The HDS solution helps Aokang address the challenges of IT fundamentally. Now, Aokang has successfully solved bottlenecks with its core system storage and finished building its cloud storage pool.

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Cloud Storage Pool From Hitachi Data Systems Transforms Aokang’s Storage Silos Into Agile Storage

Aokang Group is one of China’s biggest and most successful shoe designing and manufacturing enterprises. Since the first pair of shoes manufactured in Wenzhou in 1988, the brand has expanded across China. IT responded to this growth as quickly as possible, but the resulting systems silos lead to issues. The company experienced difficulty in information sharing, ineffective use of computing and storage resources, and increasing system management and maintenance costs. To address these issues, Aokang turned to Hitachi Data Systems for a cloud storage solution to transform its storage silos to an agile storage platform with better performance and infrastructure reliability.

About Aokang Group
With more than 20,000 employees, Aokang Group has 3 shoe manufacturing bases and 5 shoe brands. The company has more than 30 provincial branches, 3,000 chain stores and 800 stores across the country. In addition, Aokang has 3 shoe pattern R&D centers in Wenzhou (Zhejiang), Dongguan (Guangdong) and Milan (Italy). It develops thousands of new models each year, leading the fashion shoe industry and keeping ahead of competitors.

In 2013, Aokang was reported “19th Most Valuable Chinese Brand” and valued at RMB 14.785 billion. These stats rank Aokang within the top 28 in the shoe brand industry in China.

The Challenge: Project Background and Requirements
At Aokang Group, IT is involved in all company processes, from business operations management through development and production to service. The company relies on IT to accelerate product research and development, reduce development costs. In terms of corporate management, enterprise resource planning (ERP) is used to build the internal business operations

Aokang Group

INDUSTRY
Manufacturing: Retail Shoe Design

SOLUTION
Cloud, Enterprise Platform, File and Content

HARDWARE
Hitachi Virtual Storage Platform, Hitachi NAS Platform

SOFTWARE
Hitachi Universal Volume Manager, Hitachi ShadowImage Heterogeneous Replication, Hitachi NAS Platform

SERVICES
Storage virtualization, data migration and underlying replication implementation services provide by Hitachi Data Systems Global Solution Services or Professional Services

Benefits at a Glance
- Improved storage utilization from 30% to 60%.
- Eliminated storage silos, bottlenecks and infrastructure problems.
- Simplified storage management.
management system, optimize the supply chain, provide the e-commerce platform, and improve the management level. The core sales system provides real-time market sales data, thus providing firsthand information for production, warehousing and decision-making.

Over the years, to accommodate the company’s growth, IT has addressed business unit needs, which resulted in information silos and made it difficult to support collaborative planning and implementation. In addition, its data is scattered among different storage devices from different vendors, including IBM, EMC and HP. Over time, the silos lead to difficulty in information sharing, inefficient use of computing and storage resources, and increasing system management and maintenance costs. Meanwhile, the performance of its core sales system degraded and its query and monthly settlements slowed down, lowering its business customer satisfaction. Improving system performance was a top challenge for Aokang.

The Solution

Hitachi Data Systems offered a solution that would allow Aokang to perform professional analysis of peak performance data and identify performance bottlenecks in its business system (see Figure 1). The solution employs the high-end enterprise-level Hitachi Virtual Storage Platform (VSP) as the back-end data storage platform. The storage platform provides a total internal bandwidth up to 192GB/sec. According to the Storage Performance Council, VSP is a storage platform with the highest performance in the industry. Based on the 5th-generation of the fiber switch fabric with Hitachi Universal Star Network, the platform can support 8 virtual storage controllers and global cache with a single image, up to 1TB.

With the unique virtualization technology on VSP, the existing IBM® DS5020, EMC CX500 and HP EVA storage products are taken over in a unified way. VSP supports cloud storage for production, allowing for unified storage and management of all data. Additionally, expansion and upgrading can be performed smoothly on the unified storage platform in the future. As all the storage is allocated to servers more flexibly, any server can use any storage. Eliminating the storage silos improves disk utilization and reduces subsequent disk purchase.

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Figure 1. The Hitachi Data Systems solution allows for unified storage and management of all data.

After the original storage is virtualized, it is possible to move the data in the 2 financial systems and the sales portal system to the VSP core storage online.

With Hitachi ShadowImage Heterogeneous Replication software, data copies can be separated instantly without involving host resources. This process protects the business data in the level-1 and level-2 systems. To reduce capital expenditure (capex), the virtualized CX500 or DS5020 can be used for additional cloning and backup.

Up to 32 cache partitions are supported. That capability enables the sales portal, financial GS, production ERP and future Microsoft® Exchange systems to obtain their own partitions. In doing so, the data and host access across storage partitions are completely separated on different host interfaces, data caches and disk channels.

With one unified storage platform from HDS, the company can create all of its business systems. It can store both structured data, such as ERP and customer relationship management (CRM) databases, and unstructured design drawings and lab documents. With Hitachi NAS Platform, the back-end storage for unstructured design drawings and lab documents can be built directly to help support quick deployment of collaborative office systems in the future.

The Benefits of Cloud Storage From HDS

The Hitachi Data Systems solution provides a simplified and unified platform for data center storage. All existing services, database systems and file storage platforms of Aokang in the form of Fibre Channel SAN or NAS connect to the new VSP. In addition,
Innovation is the engine of change, and information is its fuel. Innovate intelligently to lead your market, grow your company, and change the world. Manage your information with Hitachi Data Systems.

thanks to proprietary Hitachi virtualization technologies, existing storage devices can be integrated into the platform. Therefore, legacy storage devices can be managed via the VSP system in a unified manner, without damaging the internal data structure and normal use of legacy storage.

These capabilities help protect the company’s investment. It allows IT to eliminate lock-in in terms of storage expansion in the future, greatly reducing subsequent capex. The powerful 3-dimensional scalability of VSP can meet requirements for business data storage in the coming decade.

Further benefits of the Hitachi Data Systems cloud storage solution for Aokang Group include:

- The storage bottleneck of the core portal system is eliminated. Additionally, dual storage is implemented in the portal system to deal with potential logic and physical failures.
- As the storage silos at the data center are eliminated, data can flow across storage devices. This capability significantly improves storage utilization and protects the investment.
- With a single management interface, the IT can manage all existing storage devices at the data center. That control helps to simplify management and improves efficiency.
- The storage pool at Aokang’s data center can be expanded flexibly. Almost all leading storage devices can be added anytime to allow for agile planning for the data center.