



Case Study

Predictive Enterprise
Intel® Xeon® Processor

Service Providers

Service Delivery Infrastructure



A Secured Financial Future

Quad-Core Intel® Xeon® processor technology allows Bohai Securities to deliver greater service quality

China-based Bohai Securities is expanding rapidly.

Central to its growth are its increasing multitude of customers who have placed both their funds and trust in the securities house.

And in its quest for ever-greater service efficiency and to meet the demanding requirements of the online trading business, Bohai Securities maintains a Predictive Enterprise strategy that allows it to predict and refresh its entire IT infrastructure according to market needs.

Challenge

- **Reliable and secure connection**

Bohai Securities' business has increased greatly, and with it comes the need to address the demands of an expanding customer base who connect regularly online to its systems. Thus overall system efficiency, security and login reliability are critical to Bohai Securities' daily operations.

- **Improve transaction speed**

Bohai Securities' volume of online transactions has increased with the number of new customers. The securities house needed to find a solution that addresses current and future transaction loads while improving the speed of each customer transaction.

- **Deliver overall better service quality**

Customer service for Bohai Securities is always a top priority and the securities house sought a solution that could raise customer satisfaction with an overall more responsive system performance and positive user experience.

Solution

- **Develop a Predictive Enterprise vision**

To adequately address its current challenges and meet future ones, Bohai Securities needed to develop a Predictive Enterprise strategy that will respond to its evolving business environment and allow it to sense, predict and act on current and future technology needs.

- **Work with Intel on the latest computing technologies**

Adopting a strategy that includes Intel® multi-core architecture, the financial services company found a powerful, efficient and reliable computing solution that meets its performance requirements now and into the future.

- **Acquire the right tools for the job**

Global financial markets move at a fast pace and values can change in a fraction of a second. By increasing the speed of customers' transaction requests, Bohai Securities' quality of customer service also rises. Systems running on Quad-Core Intel® Xeon® processors¹ now form key parts of Bohai Securities' enhanced IT Infrastructure.

"Intel® Core™ microarchitecture is just what Bohai Securities was looking for to meet our enterprise performance needs."

Liu Xiaoxu
System Operation Manager
Bohai Securities Co., Ltd.

Bohai Securities' Predictive Enterprise vision is fully complemented by multi-core Intel architecture

Spotlight: Bohai Securities

- BohaiSecurities is a comprehensive securities house with 31 subsidiaries throughout China, including 15 in Tianjin alone.
- The company was established in 2001 through the brokerage unit mergers of four Tianjin-based trust firms and the former Tianjin Securities Co.
- Currently, Bohai Securities is the only securities house in the under-construction new economic zone in Tianjin.
- Bohai Securities has a registered capital of 2.227 billion yuan.

**Source: <http://www.bhzq.com/> and <http://www.ewww.com.cn>

Assessing the Situation

Global financial markets today move at a fast pace and values can change in a fraction of a second.

As today's new financial products and services grow in number and complexity, consumers too are increasingly growing in investment savvy.

These trends have served to create a need for transparent, secure, efficient and accurate online transactions that was quite simply unheard of merely a decade ago.

Sensing the demand for speedy, convenient online transactions, Bohai Security had leveraged on technology right from the start to address its customer service challenge.

However, as its business grows by leaps and bounds over the years, Bohai Securities began to realize that it needed to refine its online trading system to meet the increasingly sophisticated demands of investors who are looking for services that are not only able to provide them with trading information but also transaction executions in real time.

"One way to do this is to reinforce our IT infrastructure with a Predictive Enterprise strategy," says Bohai Securities' system operation manager Liu Xiaoxu, "By ensuring that our systems are stable and robust enough to keep up with the service application loads such as search queries, logins and transaction executions, we will be able to keep our service levels up."

The time was ripe for Bohai Securities to refresh its IT infrastructure with greater computing stability and performance to keep up with the increasing demand for its services while at the same time reducing processing times that may affect its service quality.

To do that, Bohai Securities turned to Intel for an IT infrastructure upgrade in anticipation of greater demand for computing resources to address increased customer requests and faster processing of transactions.



"The high performance capabilities of Quad-Core Intel® Xeon® processor technology allows Bohai Securities to boost our customer service standards with a more responsive user experience."

Liu Xiaoxu
System Operation Manager
Bohai Securities Co., Ltd.



“Quad-Core Intel® Xeon® processor technology not only delivers the speed but also the stability and reliability for Bohai Securities to host high-volume online transactions with ease and peace of mind.”

Liu Xiaoxu
System Operation Manager
Bohai Securities Co., Ltd.

Delivering the Solution

In all, 50 Dell* servers running on Quad-Core Intel® Xeon® processor technology form part of the securities house's enhanced IT infrastructure, delivering processing capabilities superior to single or even dual-core processors for Bohai Securities' transaction-intensive applications.

In addition, Quad-Core Intel® Xeon® processor technology features breakthrough performance that allow the securities house to do more with less servers, space and energy consumption.

Out of these 50 servers, 20 are deployed as applications servers while 30 are deployed as communications servers.

These servers in turn drive Bohai Securities' daily operations with operating systems such as Windows Server 2003* and Windows XP*.

The resulting IT infrastructure not only keeps trading and hosting activities running smoothly and reliably, but also provides Bohai Securities with the means to protect privileged financial data reliably.

Additionally, the combination of Microsoft* operating environment and Intel® hardware platforms results in a cost-effective and scalable IT environment for Bohai Securities to run trading software applications that form the core components of its online transaction services.

All these technologies work together to help Bohai Securities rapidly sense, predict, and act on market demands – steps that will enable the securities house to become a Predictive Enterprise that uses technology to maximize return on investment (ROI) and business growth by developing business processes and infrastructure that are not only connected but also adaptive.

As a result, Bohai Securities can now offer faster and more efficient customer service on a robust, responsive network that keeps back-end applications running at peak performance while improving overall system reliability and customer satisfaction across the board.

With these upgrades, Bohai Securities' increased quality of service is now showing where it matters the most – with the customers.

And the securities house could not be happier:

- **Sense:** Quad-Core Intel® Xeon® processor technology's dynamic resource management capabilities come with technologies and methods that sense and analyze changing flows and demands in infrastructure usage. The technology also provides the facilities to redirect available processing capacity to maintain transactional performance and meet application demands.
- **Predict:** Quad-Core Intel® Xeon® processor technology provides energy-efficient management capabilities that allow the securities house to predict which resources it will need and switch off unused systems or transfer processing capacity to another service. The results are faster, more stable and energy-efficient servers that set a whole new standard in login and transactional reliability for Bohai Securities.
- **Act:** In all, Intel® multi-core technology deployment has contributed features such as trust management to boost the overall stability and reliability of Bohai Securities' operations. It is now possible for the securities house to reduce turnaround times and congestion more effectively while significantly boosting system responsiveness. The securities house further gained the processing latitude to accommodate up to 2.5 times*** greater service loads than it used to handle daily.

Key Technologies

- Intel® Core™ microarchitecture forms the fundamental platform for Bohai Securities' application of quad- and dual-core computing technologies.
- Based on Intel Core microarchitecture, Quad-Core Intel® Xeon® processor technology delivers performance superior to single or even dual-core processors for Bohai Securities' transaction-intensive applications.
- Quad-Core Intel® Xeon® processor technology features breakthrough performance capabilities that allow the securities house to do more with yet less servers, space and energy consumption.

Integral Answers

- In all, 50 Dell* servers running on Quad-Core Intel® Xeon® processor technology form part of the securities house's enhanced IT infrastructure.
- Out of these 50 servers, 20 are deployed as applications servers while 30 are deployed as communications servers.
- These servers in turn drive Bohai Securities' daily operations with operating systems such as Windows Server 2003* and Windows XP*.

With the successful deployment of systems based on Intel® Core™ microarchitecture, Bohai Securities has effectively buffered itself against increased business demands and laid the groundwork for the securities house to expand its services further.

And as Bohai Securities continues to expand, it will continue to utilize servers running on Quad-Core Intel® Xeon® processor technology for the scalability and headroom to handle more transactions of increasing complexity, securing a bright financial future not only for itself but also for its valued customers.

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Return on Investment

- By adopting a Predictive Enterprise strategy, Bohai Securities' Quad-Core Intel® Xeon® processor technology deployment allows the securities house to sense, predict, and act rapidly on market demands.
- Quad-Core Intel® Xeon® processor technology also adds to the stability and reliability of the securities house's login and transaction applications, improving overall system response as well as service quality to its valued customers.
- In addition, Quad-Core Intel® Xeon® processor technology delivers performance superior to single-core processors but yet utilize less processor capability even during peak loads, giving Bohai Securities more processor headroom for business growth.
- Bohai Securities further estimates that Quad-Core Intel® Xeon® processor technology can allow the securities house to accommodate up to 2.5 times greater service loads than its current rate of 150,000 transactions per hour.

***Bohai Securities Co., Ltd.



Solution provided by:



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