⇒ CASE STUDY - IT INFRASTRUCTURE

far. The once-and-for-all configuration of ETERNUS storage system also spares us from high system administration and maintenance costs."

In addition to system performance, cooling and power consumption are also major benchmarks of success. For example, the operating temperature of PRIMERGY blade servers in full load is reduced by up to 4 degrees Celsius, significantly relieving the pressure on existing cooling systems at the data centre. Power consumption is also reduced, thanks to the power-efficient design across all types of Fujitsu products.

The ServerView remote server management tools bundled with the systems also help BOCI better manage its operating costs because system administration can be managed off-site, thus allowing greater flexibility in manpower and resource deployment. "The systems will report errors or failures automatically, enabling us to focus more on system planning, project management and other tasks. In fact, there has been so few system errors that we don't even need to worry about it," says Mr. Wong.

BOCI is currently working with Fujitsu to explore further opportunities in serviceon-demand projects to provide full-time system support in view of projected business growth. "In addition to the highly reliable green products and solutions, Fujitsu's solid commitment to delivering success is another critical factor of selection. This strong commitment is rarely seen in any other vendor because we have seen Fujitsu doing everything it can to deliver projects with all requirements met. We are very confident that whatever the challenges ahead may be, we will always have a trustworthy partner like Fujitsu who will never let us down," Mr. Leung adds.



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CASE STUDY - IT INFRASTRUCTURE





AT A GLANCE

CHALLENGES

- Ensure efficient and reliable performance of mission-critical systems of BOCI to support fast-growing business and more stringent compliance and regulatory requirements
- Plan and deploy mission-critical systems within a very short time frame to support new business initiatives
- Support green IT initiatives of BOCI

SOLUTIONS

- Selected PRIMERGY RX300 rack server and ETERNUS2000 storage area network (SAN) systems for office communication system and remote computing applications, which require high-speed and high-volume data transfer
- Deployed PRIMERGY BX620 blade servers for consolidation and virtualisation
- Acquired SPARC Enterprise M4000 and M5000 UNIX servers for mission-critical applications due to enhanced processing power and reliability
- > Implemented ETERNUS4000 Model 500 SAN systems with 30 terabyte in capacity for disaster recovery application

BENEFITS

- Server performance enhanced by 10-15%
- Operating temperature of servers reduced by up to 4 degrees Celsius in full load
- > Highly reliable systems
- > Hassle-free configuration of SAN system once and for all
- Rapid response and efficient support from Fujitsu Hong Kong services team

BOC International Holdings Limited

Commitment to success

"The partnership between BOC International (BOCI) and Fujitsu started with their solid commitment to delivering success. This commitment is embraced by everything Fujitsu does and is rarely seen in any other vendor."

Mr. Robin Leung, Managing Director, Head of Global Information Technology Division, BOC International Holdings Limited.

ABOUT BOC INTERNATIONAL

BOC International Holdings Limited ("BOCI") is a wholly owned subsidiary of Bank of China Limited ("BOC"). With an in-depth local knowledge of China and an international perspective on global markets, BOCI is an expert in the China and Hong Kong capital market business and is well-positioned to offer its clients a wide range of investment banking services.

In February 2002, BOCI set up BOC International (China) Limited ("BOCI (China)") in Shanghai in partnership with five leading domestic investors. In 2006, BOCI (China) was awarded "Financial Product Innovation" by the China Securities Regulatory Commission. BOCI has created

an organisational framework with an effective integrated management system. It has subsidiaries in New York, London, Hong Kong and Singapore, and a sales network covering most major Chinese cities such as Beijing, Shanghai, Guangzhou and Chongqing.

THE CHALLENGE

As the global head office, BOCI in Hong Kong is obliged to support the company's fast-growing business in Mainland China, Hong Kong, Singapore and other markets around the world. While information technology is now indispensable for all businesses, it is particularly important to financial institutions like BOCI given their high and fast-growing volume of online and

CASE STUDY - IT INFRASTRUCTURE

offline transactions, storage and communication requirements of day-to-day operations and stringent compliance and regulatory obligations. The demand for efficiency, reliability and scalability of IT systems is further driven by rising attention to disaster recovery and business contingency planning.

"Speed and accuracy of transactions are the most important service benchmarks for banks and financial institutions like BOCI. Customers expect to complete their transactions within a few taps of fingertips and no delay or error, however small it may be, will be tolerated," says Mr. Leung. "These high expectations of customers translate into extremely demanding requirements of IT system performance in terms of reliability, computing speed and capacity. However, we find more servers purchased a few years back are no longer capable of catching up with our business needs in the fast-changing marketplace."

Another challenge emerged in late 2007 when BOCI began working on a project with extremely high projected transactions but little time to market. The new UNIX servers had to be ready for full-swing operations within three months, as opposed to the usual project timeframe of 12 months or more.

"We have seen in many cases when servers are shipped directly from the manufacturing plants, there are many annoying issues in terms of quality and we have to wait a couple of weeks and even months for the supporting parts to arrive. We look for a vendor who does an excellent job in quality assurance. It will help us save a lot of time and resources in testing the servers, enabling us to meet the tight deadlines," says Mr. Leung.

Like many other leading corporations, BOCI is also looking into raising the standard of Green IT practices. Cooling and power consumption are the key areas of concern due to cost and environmental implications.

"In addition to the environmental impact, Green IT does have great cost implications and therefore makes perfect business sense. As we are planning to revise the operating parameters of our data centres to 25-27 degrees Celsius, it is very important to have servers with effective in-built cooling systems and low power consumption. Otherwise we will fall into the vicious cycle of the hotter the server becomes, the more we spend on cooling systems in the data centre, and

the server will become even hotter over time. In fact, system performance and reliability, as well as product life cycle, will also be compromised if the server is overheated," says Mr. Leung.



"As we are planning to revise the operating parameters of our data centres to 25-27 degrees Celsius, it is very important to have servers with effective in-built cooling systems and low power consumption," says Robin Leung.

THE SOLUTION

BOCI is a sophisticated IT user managing more than 600 servers in five data centres in Hong Kong to support the company's global operations. Having worked with most leading vendors available, BOCI is now looking beyond price and performance when choosing a new vendor.

"As we have more servers and applications to manage, we need to think beyond the basic factors of acquisition price, product specifications and system performance. Now we need to assess how effective the working relationship with the vendor is, and how committed they are to making our projects successful. The likelihood of developing a constructive and long-term partnership that goes beyond the balance sheet has become one of the key considerations when we choose new vendors," says Mr. Philip Wong, Vice President, Information Technology Division, BOC International Holdings Limited.

For this reason, Fujitsu was selected as the IT vendor for a number of server and storage system projects after a careful and detailed assessment of product price and performance, as well as Fujitsu's commitment to delivering success.

"We conducted test runs of Fujitsu servers such as PRIMERGY rack server, blade server and SPARC Enterprise UNIX server

and found remarkable results in terms of reliability, operational efficiency and savings in power consumption. Fujitsu does a great job in delivering system performance in a green and cost-effective manner with lower power consumption and heat dissipation, among others. The principle also applies to their storage systems as well," says Mr. Wong.

Fujitsu PRIMERGY RX300 rack servers and ETERNUS2000 SAN systems were recommended for office communication system and remote computing applications, which require high-speed and high-volume data transfer, while PRIMERGY BX620 blade servers were deployed for consolidation and virtualisation. For mission-critical applications such as the futures and options trading platform, Fujitsu recommended powerful mid-range model of SPARC Enterprise UNIX servers due to their reliability and enhanced processing power. To ensure business continuity, a high reliable ETERNUS4000 storage systems with 30 terabyte in capacity was implemented in BOCI's disaster recovery site.

"In addition to reliability and performance, Fujitsu's strong commitment to help us succeed also impressed us very much. The Fujitsu team demonstrates a high level of professionalism and willingness to be flexible to accommodate our needs, which is rarely seen in any other vendors," says Mr. Wong.

One example is that BOCI needed to deploy new servers for a new mission-critical initiative in late 2007 that requires reliable and high-performing systems to handle the extremely high volume of projected transactions. Everything needed to be ready in three months, rather than the usual time frame of 12 months or more.

"As you can imagine, it was almost a mission impossible to deploy mission-critical systems within three months. Thanks to the rapid response and dedicated support of Fujitsu, we did it and we did it successfully," says Mr. Wong. "We are most thankful to the Fujitsu team's commitment to do whatever they can throughout the process to make the project a success. Fujitsu's stringent quality assurance procedures to ensure the products delivered are fit for use almost immediately upon arrival also help reduce significant the time to market. Again this is an unusual privilege and you can't really expect every other leading vendor to be able to do the same."

James Pang, General Manager, Sales Department, Information

System and Services Division, Fujitsu Hong Kong Limited says, "Fujitsu's commitment of creating value for customers through environmentally friendly innovation and technology is fully embraced in our projects with BOCI, starting from small projects to mission-critical systems. Our constructive relationship with BOCI is built on a high level of trust delivered through reliable and high-performing products, rapid and effective solutions and services. Our willingness to listen to customer needs and being flexible in developing tailor-made solutions and delivering seamless project management ensures customers are well positioned for any business challenge at any time. This also enables us to build long-term partnerships with customers to support their business objectives going forward."



"Fujitsu's commitment of creating value for customers through environmentally friendly innovation and technology is fully embraced in our projects with BOCI..... Our constructive relationship with BOCI is built on a high level of trust delivered through reliable and high-performing products, rapid and effective solutions and services..... enables us to build long-term partnerships with customers..." says James Pang, Fujitsu Hong Kong.

THE BENEFITS

Partnering with Fujitsu, which provides support from well-thought planning through seamless implementation, BOCI has been enjoying the benefits of deploying Fujitsu SPARC Enterprise UNIX servers, PRIMERGY rack and blade servers and ETERNUS storage systems over the past 18 months.

"Server performance has been enhanced by 10-15%, providing a solid foundation to support our business growth. The SAN system also runs unexpectedly fast and smooth and we are really pleased," says Mr. Wong. "The systems are also highly reliable and we have come across no major problem so