Hoya Corporation

PROFILE

Industry
Manufacturing

Corporate Headquarters
Tokyo, Japan

Employees
36,547

Annual Revenue
413.3 billion yen

Website
http://www.hoya.co.jp/english/index.html

THE NUMBERS

- Support 108 branch offices in 26 countries
- 1,000 end users; 300 to 350 concurrent
- Eight production systems virtualized
- Largest SQL database is two terabytes

IN BRIEF

Objective
- Launch new global ERP system
- Cut costs
- Increase scalability and flexibility

Solution
- Migrate SAP from UNIX/Oracle platform to Microsoft Windows and Microsoft SQL Server virtualized on VMware vSphere hosted on private cloud

Business Impact
- Cut SAP operating costs 75 percent
- Increase business agility of globally diversified technology leader through simple, flexible provisioning capabilities to add incremental workloads
- Implement IT-as-a-service model to eliminate hardware and software capital investment in favor of predictable, usage-based monthly fee
- Reduce IT labor costs, maintenance burden

Diversified Global Optics Leader Based in Tokyo Virtualizes SAP to Reduce Costs, Increase Flexibility

"We successfully migrated eight production systems at the same time, which might be considered risky. But VMware software is known for its stability and it is fully supported by SAP. It would have been more risky not to virtualize."

— Yoshihiro Moriya, IT Group, Financial Department, Hoya Corp.

Cut costs. Increase flexibility and scalability. These driving goals led the global optics firm Hoya Corp. to migrate SAP ERP from a UNIX/Oracle platform to Microsoft Windows and Microsoft SQL Server virtualized on VMware® vSphere®. As a result, the company has reduced its SAP operating costs 75 percent, increased business agility for diversified growth and set the stage for more-robust disaster recovery. What's more, migration to a pay-as-you-go IT-as-a-service (ITaaS) model in a cloud environment hosted by QUNIE eliminates capital costs in favor of usage-based flexibility.

"We wanted to be free of the restrictions of hardware," says Yoshihiro Moriya, IT group of Hoya's financial department. "VMware technology enables this, and is known for stability and high performance. What's more, the private cloud environment eliminates hardware capital investments and dramatically reduces operating costs," says Kazusumi Kanemitsu, IT group of Hoya's financial department.

Diversified Global Firm Seeks to Migrate Legacy Systems

Established in 1941 as Japan's first specialty manufacturer of optical glass, Hoya has diversified into multiple business areas developing the potential of advanced optics technologies. Its four fields of focus—Information Technology, Eye Care, Medical and Imaging Systems—employ close to 37,000 workers in 26 countries worldwide. Hoya's Information Technology business makes mask blanks and photomasks for semiconductor devices and liquid crystal panels, optical lenses, and glass memory disks for hard disk drives. Eye Care makes eyeglasses and intraocular lenses for cataract surgery, and operates contact lens retail shops. The Life Care business provides endoscopic systems. Imaging Systems produces single-lens-reflex (SLR)/compact digital cameras and interchangeable lenses as well as digital-camera lens modules and micro lenses.

Before virtualizing SAP in 2010, Hoya ran its ERP system on legacy UNIX-based hardware and Oracle. The system was costly to maintain and operate, and it could not provide the agility Hoya needed as a diversified and growing global enterprise. The company's IT challenges were to reduce operating costs, run legacy applications on new hardware, provide higher availability and strengthen disaster recovery. In addition, it was finding that fewer and fewer IT professionals had the skills to maintain the legacy systems.

Virtualization could solve these problems, but Hoya knew of no Japanese company that had virtualized its mission-critical SAP system onto a Microsoft platform with a hosting service.

"We had a concern about the performance of SAP running virtually on a Windows platform, especially for a production environment," Keijiro Osumi, IT group leader of Hoya's financial department, says. "We'd never heard of a case where it had been done before in Japan."

"We wanted to be free of the restrictions of hardware, in order to cut costs, and increase flexibility and scalability"

Keijiro Osumi
IT Group Leader
Hoya Corp.

QUNIE Guides Project, Supports Selection of VMware Platform

Hoya worked with QUNIE Corporation, a Tokyo-based consulting firm with deep expertise in virtualization. Formed in 2009 through the merger of Zacatii Consulting Inc., and NTT DATA Business Consulting Corp., QUNIE traces its roots to the host of Hoya's datacenter cloud environment. The consulting firm guided Hoya's SAP project from the earliest planning stages all the way through architecture design to system provisioning, migration and operation. QUNIE recommended VMware as a stable and robust virtualization platform.

"Hoya understood that cost reductions and higher availability could be achieved with VMware vSphere," says Takuya Ozawa, QUNIE senior manager. "The company chose VMware as its virtualization platform because SAP formally supports VMware and because there are many success stories worldwide of the application running on VMware technology."

An additional reason for choosing VMware vSphere was that its High Availability (HA) features are easy to use, especially compared with the complexity and limited functionality of Hoya's previous UNIX cluster system. Ozawa adds, "It doesn't take specialized skills to configure VMware HA or to build it up." What's more, the VMware solution could accommodate Hoya's implementation of SAP R/3 4.0B on Microsoft Windows 2000. Hoya application and database administrators alike fully supported the plan to virtualize.

Successful Migration Delivers Business Advantages

Hoya's virtualization platform is VMware vSphere 4.0 with VMware vCenter™ Server. Platform features such as vMotion and High Availability are crucial to the management ease and reliable uptime Hoya demands. The environment runs on Intel-based Dell PowerEdge R710 servers with Dell EqualLogic storage and Dell PowerConnect, as well as H3C S5120 switches. The SAP modules virtualized are Finance and Control (FICO); Sales and Distribution, Material Management (SD MM); Strategic Enterprise Management (SEM); and Process Integration (PI). Eight production systems are virtualized, as well as test and development environments. The largest Microsoft SQL Server production database is two terabytes. The project took two months to plan and four months to implement, and was completed in November 2010.

"We successfully migrated eight systems at the same time, which can be considered risky, especially for production systems," says Yoshihiro Morya. "However, we had identified the risks clearly, chosen a robust platform and designed a strong architecture. The risk of not taking action would have been far greater."

Hoya's global financial operation supports 108 branch offices employing 1,000 SAP end users—between 300 and 350 concurrently—in 26 countries. All of them use the SAP FI/CO module, which provides core accounting and reporting capabilities, receivables management, treasury capabilities, and shared services. Smaller subsets of groups use the additional deployed modules.

A key business advantage to end users of the virtualized SAP deployment is faster processing. For example, the finance department can run consolidated financials across business units in half the previous time. "In some cases, a task that used to take ten minutes now takes five," Osumi says. "Consolidated closing processing is an example of that performance improvement. With the recent adoption of new accounting standards, it was a good time to accelerate processing."

In addition, simple and flexible provisioning with VMware software enables fast response to user needs for increased workload capacity or deployment of additional SAP modules. For a company that has grown through acquisition and runs multiple business units, the ability to consolidate data across lines of business—and add capacity or new capabilities quickly—creates a competitive advantage.

"There are many success stories worldwide showing SAP running on VMware technology."

Takuya Ozawa
Senior Manager,
QUNIE Corp.

Hoya's initial driver to virtualize was to cut costs. TCO calculations performed at the beginning of the project anticipated the 75 percent operational cost reduction Hoya in fact realized. The savings come primarily from eliminating hardware leasing expenses. Labor costs are also down, thanks to simplified infrastructure management. At the same time, the system is more flexible and easily scalable, thanks both to VMware infrastructure capabilities and to the software service pay-as-you-go model.

Next Steps: Enhance Disaster Recovery, Chargeback

The next virtualization project at Hoya is enhanced disaster recovery and business continuity with VMware Site Recovery Manager (SRM). Disaster recovery is a key concern all over Japan after the devastating earthquake and tsunami on March 11, 2011. SRM will provide the means to automate recovery tasks and ensure success.

"Without VMware, our choices for disaster recovery would be extremely limited," Kazusumi Kanemitsu says.

Hoya also is looking into VMware vCenter Chargeback to provide cost transparency and accountability in its cloud environment, which might extend eventually to link with public cloud environments.

"Hoya takes a long-term view of flexibility, scalability and high performance at minimal TCO," Osumi says. "Building a cloud environment on the VMware platform gives us an infrastructure to meet the needs of the future."

IMPLEMENTATION OVERVIEW

VMware Products:
VMware vSphere 4
VMware vCenter

Applications:
SAP ERP 6.0
modules
FI/CO, SDDM, SEM, PI
Microsoft SQL Server

Partner:
QUNIE

Platform:
Dell PowerEdge R710 servers
Dell EqualLogic storage
Dell PowerConnect
HC3 S5120
Microsoft Windows 2008

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