

A business continuity system optimises availability for peace of mind



Gaitame.com Co., Ltd. (Gaitame.com) is the largest online trading company of Foreign Exchange (FX) margin in Japan. In order to further improve the availability of its online services, it implemented a Disaster Tolerant (DT) solution linking its data centres in Tokyo and Okinawa to ensure that there would be no business interruption in the event of a disaster.

HP customer case study: A business continuity centre gives Gaitame.com the peace of mind it needs to support rapid business growth

Industry:
Online trading

Objectives

- Improve business continuity and availability.
- Reduce downtime and associated business risks.
- Enhance data protection.

Approach

- HP Business Continuity and Availability Solutions.
- HP Mission Critical Support.
- HP Superdome Server.
- HP StorageWorks XP12000.

IT improvements

- Real-time data duplication.
- Improved data protection.

Business outcomes

Accelerate business growth

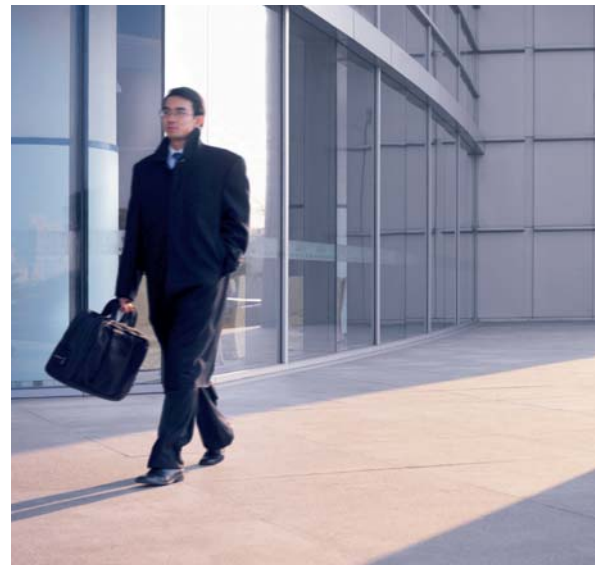
- Uninterrupted availability of data has strengthened customer relationships.

Lower costs

- Enhanced operational efficiency.

Mitigate risks

- Reduced downtime.
- Minimised IT and business risks due to better availability.



With the aid of the DT solution, Gaitame.com was able to provide continuous system operation at a higher level, as well as improve data protection. By sparing no cost in IT investment, the company also created an environment in which clients could perform online transactions as usual even in the event of an emergency. This is the story of how HP's backend IT system helped Gaitame.com actualise what it values the most: providing clients with total peace of mind.

Providing scale and ease of use that are second to none in the industry

Gaitame.com was founded in 2002, with the aim of providing online FX margin trading services to individual investors who are also Internet users. Gaitame.com is an industry leader in terms of the number of accounts and FX reserves the company possesses. Gaitame.com has also received excellent appraisals for providing a user-friendly website interface from an e-commerce authority. These achievements have earned Gaitame.com the reputation of being the "leading corporation in the industry."

The driving force behind Gaitame.com's successes is a self-developed IT system that offers stable performance and high availability. Speaking of the development of the system, Mr. Kazuaki Oshima, Deputy System Manager of Gaitame.com, gave the following explanation: "According to the 1998 edition of the Foreign Exchange Act, general business companies are also allowed to provide an FX margin trading service. However, among the online FX service packages available then, there were almost none that catered to individuals. In order to launch a successful online FX margin trading service, we therefore found it necessary to develop a customised IT system."

Currently, there are 28 web server clusters and two database services at Gaitame.com's Tokyo Data Centre. During peak times, each web server has to process about 500 requests an hour. The database servers, on the other hand, are mission critical business systems which issue and receive over 100,000 orders every day. One of the unique features of Gaitame.com's IT system is that it can not only provide services for products under its own brand, but it also seamlessly integrates Application Services Provider (ASP) services for products from other companies. "We also provide ASP services for products of various stock companies and banks," says Mr. Oshima. "Our own services, with more than 80,000 members, and the ASP services, with over 100,000 members, are run on the same server. This brings the total number of members to over 180,000, and the number is still growing."

"We maintain the same strict standards for services offered under other partner brands," adds Mr. Oshima. "In the event of a system fault, the financial institution using the services and our company will both receive business improvement orders from supervisory authorities. Of course, incidents like this have a negative impact on customer service. We've even had to halt business operations for troubleshooting, or stop attending to new clients on occasion. That's because the management of our company attaches a great deal of importance to system availability. As long as our measures ensure that the system enjoys uninterrupted operations and protects transaction data, we will spare no cost."

Gaitame.com's strong support

Relatively speaking, compared to other web systems, Gaitame.com's IT framework is heterogeneous. For instance, the database servers providing underlying support to the system ran on Microsoft SQL Server 2000 on the Windows platform, where in most cases, RISC series servers are most often used for scalability reasons. To address this discrepancy, Gaitame.com introduced high end servers from HP, the HP Integrity Superdome, in 2004. Capable of running on Windows servers, HP Integrity Superdome servers offer superior reliability, powered by a maximum of 128 64-bit Intel® Itanium® 2 processors. The system operates in the duplex mode through the use of two identical servers, for in the event of a fault in one of the servers, data will be automatically transferred to the other, ensuring business continuity.

As to why Gaitame.com chose to work with HP Integrity Superdome servers, Mr. Oshima explains: "Competing vendors offered their own solutions for us to choose from. However, back in 2004, the HP Integrity Superdome was the only server capable of loading 64 CPUs into one server.* In addition to this, HP's solution offered us excellent scalability. Even after taking into consideration the redundancy needs of all the individual components, the HP Integrity Superdome still appeared to be the best choice for Gaitame.com. This was why we chose to go with HP." With 32 CPUs and 128GB of RAM, Gaitame.com's database server is currently the most extensive application of the HP Integrity Superdome solution in Japan.

Mr. Oshima also places special emphasis on HP's high standard of service.

"On top of mission critical support, we also enjoy a host of other support services from HP. HP's engineers, for example, have given us many excellent suggestions on application-related issues, such as database coordination. The issue we used to have with other PC server vendors was their high staff turnaround rate, which made communication difficult. This wasn't the case with HP at all."

Mr. Kazuki Oshima
System Department Vice President
Gaitame.com

*HP Integrity Superdome servers now support up to 128 CPUs at once.

Implementing a Disaster Tolerant (DT) solution linking Tokyo and Okinawa

To further improve its service level, Gaitame.com decided to implement a DT solution in its IT framework. The Data Centre in Okinawa was established in 2005, so that in the event the Tokyo Data Centre experienced any downtime, critical services could be recovered within a very short period of time. According to Mr. Oshima, "With the rapid increase of Gaitame.com's customers, our responsibilities and accountability increased as well. Although the probability of an unexpected system shutdown, interruption, or in the worse possible case, the loss of transaction data at the Tokyo Data Centre was minimal, we could not afford to take the risk. We had earlier on implemented data backup processes as an initial DT solution, and from there we have studied how to eventually implement a more comprehensive solution."



As for the location of the new data backup centre, Gaitame.com selected Okinawa from a list of candidate cities for several reasons. Okinawa prefecture has a supporting system called “The Highway of the Information Industry,” which allows Gaitame.com to utilise a 100Mbps high speed network connecting Tokyo and Okinawa for free. Also, communication costs were relatively lower in Okinawa. Based on these considerations, Gaitame.com then established a branch in Okinawa so that permanent staff would be stationed on site to handle disaster recovery operations, thus making it easier to switch systems promptly and to ensure business continuity.

Eliminating delays through enhanced duplication

Gaitame.com originally utilised the log distribution function on its Microsoft SQL Server database for data duplication activities between Tokyo and Okinawa. However, the software proved to be very slow. Indeed, it took as long as 15 – 30 minutes to copy the information stored in the Tokyo Data Centre to the Okinawa Data Centre. If there was a system fault, Gaitame.com could lose parts of the transaction records due to this delay.

“Depending on the time period, the amount of trade data being processed by our IT systems varies throughout the day,” says Mr. Oshima. “During peak periods, processing data volumes can reach 3,000 transactions per minute. But because it took 15 – 30 minutes to complete data duplication between our two data centres, this transaction data could be lost. Reducing this delay, and so the loss of critical data, thus became our top priority.”

Following discussions with HP, Gaitame.com was convinced that by integrating HP’s latest storage solutions with the HP Integrity Superdome, delays would be eradicated despite the 1,600km distance between Tokyo and Okinawa. They thus proceeded with HP’s solution. HP StorageWorks XP12000 was deployed in both the Tokyo and Okinawa Data Centres, and no-delay data duplication was made possible utilising the high speed network connecting both cities. The 15 – 30 minute delay was effectively eliminated, and the occurrence of lost transaction data was reduced to a minimum. Says Mr. Oshima, “The lag time between the Tokyo and Okinawa Data Centres has been basically eliminated.” Further tests were conducted based on a normal volume of 2 – 3Mbps and a peak time volume of 90Mbps, with results showing that the HP StorageWorks XP12000 solution takes full advantage of the bandwidth of the 100Mbps network, and enables real-time data duplication.

Bringing peace of mind to customers

It is significant that Gaitame.com’s project has no precedence in the FX industry. By improving its IT operations, Gaitame.com has established a solid framework to realise its business strategies. “Sometimes, we’re faced with competition from other companies who also provide ASP services,” says Mr. Oshima. “However, almost none of them possess a DT solution. The solution that we implemented has important strategic value in promoting ASP services now and in the future. The strong infrastructure in place also ensures smooth service operation. And for our customers, this means total peace of mind.”

Although many users may not be immediately aware of the benefits brought about by the new DT and HP Integrity Superdome solution, already Gaitame.com’s outstanding achievements have earned the company high praise from industry authorities, proving that indeed, persistence in innovation does pay off. By working with high end suppliers such as HP, Gaitame.com’s service level will definitely experience greater improvements in the near future.

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