



Objective

Create a flexible, scalable and efficient IT infrastructure capable of supporting business growth while making full use of existing IT Investments

Approach

Discussed cloud options with long-term data centre supplier, Hewlett Packard Enterprise

IT Matters

- Enabled remote monitoring of servers, storage and applications and centralised IT management
- Automated allocation of IT resources, improving efficiency and reducing the need for human intervention
- Maximised the use of existing IT resources

Business Matters

- Provided the infrastructure to support business growth
- Created an environment that is capable of reacting quickly to changing needs
- Reduced IT investment costs by introducing vendor-neutral compatibility

Guangzhou Securities creates platform for future growth

HPE CloudSystem integrates existing infrastructure to maximise IT resources



IT has become an important force in the development of the financial securities industry. Guangzhou Securities is using HPE CloudSystem to build a cloud computing platform with an Infrastructure-as-a-Service (IaaS) layer. This solution will virtualise and pool various physical resources within the infrastructure and implement virtual machine resource sharing and scheduling in data centre servers.

Challenge

Disjointed infrastructure

Established in 1988 by the People's Bank of China, Guangzhou Securities is one of the oldest securities firms in China. It is now part of the giant Yuexiu Group with offices throughout China, but remains based in Guangzhou.

The company covers the core services of the securities market – brokering, investment, underwriting, trading and sponsorship. Its activities are regulated by the China Securities Regulatory Commission and in 2013 Guangzhou successfully upgraded to AA status. However, compared to the top securities companies it remains a relative newcomer.

“Guangzhou Securities introduced cloud computing technology and related equipment to achieve operational and maintenance management automation and processes while improving resource utilisation and reducing overall costs.”

– Manager of IT department, Guangzhou Securities

As an information-intensive industry, financial services management is highly dependent on IT. Guangzhou Securities has always sought out the latest technology to create the most solid and stable IT infrastructure. As the business has grown, the company’s data centre has gradually introduced numerous servers and storage products of different brands.

This has created a number of challenges for the business. With multiple PC-only server brands, including Hewlett Packard Enterprise, IBM and Dell, there is a lack of integrated cross-platform control. This makes it difficult to integrate the distribution of more than 200 VMware virtual machines. In addition, the application types running on these devices are varied and difficult to modify.

Ultimately, the resource utilisation rate for these servers is relatively low with bottlenecks at peak times. The server estate lacks the flexibility and scalability to support business growth which means that Guangzhou Securities is unable to adapt quickly to changing needs.

The business needed to urgently re-engineer its IT systems architecture. The new platform-based IT infrastructure should deliver applications and services quickly and flexibly. Also, resources should be deployed through an integrated architecture, reducing management and maintenance costs.

Solution

Maximising existing investments

Guangzhou Securities is a long-term HPE collaborator, using HPE equipment in the construction of its data centre. Working from HPE recommendations, the company decided to introduce cloud computing technology to optimise and integrate its IT systems. This option would make full use of existing IT hardware resources by automating and streamlining operation and maintenance management, improving resource utilisation rates and reducing overall costs.

The solution requires Guangzhou Securities to buy into the concepts of Converged Infrastructure and Infrastructure-as-a-Service (IaaS). On this basis, HPE recommended an HPE CloudSystem solution suitable for private cloud and business-critical environments.



This builds a standard cloud computing platform architecture using the HPE Matrix Operating Environment with HPE ProLiant BL680c G7 servers, HPE ProLiant DL380p Gen8 servers and HPE 3PAR StoreServ 7400 storage based on an Intel® Xeon® processor, along with a virtualisation platform using VMware software. This means all kinds of resources can be shared and allocated dynamically, and that every brand of rack server or virtual machine currently in the Guangzhou Securities data centre can be implemented and maintained through integrated management tools.

In this project, the server resource pool consists of two newly purchased HPE ProLiant BL680c G7 servers based on an Intel® Xeon® processor and 14 data centre rack servers running non-core business applications. The HPE Matrix Operating Environment allows Guangzhou Securities' existing 200+ virtual machines to be integrated into the cloud computing resource pool. An HPE ProLiant DL380p Gen8 serving as a CMS server provides unified management in many areas, including server assets, virtualised resources and health status. The storage resource pools consist of one HPE 3PAR StoreServ 7400 with 21.6TB of raw capacity, while the addition of two HPE Brocade 8/24 SAN switches incorporates blade server and storage devices into an integrated SAN platform.

Guangzhou Securities' cloud computing platform is deployed in two stages. In the first stage, HPE CloudSystem helps build a turn-key cloud environment. Automated design, configuration and capacity planning and disaster recovery are combined through a self-service portal, providing a command centre that consolidates key workloads, such as workloads from physical and virtual environments. The second stage rapidly deploys non-core application systems, such as online bidding and BI, through the HPE CloudSystem.

Benefits

Easier to manage

Vendor lock-in is eliminated with this heterogeneous open system which provides deployment, monitoring, compliance and oversight across all applications, services and infrastructure. The Guangzhou Securities data centre's existing HPE, Dell and IBM rack servers are integrated into the new platform architecture, offering significant savings in computing resources. Future expansion will not be restricted to a particular brand or product, and will be compatible with the products or solutions of mainstream manufacturers, guaranteeing Guangzhou Securities will make effective use of its existing IT resources.

Case study

Guangzhou
Securities

Industry

Financial Services

Customer at a glance**Hardware**

- HPE CloudSystem
- HPE ProLiant BL680c G7 servers
- HPE ProLiant DL380p Gen8 servers
- HPE 3PAR StoreServ 7400 storage
- HPE Brocade 8/24 SAN switches

Software

- HPE Matrix Operating Environment

The ability of HPE CloudSystem to quickly deploy, integrate and expand adaptable infrastructure enables Guangzhou Securities to complete infrastructure modifications quickly.

Today, the solution has integrated networking, storage and computing resources, and is able to virtualise and pool a variety of the infrastructure's physical resources. IT administrators can view all the information for each device at any time and flexibly allocate resources. These can be dynamically added or reduced according to business requirements, reducing the overall operating costs of the data centre.

The performance and efficiency of the HPE Matrix Operating Environment and HPE blade devices are able to meet the present and future development needs of Guangzhou Securities' business platform.

In addition, computing resources are shared, increasing the utilisation rate of hardware devices. IT management is streamlined and automated, increasing the IT infrastructure's application service response speed. Centralised management reduces IT management and maintenance workloads.

The trend of building clouds has already gained widespread approval within the securities industry. Using an HPE CloudSystem environment based on an Intel® Xeon® processor, HPE has designed a road map to the cloud for Guangzhou Securities, helping it make full use of its existing infrastructure while protecting previous IT investments.

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