

Software for the Agile Business.



Windows 2000 provides a robust solution for Commonwealth Securities Limited

Company Profile

Commonwealth Securities Limited (ComSec) is a wholly owned subsidiary of the Commonwealth Bank of Australia. Its aim is to make investing simple, affordable and accessible to all Australians. ComSec began trading in 1995 with a telephone-based share trading service and, in March 1997, launched the first Australian online trading platform. Since the launch of its Web site, it has grown to become Australia's most visited financial Web site and Australia's leading broker. The site regularly receives more than 10 million hits per day and has processed 35,000 transactions in a single day.

Based in Sydney, ComSec currently runs over 45 Windows® 2000 servers in two physical sites including 15 Web servers in a scale out approach to support the core site. It provides a range of services to more than 600,000 clients and is responsible for over 20 per cent of all retail share trading transactions on the Australian Stock Exchange.

Business Scenario

ComSec needed to protect the high profile of its parent organisation and ensure that customer demands were being met adequately. With such a large number of clients, they needed to provide a site that they were confident could handle 24 x 7 access and high volumes of traffic. They also needed to plan for an expected increase in demand for their services over the next few years.

In early 2000, ComSec decided to review their existing infrastructure, Windows NT Server 4.0 and SQL Server 6.5 databases. Their Web hosting company was also planning to move the location of the servers to another site. ComSec took the opportunity to move the hosting to Optus, providing an opportunity to start from the ground up.

In order to achieve the long-term stability ComSec was looking for, it became clear that the existing system would need to be replaced. Along with their Microsoft Certified Partner, IT & e-Commerce Limited (IT & e), they planned an upgrading project that consisted of three stages:

"Our visit to the US left us convinced that Windows 2000 offered not just the scale and stability we required, but increased options in terms of site bullet-proofing management and maintenance."

— Michael Blomfield,
Deputy General Manager,
ComSec

Organisation

Commonwealth Securities Limited
(ComSec)

Web Site

www.comsec.com.au

Industry

Finance

Business Scenario Summary

ComSec along with IT & e-Commerce required a highly reliable platform to support their Web site ensuring it would be available 24 x 7 including high demand times.

Microsoft®

- Stage 1: Upgrade of the platform for the database systems;
- Stage 2: Upgrade of the platform and infrastructure for the front end systems; and
- Stage 3: Rollout of the new version of IT & e's application for straight through processing.



Business Solution

Choosing the best solution

ComSec and IT & e needed to choose whether to move to a SUN/Oracle solution or upgrade to Windows 2000 Advanced Server and SQL Server 2000.

They were not aware of comparative sites in Australia (at market peak, the ComSec site serves 40 megabits per second of Internet bandwidth) to use as references. So ComSec and IT & e representatives travelled to the United States to visit a number of Microsoft reference sites and review the hardware and software solutions deployed. They also met with Oracle to look at alternative solutions.

Choosing the best of breed product

After extensive analysis, ComSec and IT & e established that Windows 2000 combined with the power of SQL Server 2000 provided the solution ComSec needed. The reference sites gave invaluable and unbiased feedback that clearly indicated Windows 2000 to be the best solution for their requirements. The features which most convinced them included:

- Enterprise class stability;
- Cost-effective scale out;
- High levels of manageability; and

- 2 Windows 2000 provides a robust solution for Commonwealth Securities Limited

Business Solution Summary

The upgrade to Microsoft Windows 2000 and SQL 2000 provided a more robust and highly reliable, high volume Web site.

Microsoft[®]

- Cost-effective development base.

Flexibility, scalability and development the big winners

Michael Blomfield, ComSec's Deputy General Manager, summarises why Windows 2000 was chosen: "ComSec was looking to achieve scale with maximum flexibility in our Internet architecture. We felt our decision was whether or not we went to a big-box architecture versus an enterprise one. Our visit to the US left us convinced that Windows 2000 Advanced Server offered not just the scale and stability we required, but increased options in terms of site bullet-proofing management and maintenance."

Rob Morgan, Chief Technology Officer at IT & e, adds the developer's point of view: "I was motivated as an architect to adopt Windows 2000 because of its enterprise class stability and its operational management features such as scripted installations and terminal services. We were also keen to use the new programming features such as COM+." ComSec committed to the first stage of the project, the upgrade to Windows 2000 Advanced Server and SQL Server 2000.

Ensuring success with a Microsoft Certified Partner

Microsoft Certified Solution Provider, IT & e has provided services to ComSec since the site's inception. As well as designing, building and managing the ComSec site, they developed a customised application that provides customer confirmations of transactions and generates the necessary orders for ComSec back office staff to execute the orders on the Australian Stock Exchange's SEATS system as well as overseas markets.

Benefits

Fast, easy and efficient deployment

The upgrade was completed in July 2000. Although it took a good deal of planning, the actual upgrade proceeded quickly and smoothly. They were able to use scripted installations and when problems occurred with machines they could be dismantled and rebuilt in 30 minutes. Kelvin Lim, Manager, Infrastructure and Operations at IT & e, says, "So many things can be scripted and automated. As we are constantly adding new features and components to enhance the site, rapid deployment is paramount, as is efficiency. The quality of the installation and builds has gone up dramatically".

Microsoft Enterprise Services supplied support and advice in validating IT & e's architecture design as did Compaq, the hardware partner. Stage 2 of the project, the upgrade of the platform and infrastructure for the front-end systems, was completed in December 2000. The rollout of the Straight Through Processing engine (Stage 3) commenced in February 2001.

Partner Details

IT & e-Commerce Ltd

Tel: (02) 9221 7304

Web: www.ite.com.au

Benefits

- Enterprise class stability
- Cost-effectiveness
- Increased manageability
- Low cost, rapid deployment

Cost-effectiveness

Another benefit of the upgrade has been the cost-effectiveness of the solution. ComSec doesn't need to carry more hardware than required. Because of the ease of administration, it's possible to order hardware that is instantly delivered directly to the hosting site for remote setup up and implementation.

The choice of a Microsoft platform has proven to be a wise one. The platform has proved to be scalable and stable, with very high rates of reliability. ComSec's site has met all the performance benchmarks and has been able to handle rapidly increasing traffic volumes.

Technology

Remote management

Windows 2000 Advanced Server's remote management features have proved to be a huge advantage. Previously, management of the servers required a site visit every few days. Now, with Windows 2000 Terminal Services and Compaq's Lights Out Edition Remote Insight Board, a hardware solution that allows out of band management, there is no need to visit the site to manage the network or systems. In fact, site managers have not needed to visit the site since the completion of production implementation.

They were also keen to move to Internet Information Server 5.0 as the US case studies had provided feedback indicating improved performance as well as flexibility in optimising and tuning. ComSec and IT & e could clearly see the potential of using the server side redirects (which they have yet to fully explore) to improve efficiency through elimination of inefficient server to browser interaction which often appears to the user as slow and unresponsive page rendering.

Chris Peiris, senior architect at IT & e, says, "We will be looking at .NET very closely. The existing Microsoft DNA programming model will be leveraged with ASP.NET. The ease of deployment, scalability and faster execution speed of ASP.NET will help us to add value for our ComSec users. We will also look at the possibility of using Web services on our sites. We will investigate ADO.NET and SQL Server 2000 features to improve our data models".

The Future

ComSec has a policy of running at 30 per cent load to cater for the peaks and troughs in the stock market. The aim now is to load balance between the two server farms hosted at two Internet service providers during high-volume periods. ComSec also plans to enhance the site through the use of audio and video streaming.

Microsoft Technology

- Microsoft Windows 2000 Advanced Server
- Microsoft SQL 2000 Server
- Microsoft Internet Information Server 5.0
- Windows 2000 Terminal Services

Other Technology

- Compaq's Lights Out Edition Remote Insights Board



For more information

For more information about Microsoft products or services in Australia, contact Microsoft on 13 20 58. To access information via the Web, go to www.microsoft.com/australia/business

©2001 Microsoft Corporation. All rights reserved. This customer solution is for informational purposes only. MICROSOFT MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, IN THIS SUMMARY. Microsoft, the Microsoft brand, SQL Server and Windows are registered trademarks or trademarks of Microsoft corporation in the United States and/or other countries. The names of actual companies and products mentioned herein may be the trademarks of their respective owners.