

## Case study

# Zheshang Securities bases future growth on virtualization



**HP ProLiant servers support a consolidation ratio of 1:13**

### Industry

Financial Services

### Objective

Meet the IT needs of rapidly growing business and increased regulatory compliance

### Approach

Conducted a feasibility study and created a detailed plan, considering software, servers, networking and storage as well as the actual business requirements of the securities industry

### IT matters

- Delivered a server consolidation ratio of 1:13, improving hardware utilization
- Reduced the demands for data center floor space and lowered power consumption
- Ensured data security through mirrored iSCSI virtual storage
- Provided a highly scalable solution to support future growth

### Business matters

- Saved several hundred thousand Yuan in initial acquisition costs
- Supports business continuity for the company headquarters and subsidiaries
- Increased the stable and efficient operation of both database and non-core systems
- Improved management efficiency, providing better investment protection and Return-on-Investment



**“By reducing the number of physical servers, savings were made in our hardware investment and the demands on the machine room environment were greatly reduced.”**

– Liu Li, Information Technology assistant general manager, Zheshang Securities

### An IT strategy for future growth

Rapid business growth and increased regulatory compliance meant that China’s Zheshang Securities needed to re-think its IT infrastructure. It decided that server virtualization was the way to go and based its new infrastructure on HP server and storage products. The result is a more cost effective, easily managed and scalable solution that supports the efficiency of this fast-growing brokerage.





## Challenge

### Support for growth

Zheshang Securities was established in May 2002. It is a medium-sized, growth-oriented brokerage that specializes in securities, futures, funds and venture capital. It has headquarters in Hangzhou and Shanghai, as well as brokerage offices across China. Zheshang Securities has always attached great importance to information technology believing that investing in IT is a key factor in maintaining healthy business growth.

Rapid business growth and the requirements of increased regulatory compliance meant that Zheshang Securities had to implement real-time local and remote backup and switching for its systems and data. It was faced with having to substantially increase investment in equipment, operation and maintenance. It also faced challenges such as dealing with space and power shortages at data centers, rapid deployment of equipment and comprehensive management.

## Solution

### Virtualized environment

When Liu Li, Information Technology assistant general manager with Zheshang Securities, was choosing a supplier, his focus was mainly on HP.

“We have used HP Software products since the early days of the company. The machine rooms in Hangzhou and Shanghai consist almost completely of HP products. We have used HP ProLiant servers from the G2 generation all the way to the Gen8 and we have also used a lot of storage products such as HP StoreVirtual P4500, EVA4400 and EVA P6500. The excellent performance of the products and professional standard of service made Zheshang Securities take another look at HP.”

The company decided that server virtualization would transform its IT infrastructure. It carried out a feasibility study and created a detailed plan, considering software, servers, networking and storage as well as the actual business requirements of the securities industry.



To meet current business needs and build in scalability it chose a virtualization platform consisting of six HP StoreVirtual P4500 storage systems, six HP ProLiant BL680 blade servers, three HP BladeSystem c7000 blade enclosures and VMware virtualization software. The infrastructure is located at the Hangzhou headquarters datacenter. A Disaster Recovery facility is located at the Shanghai headquarters. This uses an HP ProLiant DL580 server and HP StoreVirtual P4500 storage system. The HP StoreVirtual P4500 storage system is a perfect fit for blade servers. Using iSCSI transmission means that there is no longer any need to invest in building a dedicated storage network.

## Benefits

### Simplified management

The overall application environment is running well, server utilization has improved significantly, power requirements have been reduced and business continuity is guaranteed. Service levels have also improved and in addition to database systems and the vital securities transfer platform, the virtual environment supports many non-core systems. This has enabled Zheshang Securities to achieve performance improvements with long-term stability, excellent scalability and simplified management, as well as reducing space and power requirements. The result is that HP servers and storage products provide a healthy return on IT investment.

Zheshang Securities has created 80 virtual servers from its six HP ProLiant BL680 blade servers. With a server consolidation ratio of 1:13, server utilization rates have greatly improved. By reducing the number of physical servers, savings were made in hardware investment, and the demands on the machine room environment were also greatly reduced. Space, power consumption, uninterruptible power supply and air conditioning equipment will also be reduced. Preliminary estimates show that several hundred thousand Yuan have been saved in the initial investment, compared with the cost of traditional servers. When subsequent management and maintenance cost savings are taken into account, the figure will be much greater.

The storage products are just as impressive. For example, HP P4500 can be purchased in accordance with immediate needs, then performance, capacity and redundancy capabilities can be expanded online to meet increased storage requirements. This can simplify the planning process, avoiding upfront costs and potential performance limitations, while greatly reducing budgetary pressures.

## Customer solution at a glance

### Hardware

- HP ProLiant BL680 server
- HP ProLiant DL580 server
- HP BladeSystem c7000
- HP StoreVirtual P4500 storage system

### Software

- VMware

“HP’s 2-way and 4-way servers have undergone rigorous industry testing, and account for a share of more than 80 percent in the financial market,” says Liu Li. “Its service response systems are more able to meet the uninterrupted operation requirements of the securities industry. As far as Zheshang Securities is concerned, HP has moved from initially just being an equipment supplier to its current status as an overall solution and service provider. Our relationship has become a strategic partnership so when new IT equipment is required in future, we will give priority to HP’s high-performance products.”

Liu Li also believes that HP’s virtualization solution has greatly simplified IT management. Only one management interface is needed for all physical servers and virtual machines. If a physical server develops a fault in a virtualized environment, virtual machine backup and recovery are easier due to the hardware independence of virtual machines. If a virtual machine crashes, backup virtual machines can be uploaded to any physical server, achieving fast recovery. This avoids the complex installation recovery process of a physical environment. In addition, the need for extensive cabling has also been reduced, enabling rapid deployment.

“Under this virtual technology-based solution, six HP ProLiant BL680 blade servers took on the tasks of 80 physical hosts.”

– Liu Li, Information Technology assistant general manager, Zheshang Securities

Commenting on the partnership with HP, Liu Li believes that the manufacturer’s all-round strength is important. HP is very focused on the finance market and has backed this up with considerable investment. Its service response systems support uninterrupted operation and in addition to providing lower costs and higher performance platforms it was also actively involved in the analysis and design of Zheshang Securities’ virtualization project.

When expanding its core online trading system, the company once again chose HP’s new Gen8 servers. The HP Gen8 product has features such as more simple and flexible management, lower power consumption and higher security, making the operating environment for the online trading system more reliable and safe. As far as Zheshang Securities is concerned, HP has moved from initially just being an equipment supplier to its current status as an overall solution and service provider. The relationship between the two parties has become a strategic partnership. When new IT systems are required in future, Zheshang Securities will definitely give priority to HP’s high-performance products.

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