Ngai Hing Hong Realizes Major Improvements to IT Management and Operational Efficiency Using VMware vSAN

NHH

INDUSTRY
Plastics Manufacturing and Trading

LOCATION
Hong Kong

KEY CHALLENGES
- Decentralized IT system that was difficult to manage
- Lack of data recovery solutions hampered operations when servers were down or needed replacement

SOLUTION
- Ngai Hing Hong used VMware vSphere to acquire the next generation of virtualization to support its business; and deployed vSAN to enhance the capacity and availability of its IT support
- With VMware's Site Recovery Manager (SRM), NHH is also able to back up data from Mainland China in Hong Kong.

BUSINESS BENEFITS
- Hyper converged IT platform that centralizes management
- Greater operational efficiency
- Time and cost savings

Ngai Hing Hong (NHH) was established in early 1970, and specializes in the manufacturing and trading of plastic materials, colorants, pigments, compounded plastic resins and custom-made engineering plastics. NHH is headquartered in Hong Kong, and was the first company in the plastics industry listed on the Hong Kong Stock Exchange in 1994. The company has a factory in Hong Kong, and factories in mainland Chinese cities including Shanghai, Qingdao and Dongguan. NHH is a multinational business, which sources its materials from Europe and Taiwan, and has customers around the world, including in China and Europe.

Over recent years, NHH experienced positive business growth, due to the stabilization of Renminbi and oil prices. As a result, the company expanded its operations by establishing more factories in mainland China. However, this expansion created IT challenges which NHH had to face.

The Challenges

The first challenge was that the factory in Hong Kong and each of the new factories in mainland China were using independent physical servers, which could not be administered centrally. The decentralized nature of the IT system made it difficult and time-consuming to manage.

A further complication was that the factories in certain locations were sometimes affected by electricity shortages, leading to server downtime. NHH did not have a cross-regional platform to replicate and recover the data if servers were down, which resulted in the interruption of business workloads during downtime. Moreover, when servers came back online, the IT team would have to spend a lot of time checking if any data loss had occurred.

A final issue was that if any of the servers needed to be replaced due to a hardware failure, the IT team had to go through a lengthy procurement process to purchase new ones. Typically, the replacement of servers took 2 months, since it took time to review quotations from different vendors and have the servers delivered. While servers were being replaced, business operations would be disrupted until new servers were ready, due to the absence of data recovery services.

In light of the individual server system's shortcomings, NHH resolved to use better technology that would overcome the challenges of decentralized IT management, as well as inefficiencies related to data back-up and server replacement.

vmware®

"The excellent design of VMware vSAN and vSphere has been critical to supporting our business operations and modern workloads in a cost-effective manner. The disaster recovery function ultimately makes our team more agile in delivering good performance."

Paul Chung, IT Manager,
Ngai Hing Hong Company Limited

VMWARE FOOTPRINT

VMware vSAN

The Solution

NHH initially chose to employ VMware's vSphere, the world's leading server virtualization platform, which helped the IT team to manage virtual workloads. NHH's satisfaction with the platform led to a decision to deploy VMware's vSAN on top of vSphere. vSAN is a software-defined storage solution which combines the data stored across different servers into a shared datastore that can be managed centrally. By using vSphere and vSAN, which integrate seamlessly, NHH adopted a hyper converged infrastructure where servers, virtualization and data are merged and can be controlled from one place. This made IT management across the different factories of NHH much faster and simpler compared to the previous decentralized system.

The deployment of vSAN has furthermore empowered NHH to achieve effective disaster recovery and back-up. For example, VMware's Site Recovery Manager (SRM) enables NHH to replicate data from one location to another with just one click. If technical issues or electricity shortages lead to data loss or downtime in one location, the IT team can initiate disaster recovery and resume services within minutes. In addition, vSAN's Recovery Point Objective (RPO) capability enables asynchronous virtual machine replication in 5 minutes, thereby enabling the IT team to protect mission critical workloads and data. Furthermore, if servers need to be replaced, business operations are not interrupted since work can resume thanks to the data recovery capabilities of vSAN, which are available 24/7.

Business Benefits

NHH has reaped a number of business benefits since it upgraded its IT system to incorporate VMware's vSphere and vSAN. First of all, the hyper converged infrastructure means that servers, workloads and data do not have to be managed separately as they were in the past. They can be handled centrally, which saves the IT team significant time and makes the company more productive as a whole.

The second is huge improvements in efficiency because when servers are down or need to be replaced, vSAN can facilitate disaster recovery to minimize data loss or the disruption of business operations, enabling important company data and workloads to still be accessed as a result.

The improvements in productivity and efficiency inevitably lead to cost savings for NHH in comparison to the previous system. As Paul Chung, IT Manager of NHH states, "The excellent design of VMware vSAN and vSphere has been critical to supporting our business operations and modern workloads in a cost-effective manner." The adoption of VMware's hyper converged infrastructure furthermore reduces the total cost of ownership by around 50% compared to traditional IT solutions, by consolidating core data center functions and being simple to administer.

vmware®