IBM

Australian Open website protected with IBM security and testing tools

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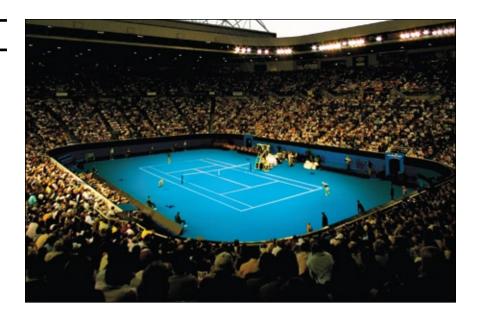### Overview

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■ **The Challenge**
Tennis Australia, managing body of the Australian Open tennis tournament, needed to ensure its high-profile website remained secure and gave users the best possible experience throughout the event.

■ **The Solution**
Long-term IT partner IBM® used a range of IBM Rational® testing tools to optimise website performance and quality and a multi-layered web of IBM Internet Security Systems security equipment to protect the infrastructure from external and internal threats.

■ **The Benefits**
- *Superior website performance*
- *Automated tools reduce testing workload.*
- *Multi-layered defence against attacks.*
- *Centralised management and monitoring.*
- *Cost-effective access to technical expertise.*

australian open
The Grand Slam of Asia/Pacific

Secure, high-quality website an essential element

Australian Open 2008 marked the 103rd year of the tournament with more than 300 of the world's best tennis players competing for a prize pool of around $20 million. The Australian Open is one of four annual Grand Slam tournaments – the most important events in the tennis calendar.

As the national governing body of tennis, Tennis Australia manages the Open. This is no mean feat for a small business with around 100 permanent staff. Australian Open 2008 is expected to beat the previous year's record of nearly 555,000 fans passing through the gates. It attracts worldwide media attention and is

broadcast to nearly 2 billion viewers worldwide; more than 1,400 accredited media representatives from 41 countries attended in 2006.

Just as Tennis Australia requires security protection for players, equipment and venues, it is vital to maintain the integrity of the australianopen.com website. The website gives tennis fans around the globe a virtual seat at the tournament: they can listen to live radio streamed from the Melbourne Park venue, watch video highlights of the day's action and follow live scores.

In 2007, the site attracted more than 4.7 million unique users who visited 22 million times over the two-week event. Having experienced 25% growth in traffic between 2006 and 2007, Tennis

Australia was expecting another record-breaking year for the website in 2008.

"The website is one of the most important public faces of the Australian Open and it has to operate flawlessly for the whole tournament," said Chris Yates, CIO, Tennis Australia.

"However, as a mid-size organisation, we don't have the internal resources to provide the level of technology expertise we need. It wouldn't make sense to keep people on the payroll for 11 months of the year when there is a lot less work to do. That's why we have partnered with IBM for our technology needs every year since 1993."

The 2008 website includes advanced personalisation features and SlamTracker, an interactive draw and scoreboard application that allows website visitors to follow the progress of their favourite players through the tournament and provides access up-to-the-minute match scores and statistics.

"SlamTracker is one of the above-the-line innovations the public can see, but we also need to work very hard behind the scenes to make sure the website stays secure and performs well throughout the Australian Open," said John Kent, IT Project Manager, IBM Sponsorships, IBM.

Automated tools leave grunt work for the tennis court

IBM used a range of server hardware and software technologies to create a flexible, cross-platform website infrastructure that could be scaled up and down to meet audience demand during the lead-up to the Australian Open and the tournament itself. The 2008 Australian Open is powered by IBM System p5® 550 Express® servers with advanced virtualisation technology, as well as range of other IBM midrange, blade and commodity servers. These are combined with IBM Tivoli® monitoring and management software, IBM WebSphere content management technology and the IBM DB2 database platform.

While building this infrastructure, IBM used IBM Rational Performance Tester to ensure the site had adequate capacity to meet the expected demand. IBM technicians used Rational Performance Tester to record a number of browsing scenarios – the paths average users might take on the site looking for particular kinds of information.

"Rational Performance Tester could then run these scenarios hundreds or thousands of times simultaneously to ensure the site remained responsive," said Kent. "Our technicians could easily adjust the mix of scenarios being tested against, for example to see the impact on the rest of the site if a large number of users tried to access videos or the SlamTracker scoreboard application."

IBM also used IBM Rational Policy Tester to help ensure the Australian Open website was error-free to deliver a quality user experience. The Quality module scans for issues such as spelling errors, broken links, brand inconsistencies and outdated content. The Privacy module looks for missing privacy statements, insecure data collection forms, cookies and third-party links that might prevent the site from complying with privacy regulations. Finally, the Accessibility module helps ensure that the website is accessible to all users, including those who are visually impaired or using assistive devices.

"With a site the size and complexity of the Australian Open, automated tools like IBM Rational Performance Tester and IBM Rational Policy Tester can save days, if not weeks, of repetitive manual work,"

– John Kent, IT Project Manager, IBM Sponsorships, IBM.

The IBM Proventia® Network Internet Intrusion Prevention System analysed in real time the volumes of network traffic flowing through the Australian Open website and automatically detected and blocked malicious internet attacks before they gained access to or impacted the infrastructure.

"With such a high volume of traffic, finding an attack is a real needle and haystack job," said Kent. "Without automation, this labour could consume up to half of the security budget."

This technology was combined with the IBM Proventia Network Anomaly Detection System, which analysed user, network and application behaviour within the network to detect any active security threats such as viruses, risky user behaviour, performance issues and noncompliant activities such as unapproved network changes. The final piece of the security puzzle, IBM Proventia Management SiteProtector, allowed IBM technicians to centrally manage and monitor the intrusion prevention and anomaly detection tools.

Flexible, secure website a smash hit with fans

Working with IBM has given Tennis Australia a secure, scalable and highly responsive technology infrastructure without having to make large investments in systems and expertise that would be drastically underutilised for the remainder of the year.

Using IBM Rational automated testing tools helped IBM deliver a higher-quality website and ensure it had allocated enough server resources to cope with user demand. Automating these tasks saved a great deal of manual labour. Similarly, the automated threat detection and centralised management capabilities of IBM's Proventia security tools helped IBM deliver a cost-effective service to Tennis Australia.

"The savings we made in automating the performance, quality and security testing for the website help offset any incremental costs due to tremendous year-to-year traffic growth."

The combined intrusion prevention and anomaly detection systems delivered a multi-layered defence, offering the best possible protection from internal and external threats. This helped ensure fantastic website performance throughout the Australian Open.

"The website is a major element of the Australian Open brand and millions of tennis fans worldwide rely on it to keep up to date and follow their favourite players," said australianopen.com producer Nick Davies, Tennis Australia. "IBM's testing and security tools helped us deliver the best possible experience to all our website users."

About Tennis Australia

Tennis Australia is the governing body of tennis within Australia, linking to member associations throughout the country. It promotes and facilitates participation in tennis at all levels and conducts national and international tournaments including the Davis Cup, Fed Cup and Australian Open. Founded in 1904, Tennis Australia is headquartered in Melbourne and has annual revenue of nearly $100 million.

"The Australian Open website is a great example of how automated tools with built-in intelligence can help organisations reduce their IT management workload and take the drudgery out of maintaining technology systems."

– John Kent, IT Project Manager, IBM Sponsorships, IBM.

For more information

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