

ASX MODERNIZES I.T. PLATFORM TO SPEED APPLICATION DELIVERY WITH RED HAT



SOFTWARE

Red Hat® JBoss® Enterprise Application Platform
 Red Hat JBoss Web Server
 Red Hat Enterprise Linux®
 Red Hat Consulting

As the first major financial market to open each day, the Australian Securities Exchange (ASX) plays a significant role in the global financial services sector. The organization must operate with high stability, security, and performance, but its legacy application server platform was becoming increasingly inconsistent, unstable, and expensive. ASX worked with Red Hat Consulting to modernize by deploying Red Hat JBoss Enterprise Application Platform and other Red Hat platform technology. As a result, the company has improved reliability, time to market, and support costs for its customer-centric web applications and other services.



HEADQUARTERS



FINANCIAL SERVICES

AROUND 560 FULL-TIME EQUIVALENT EMPLOYEES

“Our success reinforces the value of Red Hat’s cohesive approach to deployment as a complete solution: enterprise technology, professional support, and expert training.”

MATHEW DOUGHTY
 FORMER GENERAL MANAGER, CORPORATE TECHNOLOGY,
 AUSTRALIAN SECURITIES EXCHANGE

BENEFITS

- Improved stability, availability, and performance for B2B and public-facing web applications, including achieving 60 times faster application restart speeds
- Reduced platform support costs and time with Red Hat’s subscription-based support model, freeing resources for innovative service development
- Gained access to expert, hands-on training to improve staff knowledge and experience on Red Hat middleware and platform products



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MODERNIZING I.T. PLATFORM TO MEET RELIABILITY REQUIREMENTS

As the first major financial market exchange to open at the start of each business day, the Australian Securities Exchange (ASX) reflects the effect of significant overnight or weekend world events. With 150 years of experience and total market capitalization of around AUD\$1.8 trillion, ASX is considered a world leader in raising capital and consistently ranks among the top five exchanges globally.

ASX offers a full suite of services, including listings, trading, clearing, and settlement to help its customers build wealth, manage investment and operating risk, and fund growth. Its highly skilled team of 560 people serve 6.7 million shareholders and more than 2,200 listed companies and issuers, including some of the world’s leading resource, finance, and technology companies and the largest interest rate derivatives market in Asia.

“We operate in a global regulatory environment with the highest standards,” said Mathew Doughty, former general manager of corporate technology at ASX. “Our clearing houses are among the most secure and well capitalized in the world, underpinning the stability of Australia’s financial markets.”

ASX requires rapid and reliable IT, supported by leading technology and a diverse user community. “Our corporate objective is to be the world’s most respected marketplace. Our technology platform is at the core of the capital markets, and the public perceives our website as the stock exchange,” said Mathew. “An outage or interruption could have a significant effect on the economy. The community would think markets are down.”

ASX established an initiative to modernize its digital platform with new technologies. However, any new solutions must be robust enough to meet the requirements of a culture accustomed to adopting proven technology with a high chance of ensuring key high availability and stability.

“Our previous application server was becoming increasingly inconsistent, unstable, and expensive,” said Mathew. “We needed a solution that would better support our corporate objective.”

UPGRADING TO A SUPPORTED, ENTERPRISE-GRADE PLATFORM

ASX analyzed and tested several platforms for stability, performance, flexibility, availability of enterprise-level support, and cost-effectiveness before deciding to deploy Red Hat JBoss Enterprise Application Platform. ASX also decided to deploy Red Hat JBoss Web Server and Red Hat Enterprise Linux to create a robust foundation for its application server.

“Red Hat’s philosophy of transformation, embodied in its modern architecture and infrastructure offerings, made the decision easy,” said Mathew.

The initial deployment involved one of the organization’s critical business-to-business (B2B) web applications, ASX Online. “ASX Online is at the center of Australia’s capital market, and its use is a regulatory requirement for all financial market participants. Its applications provide prices, company announcements, and critical reporting to the market.”

To ensure its implementation of Red Hat JBoss Enterprise Application Platform provided the necessary stability and performance, ASX engaged Red Hat Consulting. This deployment positions ASX as a pioneer in using Red Hat JBoss Enterprise Application Platform as the common gateway for Adobe Experience Manager and Salesforce to establish an end-to-end customer service environment.

“It’s a complex architecture, but Red Hat JBoss Enterprise Application Platform helped us achieve that unique integration,” said Mathew.

After the success of its initial deployment, ASX continued working with Red Hat to build, test, launch, and deploy additional business applications. Some of these applications include a mobile website, additional digital platform components, and the ASX Sharemarket Game. The ASX Sharemarket Game helps the public learn about the share market by simulating real share market conditions. Users can buy and sell shares in 200 companies using live prices. The game has been a massive success, with up to 20,000 users at one point, and has been added to the national school curriculum as an educational tool.

SUPPORTING GLOBAL FINANCIAL MARKET WITH STABLE, HIGHLY AVAILABLE APPLICATIONS

IMPROVED STABILITY AND RECOVERY

With Red Hat JBoss Enterprise Application Platform, ASX achieved greater stability—and faster, more effective recovery—for its critical ASX Online web application. One key function provided by the Red Hat environment is self-healing capabilities that automatically reestablish database connectivity for applications after an outage.

“You read documents that describe what a particular technology solution is supposed to do, but seeing those features in practice during our database disaster recovery testing made it clear that Red Hat’s claims weren’t just marketing,” said Mathew. “During outages, we’re able to keep our app server running. Unlike with our previous platform, the application automatically picks up the database.”

When application nodes need to be restarted, ASX’s Red Hat environment speeds the restart process. “In our Red Hat JBoss testing environment, we found a phenomenal improvement in our application restarts. When we needed to restart the node, Red Hat JBoss Enterprise Application Platform was at least 60 times faster than our previous platform.”

As a result of these improvements, ASX can ensure its site offers a fast, consistent, and stable experience. “Our integrity is our brand. We exist in a very heavily regulated environment with operating rules to which we must perform under license, but integrity also means unflinchingly meeting our customers’ expectations,” said Theresa Payne, senior manager of web development and support at ASX. “We can now deliver web developments and B2B site improvements with greater speed and offer a seamless end-user experience.”

COST-EFFECTIVE ENTERPRISE SUPPORT

By migrating to Red Hat JBoss Enterprise Application Platform, ASX has drastically reduced support costs and time for its application server. Red Hat product subscriptions include the latest product updates and bug fixes throughout the product’s life cycle, as well as 24x7 access to expert technical guidance.

“With enterprise support for Red Hat JBoss Enterprise Application Platform, we don’t have to worry about day-to-day operations,” said Mathew. “Instead, we can use the funds saved on the technology and its support to invest in developing new features or taking advantage of additional opportunities. We love our relationship with Red Hat.”

ACCESS TO EXPERT, HANDS-ON SERVICES

In addition to working with Red Hat’s expert support and consulting teams for deployment assistance, ASX’s IT teams gained experience with the new Red Hat solutions, learned best practices, and built related skills.

“Our success reinforces the value of Red Hat’s cohesive approach to deployment as a complete solution: enterprise technology, professional support, and expert training,” said Mathew.



CUSTOMER CASE STUDY ASX modernizes I.T. platform to speed application delivery with Red Hat

CONTINUING THE JOURNEY TO MODERN FINANCIAL SERVICES

After its initial Red Hat deployment, ASX plans to continue exploring new ways to modernize and streamline its software environment. For example, the company has announced the use of distributed ledger technology to replace its CHES (Clearing House Electronic Subregister System) platform, the foundation of post-trade processes in Australia's equity market.

"We also plan to use Red Hat JBoss Enterprise Application Platform to modernize our digital platform, including some very large web development tasks like revamping our B2B site and conducting some back-end work on our public site," said Mathew. "Additionally, with the efficiency we've gained in maintenance and operations, we'll be able to dedicate further resources to innovation and supporting our vision of becoming the world's most respected financial marketplace."

ABOUT AUSTRALIAN SECURITIES EXCHANGE

ASX operates at the heart of Australia's financial markets.

Our integrated listings, trading, clearing, and settlement businesses provide customers with efficient access to and exchange of capital, management of risk, and provision of data and other solutions.

ASX operates across multiple asset classes including equities, fixed income, commodities, and energy.

ASX is the global leader in A\$ and NZ\$ financial markets, one of the top 10 securities exchanges in the world, and the largest interest rate derivatives market in Asia. We have trading and information hubs in many of the world's major financial centres, attract company listings from all around the globe, and are based in Australia, which has one of the five largest investable assets pools in the world.

ASX operates and invests in the infrastructure that promotes the stability and development of Australia's financial markets.

We advocate for regulations that support investors and issuers, promote market integrity, and strengthen Australia's global competitiveness.

Our vision is to be the world's most respected financial marketplace.

www.asx.com.au

ABOUT RED HAT

Red Hat is the world's leading provider of open source software solutions, using a community-powered approach to reliable and high-performing cloud, Linux, middleware, storage, and virtualization technologies. Red Hat also offers award-winning support, training, and consulting services. As a connective hub in a global network of enterprises, partners, and open source communities, Red Hat helps create relevant, innovative technologies that liberate resources for growth and prepare customers for the future of IT.



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