



## Silverlight Portal Application Helps Bank Make Faster, Better Investment Decisions

### Overview

**Country or Region:** Australia

**Industry:** Financial services

### Customer Profile

National Australia Bank provides retail and business banking, and wealth management services to customers nationwide, and in New Zealand, the United Kingdom, the United States and Asia.

### Business Situation

The bank needed a flexible, web-delivered application to help its institutional banking staff structure and estimate returns on large and complex transactions.

### Solution

NAB's internal development team built a custom application using Microsoft Silverlight 2.0, which was delivered through the bank's Microsoft Office SharePoint Server 2007 portal.

### Benefits

- Reduced process complexity
- Improved staff efficiency
- Delivered powerful new features
- Provided rich user interface
- Halved development time

"Under the old model, it could take up to a day to complete a complex pre-deal pricing calculation. Now we've got that down to about half an hour."

Phil Gadzinski, Project Director, NAB

National Australia Bank (NAB) is one of Australia's 'big four' banks. Its institutional banking division provides financing for large public- and private-sector projects across Australia, Asia, New Zealand, the United Kingdom and the United States. The bank was looking to replace a legacy application that it used to structure and estimate returns on deals, because the application was inflexible and expensive to maintain. After evaluating a range of options, NAB elected to write its application using Microsoft Silverlight and deliver it online through a Microsoft Office SharePoint Server 2007 portal. It provided much greater flexibility for staff when structuring deals, for example by ensuring that interest rates and charges could easily be updated as they changed in the market. The bank's developers estimated it would have taken twice as long to develop the same functionality using other frameworks.

“[The pricing tool] had to be responsive and it had to be delivered through a portal so that everyone who needed it in our local and overseas offices could access it without having to download an application.”

Stephan Dekker,  
Project Technical Leader,  
National Australia Bank

## Situation

National Australia Bank (NAB) is one of Australia’s ‘big four’ banks and provides retail, business and private banking, and wealth management services to customers around the country. It also owns banks in New Zealand, the United Kingdom and the United States.

The bank has approximately 900 institutional bankers around the world, who provide a range of structured financial products and services for large private- and public-sector projects. Their job is to choose what loans the bank should make to ensure it achieves target returns on capital. To help with the transaction assessment process – and, in particular, estimated returns on transactions and clients – NAB had been using a custom pricing application written in Lotus Notes. By early 2008, the shortcomings of this application were becoming apparent.

“It was quite unwieldy – bankers had a lot of trouble using it – and it was inflexible in terms of integration and parametric changes,” says Phil Gadzinski, Project Director, NAB. “Getting the pricing right in a transaction is very important—the main reason we do pre-deal estimation is to make sure we choose the right deal.”

Specifically, the bank’s pricing application was expensive to maintain and it needed to be modified each time market conditions changed.

“If a benchmark interest rate or liquidity coverage charge changed, it could take six to eight weeks to update the application,” says Gadzinski. “In the meantime, users had to undertake their own calculations and rejig their figures to get the right answer. It could take a day

to estimate returns on a deal anyway, but if these parameters changed, it could take extra time to do the recalculations. The tool needed attention.”

## Solution

NAB started thinking about a replacement for the pricing application. After eliminating some off-the-shelf options, the bank set out some requirements for a custom-built application.

“The application had to be responsive and it had to be delivered through a portal so that everyone who needed it in our local and overseas offices could access it without having to download an application,” says Stephan Dekker, Project Technical Leader, NAB.

“Business requirements dictated the ability to make changes on the fly, particularly to rates and charges,” adds Gadzinski. “We also wanted the ability to add new products for clients without having to recode the application.”

NAB Solution Architect Steve Argiriou, and Project Technical Leader at the time Julian Hedt identified four main options for building an interactive pricing centre application that could be delivered through a portal: Flash, Java, Microsoft ASP.NET or Microsoft Silverlight.

“They looked at Java and Flash and briefly considered using ASP.NET but once they knew that Silverlight was coming out, it became pretty obvious that it would be the best platform,” says Dekker.

Silverlight is a framework for creating rich media and business applications for the web as well as desktop and mobile devices.

“Because the calculation is so quick, we’ve lowered the cost of setting up a transaction.”

Stephan Dekker,  
Project Technical Leader, NAB

“Silverlight would give us a fluent programming experience because of its rich toolset,” says Dekker. “In addition, it lets you program in Microsoft C#, and we already had development experience working with that language.

“Traditionally you can have a client application where things happen automatically; or you have a web-based application where you have a round trip to the server and you have to wait for it to reload, and the navigation is usually a bit awkward. With Silverlight, you can combine the two. You can deploy the application over the web but you still get the rich user experience.”

The application was delivered through the bank’s Microsoft Office SharePoint Server 2007 portal. To test the application’s functionality and performance, NAB used WebAii, a library for web automation that plugs into the Microsoft Visual Studio development environment.

“With Silverlight you need to have a very clear design and that propagates through into a much better user experience,” says Dekker. “In our application, if the bankers make changes in one area, they can see the effects in other areas straight away; the users love that.”

A key feature of the new application is the ability to modify important details without having to rewrite the code.

“The business owners can open up a table and plug updates straight into the application, and we can see the impact of those changes immediately,” says Gadzinski.

NAB’s team of five developers took six months to develop the pricing application. It went live in December 2008.

## Benefits

According to Gadzinski, the financial benefits outlined in the original business case were all achieved, and were well within set parameters for returns on investment.

### Rapid application development

One of the principal benefits was realised during development. Working in Microsoft C# meant NAB’s developers didn’t have to learn a new programming language as well as a new application environment. This significantly reduced development time.

“It would have taken us at least double the length of time to put this application together in any other environment,” says Dekker. “For instance, there’s a module that gives real-time rating information to the bankers while they’re putting together their deals. Silverlight made it really easy to put that information into charts. That would have taken us a lot longer to develop in other systems.”

### Efficiency gains

In practical terms, the ability to update rates and charges on the fly has eliminated the need for NAB institutional bankers to manually recalculate pricing and return figures.

“Under the old model, it could take up to a day to complete a complex pre-deal pricing calculation. Now we’ve got that down to about half an hour,” says Gadzinski. “The efficiency gains are enormous because bankers can concentrate on other important tasks such as servicing our customers.”

## For More Information

For more information about Microsoft products and services in Australia, call 13 20 58 or visit [www.microsoft.com](http://www.microsoft.com)

For more information about NAB products and services, call 13 22 65 or visit the website at: [www.nab.com.au](http://www.nab.com.au)

Having the same tool available to all relevant staff across the bank's global operations has ensured NAB has relevant, comparable criteria to make decisions.

"We now have a globally consistent platform where an application can be benchmarked against another one anywhere in the world," says Gadzinski. "We have the information to ensure informed decisions are made by our Transaction Approval committees. It has improved transaction transparency across the Institutional Banking division."

### A more powerful tool

Now that NAB staff can make fast and reliable calculations, they are more likely to try out a range of options when structuring a transaction.

"Because the calculation is so quick, we've lowered the cost of setting up a transaction," says Dekker. "As a result, staff are more likely to try 'what-if' scenarios. They'll say, 'If I change this value, what happens to my deal?'"

"The new application gives us the ability to structure transactions in a way that we couldn't before," says Gadzinski. "We now have dynamic pricing capabilities and we can try structuring a trade a number of different ways to see what works best for the customer and the business."

### Microsoft .NET

Microsoft .NET is software that connects people, information, systems and devices through the use of Web services. Web

services are a combination of protocols that enable computers to work together by exchanging messages. Web services are based on the standard protocols of XML, SOAP and WSDL, which allow them to interoperate across platforms and programming languages.

.NET is integrated across Microsoft products and services, providing the ability to quickly build, deploy, manage and use connected, secure solutions with Web services. These solutions provide agile business integration and the promise of information anytime, anywhere, on any device.

For more information about Microsoft .NET and Web services, please visit these websites:  
[www.microsoft.com/net](http://www.microsoft.com/net)  
[msdn.microsoft.com/webservices](http://msdn.microsoft.com/webservices)

#### Software and Services

- Microsoft Silverlight
- Microsoft Office SharePoint Server 2007

#### Hardware and Technologies

- Microsoft .NET Framework