Case study
Anhui Jianghuai Automatic Car Co., Ltd.

«Underpinning the Enterprise Resource Planning (ERP) system with powerful ICT infrastructure has guaranteed data security and business continuity»
Mr. Shao, Project Manager, Anhui Jianghuai Automobile Co., Ltd.

The customer
Anhui Jianghuai Automobile Co Ltd. (JAC), was originally established in 1964 as Hefei Jianghuai Automobile Factory and in 2001 was listed on the Shanghai Stock Exchange. As one of the key enterprises involved in China’s National Torch Program, designed to advance development across high tech industries, JAC sold over 460,000 cars in 2011 and has grown by over 40% in the past 21 years. In 2011, JAC’s total revenue reached RMB 34.7 billion (USD 5.7 billion).

The challenge
The previous JAC ICT environment consisted of two Baan ERP systems implemented on two separate platforms made up of Unix servers purchased in 2004. As the database and Baan ERP systems grew with the business, the hardware struggled to support its needs. This heavily impacted reaction times of the system, and consequently created problems with data sharing and the speed of the reporting process. Both systems had been designed with a hot standby structure, which created further stress on performance and capacity as the system strove to work around the clock to meet the increasing business requirements. Storage was also becoming a major concern as the two mid-range storage systems that were part of the environment had reached 90% capacity and were increasing at 2% per month.

The solution
With a focus on improving ERP performance, data protection and business continuity, Fujitsu proposed a tailored solution to meet JAC’s current and future business needs. In consideration of storage capacity and future system scalability, two Brocade switches and two Fujitsu Storage ETERNUS DX440S2 servers were added to the environment. By connecting the SAN fiber switches to the disk arrays and the database servers, JAC created an FCSAN system that allowed JAC to share network storage disk space. Once the new hardware had been implemented, the existing ORACLE 10G RAC databases were then deployed on the FCSAN framework, enabling database clustering and load balancing. Furthermore, to improve business continuity and safeguard the new FCSAN structure, volume imaging software was deployed to mirror the relationship between the two DX440 storage systems. This made sure that every I/O reached the controller of the two storage systems through two host channels and that only when both returned correct I/O results was the operation deemed complete. As a result data contained in the DX440 system is consistent, avoiding any data loss or interruption to performance.
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### The benefit
- Improved reliability of the ERP system through infrastructure with greater performance and stability
- Improved efficiency and reduce management costs with centralized data management
- Increase data security through remote backup and distributed backup functionality
- Enable uninterrupted business operations, even during unforeseen issues
- Improve accuracy of information and accelerate decision making capabilities to become more competitive in the changing market landscape

### Products and services
- 2 x Fujitsu Storage ETERNUS DX440S2
- Fujitsu Storage ETERNUS SF AdvancedCopy Manager

### Fujitsu ETERNUS

For JAC, the biggest concern was the reliability of their ERP systems. However with the high-performance of Fujitsu Storage ETERNUS DX440S2, they were able to develop an extremely stable data storage infrastructure that could accommodate rapid increases in data and expand with their business growth. JAC were also very impressed with the scalability of Fujitsu Storage ETERNUS DX440S2 as it allowed them to adapt to their changing business environment. With free selection and a combination of modular disk storage, managing the requirements for rapid data increases was made easy. Furthermore, expansion was completed without interruption to the business as the ERP system remained online during the process.

Increasing data security was another key element to establishing the reliability needed from the new solution. Leveraging the remote backup and distributed backup functions of Fujitsu Storage ETERNUS DX440S2, as well as its spare fault tolerance, JAC ensured the system could quickly recover from any downtime and provide greater protection against unexpected disasters. With the new system design structured to focus on fault resistance, double backup and multi-backup functionality eliminated the impact of single points of failure and guaranteed business continuity.

With the previous distributed storage systems, JAC had difficulty effectively managing the increasing amounts of data and new requirements resulting from rapid business growth. Data was either being processed manually or disparately entered into the system at various points. However after introducing the highly reliable Fujitsu Storage ETERNUS DX440S2 system, JAC can now centrally manage this data, support multiple platforms, and automate processing. This has ensured that not only has efficiency in the work place improved, but management costs have been reduced as well.

To ensure JAC could keep pace with the ever changing competitive environment, they need to be able to react quickly with accurate information that will drive business development and profit. By closely integrating the new Fujitsu storage solution with the rest of the ICT environment, it supports management decision making with real-time data and a greater level of data transparency and accuracy. For JAC management, this fast access to reliable information has been essential in becoming more proactive to changes in the market.

### Conclusion

The ERP platform upgrade solution was developed following repeated discussions between Fujitsu and JAC regarding their reliability needs and current system challenges. Together they designed a solution to specifically meet the requirements of JAC now and in the future. The implementation proved very successful and as a result has reinforced JAC’s trust in Fujitsu’s solutions products and expertise. JAC is confident that with Fujitsu’s support they can continue to grow their business using the power of ICT.

### About Fujitsu

Fujitsu is the leading Japanese information and communication technology (ICT) company offering a full range of technology products, solutions and services. Approximately 170,000 Fujitsu people support customers in more than 100 countries. We use our experience and the power of ICT to shape the future of society with our customers. Fujitsu Limited (TSE:6702) reported consolidated revenues of 4.4 trillion yen (US$47 billion) for the fiscal year ended March 31, 2013.