already experiencing improved storage-management efficiency, and believe this will improve even further as we learn more of the system's capabilities."

Understudy shines
The HP StorageWorks Enterprise Backup Solution (EBS) combines high-speed Fibre Channel connections, Veritas Backup Exec software, and HP StorageWorks SDLT tape libraries for SAN-based tape backups. The high-capacity StorageWorks libraries come with 320 GB tape drives and touch-screen GUI control. The EBS backs up the SAN and multiple servers over fast Fibre Channel switches while offloading traffic from the corporate network.
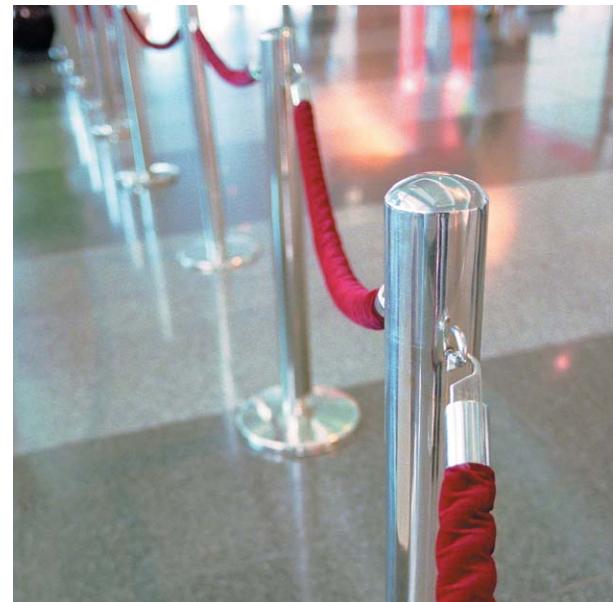
StorageWorks tape libraries enable storage consolidation in a single, high-density format. "Thanks to our new HP StorageWorks tape libraries, we will save thousands in media expenses and labor we formerly devoted to

handling tape drives and coordinating backups," Donnellan notes. "By automating, we simply send finished tapes to our backup site for safekeeping. It once required a full-time person there to handle data restoration – now it's almost a lights-out facility."

The former process also required manual file restoration of tapes of Oracle data and customer service and claims-processing transactions. It took up to 18 hours to process more than 60,000 health plan claims monthly and 1,200 daily customer service calls, generating 100 MB of changes each day.

Mirror, mirror: backup and recovery gets a makeover
SAG-PPHP mirrors Microsoft Windows 2000 and NT-based applications running on HP ProLiant servers – including ProLiant BL10e and BL20p blade servers – which function as Web, application, and Java servers. Mirroring shrinks Windows 2000/NT application restore times from hours to minutes.

Servers running the HP-UX and OpenVMS operating systems also mirror to the Ventura back-up site. Five HP rp5405 four-processor systems, running the HP-UX operating system, provide enterprise-class availability for SAG-PPHP's Oracle Financials and other critical applications. Three rp5405 servers reside at the main Burbank data center; two others provide complete backup at a backup disaster-recovery site.

With data center space at a premium, Karimi appreciates the space-saving design of HP blade servers. "We are very impressed with the HP blade servers," Karimi notes. "They are powerful and space efficient. We even started using them for our BEA application servers. The ability to link the blades to our SAN gives them virtually unlimited storage access as well."

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Challenge

- Consolidate and streamline storage management

- Improve and secure Web-based access to health insurance and pension information

- Provide a highly available server platform

- Reduce the backup window

- Strengthen disaster-recovery resiliency

Solution

Hardware:

- Two HP StorageWorks Enterprise Virtual Array 5000 systems configured as SANs

- HP StorageWorks SAN Switches and SDLT tape libraries

- HP ProLiant servers and server blades

- HP RP5405 servers and AlphaServer systems

Software:

- HP OpenView Storage Area Manager

- HP OpenView Storage Virtual Replicator

- HP StorageWorks Business Copy EVA

- HP StorageWorks Enterprise Backup Solution

- HP ProLiant Essentials Foundation Pack

- HP StorageWorks Management Appliance

- Operating systems: HP OpenVMS, HP-UX, MS Windows 2000 and NT 4.0

- Veritas NetBackup, Oracle E-Business Suite

HP Services:

- Sales and implementation support (Nth Generation)

- HP Care Pack Priority Silver Support

- HP Storage Implementation Services

Results

- Reduced Microsoft Windows-based server backup time by 50 percent

- Cut major application recovery time from 12-18 hours to minutes

- Reduced media expenses by reducing reliance on tape backups

- Improved IT staff efficiency and increased storage-management capabilities by consolidating storage in StorageWorks SAN

- Provided continuous access to critical pension and health-claims information

- Optimized database-query response times

SAG-PPHP mirrors data from the "live" Burbank site to a disaster-recovery site – 60 miles away – via a wide-area network. The production site also transmits database logs and other transactions using Oracle log shipping and NSI Software's Double-Take data-replication solution to the remote site. The IT team is typically able to remedy complete loss of the live site in minutes from the fully functioning hot site, where a second StorageWorks EVA5000-based SAN preserves a "mirror" image of critical databases. SAG-PPHP also maintains mirrored versions of mission-critical applications on the OpenVMS, HP-UX, and NT operating systems at the remote disaster-recovery site.

HP excels in long-term supporting role

Nth Generation and HP Services helped SAG-PPHP design its infrastructure and coordinate testing and ins tallation. "HP Services and Nth Generation were very responsive to our aggressive installation schedule," Donnellan notes. "They took care of any problems immediately and efficiently. We made up for a lengthy evaluation period with fast installation."

"As CIO, I believe that HP will be here for the long haul," Karimi says. "We consolidated to a few key vendors for infrastructure and services; HP is one of our key partners, giving us a single comprehensive resource. That played a big role in our evaluation. The HP ENSAextended storage architecture is not just hype – it's real, with real products such as the HP StorageWorks Enterprise Virtual Array."

Company profile:
When the spotlights fade and the production wraps, most actors lead normal lives – including visits to the dentist, retirement planning, and the other day-to-day activities that occupy us all. In 1960, a collective bargaining agreement between producers in the motion picture and television industry and SAG established the Screen Actors Guild-Producers Pension and Health Plans (SAG-PPHP). For more than 40,000 actors and their dependents, SAG-PPHP manages a common fund to provide pension and health benefits for all eligible SAG members (www.sagph.org).

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