

# ONLINE TRADING INFRASTRUCTURE

## Success Stories



BUSINESS SYSTEMS INTERNATIONAL

### Sporting Index leaves nothing to chance – Sun solution from BSI increases availability

Since 1992, Sporting Index has specialised in sports spread betting. Today, the company is a market leader, having captured approximately 60% of the market with its telephone and online betting services. Launched in July 2001, SportingIndex.com – one of the first truly 'live' interactive online sports spread betting services – now accounts for over 50% of Sporting Index's betting volume. Approximately 40% of the company's turnover is derived from bets on football, whilst horse racing accounts for around a quarter of all bets.

At the heart of the technical infrastructure that underpins both Sporting Index's telephone service and the SportingIndex.com website lies a clustered Sun™ server solution, running an Oracle Parallel Server database and Sporting Index's bespoke spread betting software application, Margin Maker. The Sun hardware was supplied and configured by Business Systems International (BSI) – a Sun Enterprise Accredited iForce partner specialising in the delivery of robust, high performance solutions – working in conjunction with IT infrastructure management and consultancy services provider, IT Action.

### Resilience of the Sun solution

Sporting Index's need for a new infrastructure solution first arose when the company decided to replace the proprietary system it had been using, with a bespoke spread betting trading system that could be tailored to meet Sporting Index's own specific needs. Developing its own system would provide Sporting Index with the flexibility to adapt the application in line with market changes – quickly, easily and cost-effectively – as and when required. The core technology behind the new software application, Margin Maker, was based on an Oracle database and, in order to optimise the performance of the database and deliver the highest levels of availability, Sporting Index required a robust and highly reliable hardware platform. "Both the software company that originally developed Margin Maker for us, and IT Action, the project managers, recommended Sun/Solaris™ for the back-end serving platform," explains Sporting Index's IT Director, Hugo Smith. "The software had been developed on, and optimised for, Sun/Solaris, and IT Action proposed Sun, based on their own experiences of working with the Sun platform."

Having agreed to deploy the Sun platform, IT Action then recommended BSI to assist with the specification and configuration of the solution, and to supply the entire hardware infrastructure together with specialist clustering services.

The new back-end database serving infrastructure was successfully installed, and has since been added to considerably. "We were so impressed and encouraged by

#### Industry:

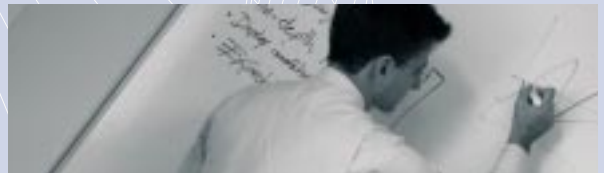
- Retail and Distribution

#### Applications:

- Margin Maker – a bespoke spread betting application
- Oracle Parallel Server database

#### Hardware/Software:

- 2 x Sun™ Enterprise™ 450 servers
- Sun Cluster 2.0
- A range of Sun web, content, email and applications servers – including Netra t1, Enterprise 220, 250 and 420 servers
- Sun StorEdge™ D1000 arrays
- Sun Solaris™ operating environment



#### Key Business Results:

- Clustered Sun solution provides the highest levels of failover and resilience, ensuring that Sporting Index's customers and traders have access to the Margin Maker spread betting system on a 24x7 basis
- Sporting Index's target for site uptime is 99.9% – the Sun/Solaris environment has delivered on that target
- Although Sporting Index's environment was previously 100% NT-based, the success of the initial Sun platform for the back-end database has already led Sporting Index to invest in Sun technology for the company's whole e-commerce operation, middle tier systems and some front-end systems
- Reliability and availability of the Sun/Solaris solution ensures that Sporting Index's customers get true product satisfaction – customers are able to bet, when they want to bet, in the volumes they want to bet – and Sporting Index can handle the volume
- Sporting Index can easily handle up to 6,000 bets a day, and frequently has 2,000 customers concurrently connected to, and interacting with, the database without any problems
- BSI delivered a highly available and cost-effective solution that should meet Sporting Index's needs for several years, without having to make major changes to the hardware
- Sporting Index has benefited from BSI's knowledge and expertise in helping to ensure that the solutions were sized and configured correctly, and were delivered on time

the reliability and resilience of the original Sun solution that, as we continued to develop our Internet operations, we chose to invest further in Sun technology. Indeed, the whole of our e-commerce operation now runs on Sun, as do our middle-tier systems and some of our front-end systems," continues Hugo.

### BSI delivers cost-effective solution

Sporting Index's core infrastructure comprises 2 x Sun Enterprise™ 450 servers, running Oracle Parallel Server database on Sun Cluster 2.0, with StorEdge D1000 storage arrays. The clustered solution provides the highest levels of failover and resilience, and ensures access to the Margin Maker trading system on a 24x7 basis. A range of Sun servers, including Netra t1s, Enterprise 250, 220 and 420s, are deployed as web, applications, content and email servers. The Oracle Parallel Server is a high-availability system designed to handle node, disk, or network interface failures in a clustered environment, with minimal down-time.

BSI supplied all of the Sun hardware, and worked closely with Sporting Index and IT Action, to ensure that the solutions were sized and configured correctly. "We have a very good relationship with BSI, and we knew we could rely on their knowledge of Sun products, and their expertise in specifying Sun solutions, when it came to designing and configuring the solution for Sporting Index," states Yogesh Patel, IT Action's Managing Director. "Sun was our first choice of platform for Sporting Index, based on the reliability, availability and the stability of Sun's Enterprise technology. The E450 servers are very robust technology, and have a reputation as good, reliable platforms that offer scalability for future growth. Together with BSI, we designed a highly available and cost-effective solution that would meet Sporting Index's needs for several years, without having to make major changes to the hardware. Having introduced Sun into an environment that was previously 100% NT-based, Sporting Index has gone on to expand its Sun infrastructure."

### Site uptime of over 99.9%

Hugo Smith takes up the story again: "The true benefits of the Sun solution are its reliability and availability. This reliability and availability ensures that our customers get true product satisfaction; so that customers are able to bet, when they want to bet, in the volumes they want to bet – and we know we can handle the volume. We frequently take up to 6,000 bets a day, split between people betting online and over the phone, but all going through the same back-end Sun solution.

"We have between 40 and 50 traders permanently connected to the system, so they are interacting live on the local area network with the Sun environment and the Oracle database. The capacity of the equipment to handle large volumes of traffic is excellent. We frequently have 2,000 customers concurrently connected to, and interacting with, the database without any problems.



Even during major sporting events, such as the football World Cup, we still had plenty of spare capacity.

"With regards site uptime and availability, our target is 99.9% – and I can confidently say that the Sun/Solaris environment has delivered on that target for the entire time that we've been measuring it, which is the past 14 months.

"Our whole Sun environment is so good, we almost forget it's there – because it's so reliable and resilient, it's one part of our infrastructure we don't need to worry about. We use some other technologies for our front-end system, and although they function well in terms of providing office applications, we actually have to put a lot of time and effort into making them work. Whereas the great thing about our Sun/Solaris environment is that it just works on its own.

"We have also benefited from BSI's knowledge and expertise in helping to ensure that the solutions were sized and configured correctly, and were delivered on time."

### Developing further with BSI and Sun

In early 2002, Sporting Index sold two of its divisions – its financial spread betting service and its online fixed-odds service – to concentrate solely on sports spread betting. In late 2002, the company underwent a successful management buyout. Sporting Index is now focusing on taking sports spread betting to a wider audience, both in terms of increasing people's awareness and understanding of spread betting, as well as expanding the company globally.

"Following the management buyout, we now have plans to grow the company" adds Hugo. "With regards the Sun/Solaris infrastructure, there's still plenty of room for growth with the E450s, but we are looking to upgrade to Sun Cluster 3.0 with Oracle 9i/Real Application Clusters technology, and to upgrade to a minimum of Solaris 8. The Oracle 9i technology will provide additional load balancing between the two E450 servers, and the Sun Cluster/Solaris upgrade will offer even higher levels of availability. And, of course, we'll be relying on BSI and IT Action to provide the technology and expertise, and to ensure a seamless transition."



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