

LANSA Case Study

Advance Computing goes cross platform with LANSA

Advance Computing Pty Ltd, based in Kyabram north of Melbourne in Australia, has been a leading provider of specialist financial software and consultancy services for over 25 years. Advance Computing has expanded its market for its financial solutions from a handful of large IBM midrange customers to also include numerous Windows implementations. All platform implementations are supported from a single set of LANSA source code and include features such as XML data exchange, Web access and integrated email and document management.

John Martin, Senior Consultant at Advance Computing says, “Being able to offer a scalable solution that can be deployed on multiple platforms has allowed us to expand our market share dramatically. LANSA lets you start from where you are and build on what you have. Accuracy and reliability are of the utmost importance in the finance industry. LANSA helps us to manage the complexity and risk of implementing new technologies and getting it right the first time, every time.”



Moving Away from RPG

Back in the early eighties, Advance Computing, then known as M&S Computer Services, developed the first versions of its legal and financial software solutions that are today known as MISSION (Mortgage Investment Software System) and CMS (Contributory Mortgage Scheme).

The software was written in conjunction with the company’s first AS/400 customer, The Banksia Financial Group, a large non-bank financial institution, that is still a happy customer today. All applications were written in RPG2 and had been migrated from the IBM System 34/36 to run on the IBM AS/400.

Although very complete in functionality, the application didn’t have the right architecture to take forward. The database was internally described, many of the files had multiple record formats and the RPG language lacked productivity. The applications would only run on the IBM AS/400, but that was not a concern at the time. In 1989, cross platform deployment wasn’t yet on anyone’s radar.

Martin explains, “The challenge then was to reuse existing business logic – initially most of the RPG2 programs – while at the same time updating our software to native AS/400 and taking advantage of the DB2/400 relational database. We selected LANSA because of its central data repository and productive 4GL.”

“We decided for an incremental modernization approach.”

The Migration Project

Using the LANSA Repository, Advance Computing first reworked the database to a proper relational design and externalized the business rules and validations. The RPG programs were initially left as they were, except that they were re-engineered to work with the modernized database. “We decided for the incremental modernization approach, as we could not afford to break with what we had. We wanted to avoid a disruptive and risky big bang approach,” explains Martin.

After back-engineering the modern database design into the RPG programs, Advance Computing embarked on the next step, the gradual replacement of RPG programs with LANSA programs. This included a lot of consolidation where multiple RPG programs were replaced by a single LANSA program.

When in 1992, LANSA announced the first version of its Windows development and deployment tool, at that time called LANSA PCX, Advance Computing was one of the first customers to make the switch from AS/400 to Windows development. The Windows tool allowed Advance Computing to use the same high-level LANSA source code to generate either Windows-based C code or AS/400 based RPG code.

By then, Windows deployment had become a priority for Advance Computing, as several smaller AS/400 customers indicated they wanted to move to the Windows platform. Initially the MISSION and CMS solutions were still partly relying on RPG and therefore could not be deployed in their entirety in a Windows environment. The moment all RPG programs were redeveloped with LANSA, around 1993, Advance Computing offered its solutions in the Windows environment, which the vast majority of customers use today.

Continuously Evolving

The MISSION and CMS solutions have been continuously evolving. MISSION was extended with a Web-based online banking system that allows customers to offer their clients electronic access to their accounts to securely transfer money, view their investments and download statements in PDF format.



John Martin, standing on the right, with the MISSION and CMS development team.

Both solutions have been extended with LANSA Integrator for XML data exchange with third parties. For example, with the Australian Taxation Office for instant verification of a client's tax file number and for periodic reporting of investment returns.

Other integration points include near real-time two-way synchronization with MYOB, Australia's most popular Windows-based accounting system, and on-demand integration with Microsoft Outlook, Excel and Word with Adobe for PDF creation.

A Web-based branch and agent system, currently being implemented by Banksia, allows Banksia's 20+ branches and 300+ agents to have a sub-group of clients in the Banksia system, so they can do business on behalf of Banksia. Banksia can define different levels of authority and individual access to loan/investment products and view reports that show the overall performance of products. In addition, Banksia's branches have Windows client/server access to the core functionality on the IBM i, using LANSA on the client and server, plus Citrix and LANSA middleware.

Advance Computing is often the first to adopt new technologies internally. Martin gives an example of how LANSA Integrator was recently used to extend a Web-based support system with a facility to automatically redirect support requests to the iPhones of technical staff. Martin feels his staff is well prepared as some MISSION customers are now looking at offering their clients the option of receiving alerts by SMS.

What the Customers Say

HD & C Securities Limited is one of MISSION's Windows-based customers. HD & C recently moved from a less scalable solution that required deployment in an emulated UNIX environment under Windows. **David Joyce**, General Manager at HD & C Securities expects that the move to MISSION will provide for a very quick return on investment. "MISSION is a perfect fit for our company and I am very impressed with the XML integration, paperless office and document management features," he says.

Joyce is also pleased with the way Advance Computing has built a framework around the application for managing security, printers, Windows integration, backups and other housekeeping tasks. "It's all very streamlined," he concludes.

Trevor Goode, General Manager at The Banksia Financial Group, one of the IBM i customers, regards reliability as one of the

"We already implemented iPhone integration for our own technical staff."

biggest attractions of the combined IBM i, MISSION and LANSA technology. "We prefer the stability of the IBM i environment," he explains. "The hardware is reliable and the software is reliable as well. We just don't have any downtime." Having said that, Goode is also pleased with the multi-platform capabilities of the LANSA-based solution, as it allows Banksia to offer its 20+ branches and 300+ agents a mixture of Windows client/server and Web access.

Goode notes that the online banking module benefits Banksia and its customers. "It is very seamless and hands free. Online access enables our clients to view and manage their investment accounts from anywhere and is an additional selling point for our products. Plus the site provides us with a platform to publish information for our customers. The online investment facility also drastically reduces the need to send out paper statements."

Windows and IBM Customers

"Being able to offer a scalable solution that can be deployed on multiple platforms has allowed us to expand our market share dramatically," says Martin. "Our customers range in size from new startups that are managing several million dollars with a couple of staff to firms managing in excess of a billion dollars with over 100 staff."

"Most customers run Windows implementations of our software, while some larger finance companies are ideally suited to the IBM i server. LANSA allows us to deliver a scalable low-cost solution on a variety of Windows and IBM i operating system versions that we can support with a single set of LANSA source code."

Martin feels that LANSA has been a major contributor to the fact that his team has always been able to rapidly incorporate ideas and requests that have come directly from customers. "Having set up a good architecture and having a productive tool has made it easy to deliver just about any enhancement our customers have asked for," he concludes.

Company and System Information

- Advance Computing has been a leader in its field for over 25 years. The company's MISSION and CMS solutions are used by finance companies and legal mortgage practices throughout Australia. Advance Computing's professional team also provides network management and support, Web and application development, project management and specialized training courses. The company's retail outlet offers sales and services.
- Advance Computing has formal/certified partnerships with LANSA, Microsoft, Cisco, Apple and HP. For more information visit: www.advancec.com.au

The Americas:
Headquarters – Chicago, USA
Tel: +1 630 874 7000
Email: info@lansa.com

Europe:
Headquarters – London, UK
Tel: +44 1727 790300
Email: info@lansa.co.uk

Asia Pacific:
Headquarters – Sydney, Australia
Tel: +61 2 8907 0200
Email: info@lansa.com.au

www.lansa.com

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