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Performing Under Pressure: IT Execution in a $1.4bn Business Transformation

Teaching Cases

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Abstract

This teaching case provides a practical illustration of the challenges in executing large-scale IT-based change. It describes how the Commonwealth Bank of Australia replaced its service and sales systems between 2003 and 2006 with the goal of collating a "single view of client". The case is an exemplar of staged incremental development. The sponsor set up multiple work streams and ran them as independently as possible. Regular releases delivered incremental change to the business, incorporated lessons learned, and added further functionality. This had implications for architecture, software development, training, testing, and risk management. There were significant change management challenges.

The case provides students with insights into program management in IT transformations, architecture, project management, software delivery lifecycles, risk management, logistics and IT infrastructure.

Keywords: architecture, project management, software lifecycles, risk, logistics and IT infrastructure

Introduction

The Commonwealth Bank of Australia (CBA) built an IT platform to enable its $1.4bn IT-based business transformation. The transformation's strategy was to '*excel in customer service*', which would require a new technology delivering a '*single view of client'* across business units, products and channels. This case study follows the team developing its scope, architecture, project approach, risk management, software and change management. The $200m IT component, CommSee[1], was a great success.

Business Context

Globally, CBA's market capitalization places it in the top twenty-five banks and it is twelfth for pre-tax profit (Lambe 2009). It has fared well during the global financial crisis and is now the twelfth safest bank (Keeler 2009).

By Australian standards, CBA is a mature and large bank providing a full range of banking services (see Table 1). Internally, CBA has three customer-facing business units that receive support from central functions such as Group IT. Each of the business units are large organisations in their own right. Retail Banking Services (RBS) is the most visible part of the bank and has Australia's largest distribution network. Premium Business Services (PBS) offers institutional, corporate and business banking along with private banking services. It includes Australia's largest stockbroker – Commonwealth Securities. Insurance and Investment Services (IIS) offers typical products and includes Australia's largest wealth manager – Colonial First State.

Table 1: CBA by Numbers

	Number
Founded by Federal Government	1911
Privatised with ASX listing	1996
Retail, business, corporate and institutional clients	>9m
Members of staff	33,000
Branches	>1,000
ATM's	3,200
EFTPOS terminals	>155,000
Active online clients using internet banking services	>2.5m

IT Environment

In 1997, CBA outsourced nearly all its IT to Electronic Data Services (EDS)[2] in one of the world's largest contracts of this nature (Boyd 2002). A small team of people remained to oversee the contract and maintain strategic direction. Starting in 2000, CBA began to rebuild some internal IT capabilities. However, in 2003 it still relied on its vendors to run many parts of IT (Willcocks et al. 2007).

As with most financial services organisations, CBA's systems evolved separately for different products, channels, and business units as the industry and technology changed (see Figure 1). These core systems ran on mainframes and had some code that was so old the programmers had written it in assembler before COBOL was a viable alternative. The systems were reasonably consolidated, efficient and reliable but not flexible. The branch systems were old and ran on Windows NT and proprietary security hardware. Internet banking was using EonTec, which was the new standard for future banking systems. PeopleSoft, Siebel and Onyx packages were under evaluation for customer relationship management (CRM) requirements.

The business units shared much of their IT such as desktop PC standards and networks. RBS took a leadership role in core banking systems and IIS in insurance and wealth management systems.

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[1] CommSee is the name of both the software platform and the in-house project that designed, developed and implemented the platform.

[2] EDS is now HP Enterprise Services.

Figure 1: Banking Architecture Evolution
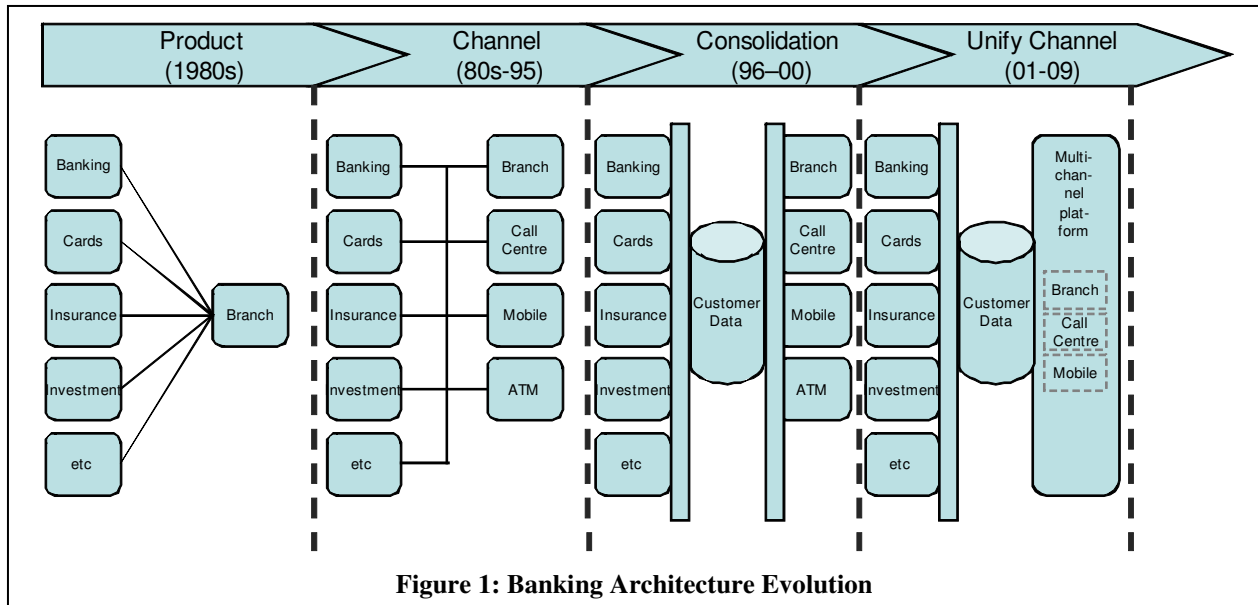
Inside PBS was the IT-savvy stockbroking business, Commonwealth Securities. Having a separate business unit IT team in this type of integrated bank is relatively common (Wood et al. 2007). John Beggs led the stockbroking business with an IT team that worked in a dynamic fashion. The team delivered by building a flexible IT platform and incrementally adding business applications. This team was already building applications outside of the stockbroking business. The team had developed a small customer relationship management (CRM) system, Republic, for PBS clients. By 2003, Republic was on its third release and supporting quarter of a million PBS clients with CRM and mortgage origination[3] functionality. The team had used Microsoft tools although Republic had yet to migrate to Microsoft's most recent .Net environment.

CommSee's Cross Business Unit Requirements

CommSee was to present a client's complete set of product holdings and services across all of the business units. It would record all client interactions so that in later interactions, across any channel, the operator would know the history. To achieve this, the CommSee project team would have to tackle data, software, hardware, business processes and change management. The team would remove millions of duplicate client records and produce a single client identifier. New software, replacing the legacy branch teller and service assistance systems, would integrate product and workflow systems to provide a single source of truth, and present a consistent user interface across business units and channels. The software would be easy to use with role-based functionality.

From a hardware perspective, the project would replace seventy thousand pieces of equipment in all business units and across one thousand four hundred locations. Core business processes such as sales and origination would require re-engineering. CommSee would require training for twenty-one thousand people.

Lending origination would be the first business process to benefit from CommSee. This process covered mortgages, personal loans and credit cards for both retail and business customers. The process spanned client capture through application and verification to fulfilment. CommSee would also include process control. Figure 2 presents the scope and relationship with other systems.

Two other significant business benefits were in the Insurance and Investment Services (IIS) business unit. One IIS strategy was to bundle and cross-sell IIS insurance with Retail Banking Services (RBS) mortgages. In June 2004, IIS' CommInsure business initiated the bundling of home, contents and loan protection insurance into the CommSee mortgage origination process. There was to be a progressive delivery across CBA as part of the CommSee rollout.

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[3] Origination includes the sales processes of client identification, application and verification, but excludes fulfilment and ongoing servicing.

Another IIS strategy was to improve advice consistency across sales processes. This would also improve regulatory compliance. The strategy covered three thousand advisors within CBA branches and tied third-party companies[4]. This presented a challenge because CommSee's design supported only CBA's staff. So, IIS and the CommSee team decided to use the COIN, a commercial off-the-shelf package, for IIS sales processes. . The CommSee and IIS teams developed a two-way data feed between COIN and CommSee to meet the single view of client requirements.

Client capture	Application	Verification	Fulfilment	Service
Capture base data • Client ID reference (Name,…) • Client contacts (Address, Communication) **Capture relationships** • Client related person • Related corporate entities **Capture financial position** • Client income composition • Client assets portfolio • Client expense portfolio • Client obligations portfolio • Client financial position documents • Client employment history • Capture relevant client consents • Capture authorities • Capture overall anticipated CBA exposure	**Present general product options** • Display/print general product options • Perform need assessment **Present specific product offer** • Calculate fees (schedules) • Calculate what-if scenarios (Change in conditions) • Provide specific product offer to client **Capture security/guarantee data** • Security specifications • Security titles • Security documents • Guarantor info *(RBS) (PFS) (IBS)* • Statutory report • Capture loan purpose data **Capture condit. offer acceptance** • Provide process instructions/advice • Capture accepted/declined offer **Open transaction account** • Open transaction account • Capture account documents	• Verify documents authenticity and completeness • Verify signatures *(RBS) (PFS) (IBS)* • Confirm company details **Verification of security** • Source valuation documents • Perform valuation • Initiate + capture external valuation process • Confirm title details **Assess credit risk** • Calculate credit risk • Execute scoring • Initiate + capture external credit assessment • Check account conduct • Fraud check • Verify servicing ability • Employment check	• Capture formal acceptance • Generate schedule (contract) • Generate security documents (incl. guarantees) • Arrange insurance • Provide contract documents to client • Perform trust investigations • Execute Stamping + Registration **Funding** • Arrange funding • Inform client about funding **Settlement** • Arrange settlement • Determine settlement instructions • Confirm settlement instructions • Execute settlement • Archive document • Open product account • Provide card	• Control collection

SSV initiative role
■ Implement UI[2] and functionality in CommSee
▨ Implement UI in CommSee and integrate external functionality
▤ Implement UI in CommSee and coordinate resolution of functionality source
(IBS) Indicates BU where specific scope applies
(front) Refers to client facing activities (process control)
(back) Refers to back office activities (process control)

Process Control and Services				
Referral/Contact management • Internal follow-up • Referral to other product • Follow up with client • External referral	• Record client interactions	*(front)(back) (front)(back) (front)(back)* • Process tracking/controlling • User/task management • Automatic escalation • Status overview & notification • Process history *(RBS) (PFS) (IBS)*	**Reporting**	**Document handling** • Generate (outgoing) documents • Digitize (outgoing + incoming) documents *(RBS) (PFS) (IBS)*

Note: High level representation of SSV initiative responsibilities, as at 30-03-04. Service is out of scope. (1) HL, PL, CC, Business lending except asset finance
(2) User interface

Figure 2: CommSee's Scope for Lending Origination

Technology Selection

CBA's traditional approach to such a project was to outsource development and manage the project as a waterfall flowing from requirements, design, development and testing through to deployment and training. The timescales were a challenge. The Which New Bank strategy relied on the new platform being available in two and a half years. Over a billion dollars of other investments were depending on CommSee's timely delivery. The estimates were twelve months for agreeing requirements and contracting a supplier. At the back-end, twelve months for deployment and training. That left only six months in the middle for design, development and testing. CBA needed a new approach.

For Beggs, leveraging Republic was preferable to commercial packages because it already integrated with many back-office systems, the staff approved of the user interface and there would be no lengthy procurement process. This argument convinced the CEO. The announcement that Republic would be the base for CommSee did not receive universal support. There were concerns that Republic could provide only a small part of the solution, was incompatible with bank standards, and that the technology would not scale to service CBA's needs. Adopting Republic would require rewriting most of Republic and changing the CBA's standards. It was also unclear whether the development approach would work for such a large program. More specifically, there was concern over the team's experience in developing 'bank-grade' systems.

> They are a bunch of really bright techos working on CommSee, not a lot of them with grey hair, who love building things and its really cool to do. However, until you see these implemented on a scale basis, you only know what you know. It would be nice to see two or three of them, who had done it before and seen it done wrong. *Group Technology Executive*

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[4] In an exclusive arrangement, a tied financial advisor can recommend the financial products of only one bank.

> They are now the internal development shop of CBA. They were developing one solution for one channel and now scope has suddenly just grown 3000%. *RBS IT Executive*

Microsoft's role would be critical. Microsoft was a critical supplier because the underlying development environment and middleware that the team was familiar with was .Net and BizTalk. The team would need to update to the newer .Net environments and leverage additional Microsoft products. The head of Microsoft's financial industry group offered to sponsor the project and Microsoft chair, Bill Gates, provided his support for the initiative when meeting with CBA executives in Sydney.

> We worked with them to understand what Microsoft's current approach is in certain areas. What are their particular recommendations, what are they working on in the next release? We were aligning ourselves for any of their particular enhancements over the next ten years and trying to leverage off some of their expertise. *CommSee Development Manager - Matt Comyn*

Microsoft offered eight local specialists and a lead architect in Seattle for three months. This team would coordinate up to twenty subject matter experts in Seattle. There would also be stress-testing facilities through the Testing Enterprise Engineering Centre. Finally, there would be a formal review to ensure that the development was consistent with Microsoft's future platform strategy.

IT Architecture

The design of the solution architecture included a layered approach providing front-end presentation, workflow, common business functions and core systems integration.

> We are trying to engineer a lot more isolation so that the dependencies are far better known. *CommSee Development Manager, Matt Comyn*

Rob Morgan, the lead architect ran a series of workshops exploring the business processes and requirements. He also engaged with RBS's team redesigning some core mortgage processes.

> In terms of the architecture, the middle tier needs to deliver a reasonable set of abstracted services that you are going to use in the front end. You want to reuse these in constructing new products and new business processes. *CommSee Architect, Rob Morgan*

The front-end presentation layer was a .Net client that ran on Microsoft Windows and could integrate applications in addition to using Internet Explorer for presentation. Emphasising its architectural role, the team called this software the Harness. The Harness could also manage local devices and enable standalone operation. The Harness would support independent development of multiple software applications. Microsoft was particularly helpful with this software.

The workflow would automate and managed the delivery of tasks from person to person across locations as a process executed. Work Item Management (WIM) was to be an Oracle server based system that would present task lists through the Harness. The common business services layer would provide a set of services or transactions, including retrieving core information, and updating customers' accounts and contact details. The core integration layer would present reusable Web services that allowed the front-end and other applications to access functions and information in the core systems (see Figure 3).
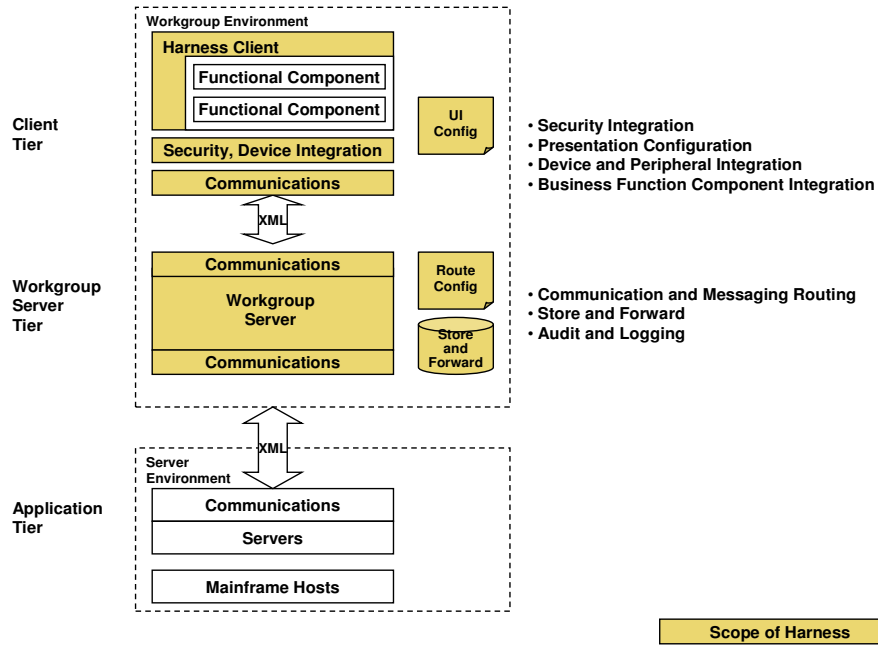
Figure 3: A flexible architecture

The new architecture allowed rapid integration and a continuous build cycle:

> In the new architecture, we have introduced some new tools that have been built over the last few years around continuous integration. They allow you to do a build three or four times a day rather than once every three or four weeks. *CommSee Development Manager, Matt Comyn.*

Project Lifecycles

The CommSee team was under pressure to deliver on time. The pressures were sufficient that if the IT platform were not available when the business projects required it then the business units would build their own IT. They would use existing legacy systems and a single view of client would not be possible.

Leveraging their experience with Republic and re-using some of the Republic software source code, the CommSee team adopted an incremental approach to delivery. This approach involves forward planning the next two to three releases in detail within an overall long-term architectural framework (Figure 4). It delivers a pipeline of change and incorporates learning from previous releases. The systems are in production early but with strong testing disciplines for each release. The team conducted formal release testing and developed both deployment and change management plans.

In this staged incremental approach, the team does not gather all business requirements up front and initial system implementation trades off functionality for early delivery. Often the initial implementation has less functionality than the legacy systems they replace. The new systems may have defects and require manual workarounds. However, business and users have an opportunity to see and use the software early and have ongoing
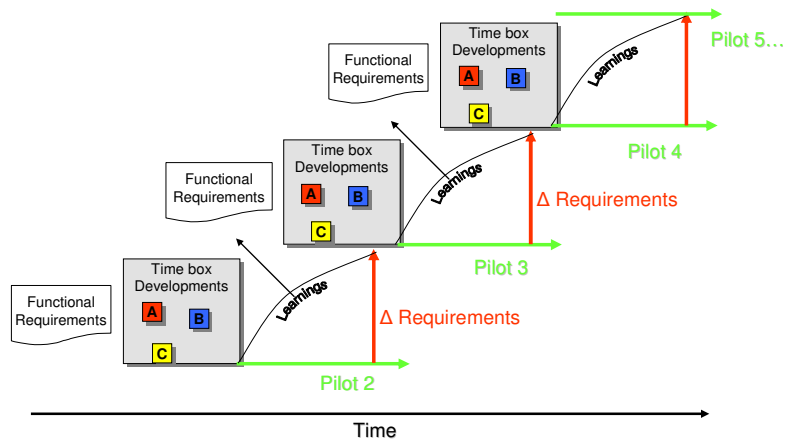

Figure 4: Staged Incremental Approach

input into its development.

Implementing this approach required reframing how the business and IT staffs expected to gather requirements and deliver new systems (Reynolds et al. 2010). In general, the business units were unfamiliar with this approach and its effect on them. The business units expected a full solution design followed by the use of proven technology. Typically, there would be a large vendor standing behind an appropriate contractual protection. The business would receive the full scope definition, user requirements and detailed project plans. Further, they would control the testing and implementation in their own business units. With CommSee, business units could not see how it would work for them in advance, someone else in the bank was running the project, and coding had already begun!

Notwithstanding positive comments and views of the project team, some executives' early impressions were that the project was out of control. The resulting conflict threatened the program.

> The best practice in the world says that you get your planning done correctly, upfront, and focus on your business strategies and your business processes, as inputs to doing your plan. Of course, in a small environment, or in highly creative one, you can be more iterative if you operate within a tightly defined boundary. Iterative does not work when you have multiple integrated large-scale systems.
> *RBS IT Executive*

> We have a very large ambitious intent coupled with quite diverse views in the organisation about the best way in which to conceive and execute a program like this. There is an almost quasi-religious divide around the right way in which a program like this should be executed. *Group Executive, Retail Banking, Hugh Harley*

Governance

Governance of the CommSee project differed from the usual CBA approach. CommSee was to deliver a new platform for all of the business units with the first impacts mostly on Retail Banking Services (RBS). Traditionally the CIO's central IT function would have developed a shared IT platform. If viewed as a business change then RBS would have been a candidate for running the project. However, the project team's background was in Premium Business Services (PBS) and this is where it stayed. RBS and Group IT were to focus on their own change programmes and running their businesses. They would support and interact with the CommSee team as necessary, with RBS prominent in change management and Group IT in architecture.

Beggs had a programme director role and reported to Mike Katz, the sponsor and group executive leading PBS. The project reported through Katz to CBA's Executive Committee, which the CEO chaired. Katz set up a risk review team reporting independently directly to him.

Risk Reviews

The sponsor established an extensive risk review process to look across the different work streams. The risk reviews occurred regularly and identified the top-twenty risks, assigned owners and put mitigation plans in place. The risk team reported independently to the sponsor. Figure 5 shows the top risks that the team identified in the lead up to Release 7 in November 2004. Release 7 was the first release capable of supporting all branch operations.

TOP Risks	TOP Risks
1. Technology a) Technical components cannot integrate or be made to work together by 30 November 04 b) Harness may not have scalability or performance c) Excessive bandwidth required due to issues with the application design and architecture d) Unproven/untested technology resulting in performance and reliability issues e) Inappropriate levels of access/delegations incorporated within the system f) Operational risk to branch operations and customer service **2. Testing** a) Insufficient time allocated to end to end testing **Project** **3. Change Management/Internal Controls** a) Releases not planned in a manner that allows sufficient time for testing and training b) Controls not embedded within the platform and operational processes c) Unacceptable level of disruption to customers **4. Implementation** a) Too much time on technology/Not enough focus on operational aspects resulting in roll out issues impacting staff and customers b) Assist release timetable risk	**5. Governance** a) Role and representation on the various committees and working groups may not be appropriate to ensure appropriate engagement in decision making and steering b) Inadequate amount of detailed planning at work stream levels resulting in risks/dependencies not being fully mitigated **6. People** a) Key person risk **7. Communication and Engagement** a) Communication is not consistent across the program resulting in inadequate engagement at the sub stream level **Business** **8. Strategy** a) Lack of clarity around the end product resulting in misalignment between scope and business objectives b) Those involved in the ongoing maintenance, support and ownership of the systems are not adequately involved in the planning and roll out activities **9. Costs and Benefits** a) Commercial benefits not understood or realised b) Ongoing costs make the platform uneconomical c) Customer experience is not significantly improved d) Commercial risk from lack of clarity around the sourcing strategy

Figure 5: Top 20 Risks

An early risk review identified emerging issues that were hindering effective CommSee implementation. The interviewees had made some sixty references to various types of risk. Table 2 presents the nine risk categories identified by four or more people in the business units.

Table 2: Major Types of Identified Risk

Type of Risk	Example[5]
Governance	'A lack of transparency around decision-making'
Technical Complexity	'You actually get gridlocked pretty fast. Logistics is a huge issue on this program.'
Project Management	'I guess that there is a risk there about the level of experience with projects of this scale.'
Scope Definition	'What are we really walking in to? Do we really understand it?'
Enterprise Co-ordination	'So, how the hell do you do that plus meet targets already agreed with the CEO … You run the risk of losing focus, when you can't prioritise, and you can't get clarity.'
Business Unit Relationships	'… the risk that the organisation continues to see it as a single business unit project is huge. This will adversely affect the ability to build buy-in.'
Communication	'… there are so many questions outstanding. There is not enough visibility of process, plans, scope, timeframes, etc. Maybe all of those things are coming but you don't actually see a plan for when they are coming.'
Resource Allocation	'There is a risk that key people will leave the project – they won't put up with the internal fighting.'
Technology	'Our experience was that the infrastructure that was actually out there was different from what people thought and it couldn't support our project.'

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[5] The quotes have received edits, including combining phrases from different interviewees to protect confidentiality.

The first round of risk reviews articulated how the CommSee team's approach was different to the traditional waterfall approach. While each approach was complete in its own right, each approach would produce different artefacts and different risks. Table 3 illustrates the communications issues and relative perceptions of risk.

Table 3: Comparison of Incremental with Waterfall Approaches

	CommSee's Incremental	CBA's Traditional Waterfall
Scope	Define only the core solution and be willing to evolve later.	Scope the full solution and then determine phasing.
Requirements Gathering	Simply replace the existing functionality and then collect the next set of business requirements.	Define full business requirements across segments, channels and products.
Delivery	Use an incremental delivery approach in small releases scaling up over time. Build functionality through multiple teams across business units but complying with bank-wide standards for integration with other functionality within the Harness. Set release schedule early and build only functionality that the time-boxes can deliver. Prioritisation considers the value and visibility to users. When functionality is not ready, the team de-scopes or defers features to the next release.	Develop a full solution, followed by testing, roll out and migration. Allocate build to external vendors with one vendor responsible for overall delivery. Deliver specified functionality within a general delivery time target. If the team cannot meet the date then they delay the release.
Test	Invest in automated test tools. Implement end user testing through selected power users.	Enforce stringent order of testing for fully defined system in all testing processes.
Change Management	Define a pipeline of change that is consistent with ability of the staff to absorb & apply it quickly.	Change large process at a given time. Conduct extensive training to build capacity for change.

Looking through their traditional waterfall lens, many business unit managers were not seeing the actions and artefacts they would expect from an initiative of this size and complexity. Moreover, neither group recognized that the other group did not share their framing and interpretation of situations and issues. Consequently, communication between the two groups was poor. In particular, business unit managers were raising risks that CommSee managers rejected as unimportant. The different assessments were a direct consequence of the assessors' different frames.

> I thought that [the risk review] was very good in articulating for the first time to the organisation exactly what the execution and implementation method was in CommSee. This is clearly very different from the current traditional approach of scope, design, build, test and implement. It helped join the dots for many people, including myself, about what was the real intent of the implementation approach. *Group Executive, Retail Banking, Hugh Harley.*

The risk review helped the CommSee team and the business units understand the new approach and that multiple delivery approaches could apply.

> I think other people in the organisation saw these approaches to fixing problems as radical and it frightened them, but as they got to understand a little better they realised they are not quite so frightening after all, and they should probably just get in there and make it work. *Group Executive.*

Systems Development and Testing

The initial CommSee development approach had close collaboration between CommSee business analysts and developers, and the front line staff. A major challenge was to retain the connection with the end-users to keep CommSee centred on end-user needs.

> When we did the original build, we dragged people out of the centres and sat them down beside the developers and said, 'Well, how do you do this? What do you use it for?' We worked with the user in putting together the original requirements. As it gets bigger, it gets a little bit harder because the requirements come through the work streams. This means that you do know what the original statements were or how much filtering has taken place. *CommSee Project Manager, John O'Donnell*

The developers worked closely together for long hours and developed a strong team spirit. The close collaboration and communication enabled rapid development with few bugs:

> I can remember very well the first big iteration of Republic. There were maybe forty of us with twenty being the developers. We sat in a tiny space and you could literally hear every single thing that was going on. We had dinner together every night. It was ridiculous working here – but everyone knew everything that was going on. So, we managed to test it and get it bug free very, very quickly. *CommSee Development Manager, Matt Comyn*

The team maintained a stable group of core developers throughout the project. Learning from each release fed into subsequent releases:

> We have learnt from our sins of the past. Many of the core people are still here from our first release. Everything that we have learnt over the last few years, we have fed into our approach. *CommSee Development Manager, Matt Comyn*

As the project grew, a separate team led by Tim Whiteley, who was later to lead all CommSee development, established testing and release management processes. HP supplied automation and performance testing tools.

> My area is providing testing, release management and environment management services. Our resources include lots of processes, environments and test tools. The tools add a lot of rigor to the processes. We are continuing to develop more rigor. *CommSee Testing Manager, Tim Whiteley*

A critical element to deal with the continuous build and release process was the automation of testing. CommSee acquired testing tools to automate test scripts, and provide stress testing:
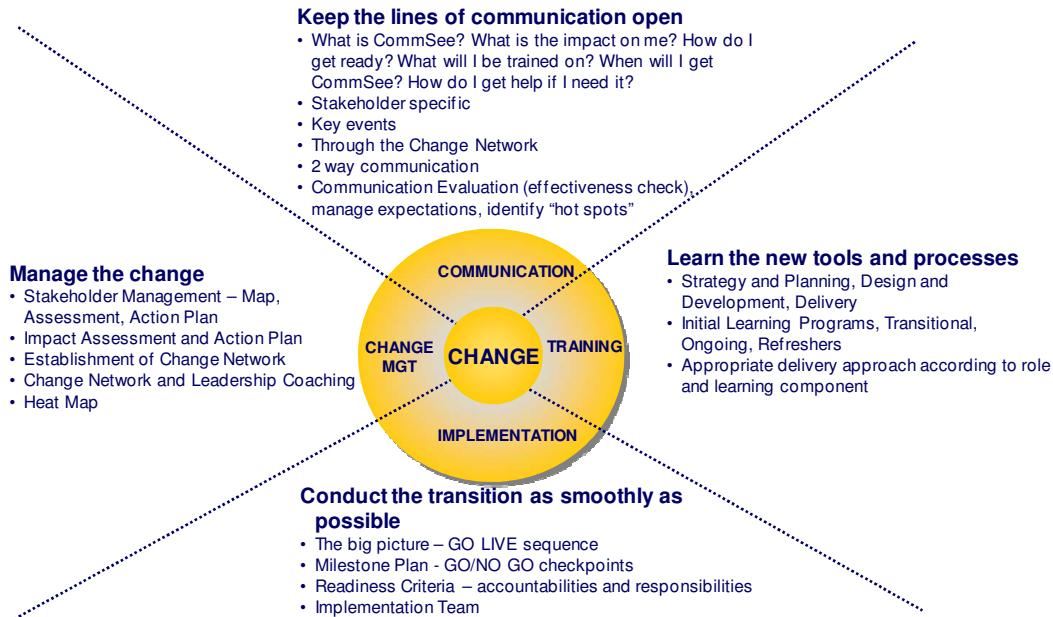
> The tools also give us load stress testing capabilities. We have been stress testing for a couple of releases now. This testing during the loads and referrals release also justified half of what the tools cost. We found a couple of things that would not have surfaced in production for months and would have become major production problems. *CommSee Testing Manager, Tim Whiteley*

Change Management

Jason Millet, who was in charge of implementation, said "The biggest risk we have is appropriate resourcing for the delivery. Not the code cutting, not the testing, not the business analysis but the delivery. And while we hope that the business will develop necessary skills over the next few weeks if that doesn't happen then there's a significant risk around our ability to capture the opportunities that CommSee presents to us and embed them in the environment."

Managing this challenge was a team focusing on communications, training and implementation (see Figure 6). The pace of change was significant. The front line members of staff were anxious for new tools, but did not want too much change at once to overwhelm them.

On the one hand they clearly want the best tools and the best supporting technology. On the other hand, being human, you can only absorb so much change in a given time. I am often faced with the paradox of people saying, 'When are you going to fix this? We are sick of this stuff.' On the other hand, 'You try to change too much; you are making us learn too many skills at the same time.' *Group Executive, Retail Banking, Hugh Harley*

Keep the lines of communication open
- What is CommSee? What is the impact on me? How do I get ready? What will I be trained on? When will I get CommSee? How do I get help if I need it?
- Stakeholder specific
- Key events
- Through the Change Network
- 2 way communication
- Communication Evaluation (effectiveness check) manage expectations, identify "hot spots"

Manage the change
- Stakeholder Management – Map, Assessment, Action Plan
- Impact Assessment and Action Plan
- Establishment of Change Network
- Change Network and Leadership Coaching
- Heat Map

Learn the new tools and processes
- Strategy and Planning, Design and Development, Delivery
- Initial Learning Programs, Transitional, Ongoing, Refreshers
- Appropriate delivery approach according to role and learning component

COMMUNICATION

CHANGE MGT | CHANGE | TRAINING

IMPLEMENTATION

Conduct the transition as smoothly as possible
- The big picture – GO LIVE sequence
- Milestone Plan - GO/NO GO checkpoints
- Readiness Criteria – accountabilities and responsibilities
- Implementation Team

Figure 6: Transition Approach

The structured change management process consisted of three components. The first was a network of change conscious people in the business. Their role was to build awareness of CommSee, manage change issues, and lead change during the implementation.

The second component was business impact assessments. Each business impact statement identified the level of impact on technology, people or process Each impact statement had a clear set of actions, accountabilities concerning communications, training, stakeholder management, policy, procedures and workaround development. They were useful in minimising disruption to business as usual during the implementation.

The third component was heat maps, plotting change across geography, branches, support centres and reporting levels. They were a useful tool to help remove some of the risks related to capacity for absorbing the change.

Communications and Training

The communications process focussed on informing key stakeholders, setting realistic expectation, generating enthusiasm, building buy-in and gathering feedback. An early challenge was communicating on one page the changes that CommSee would bring (Figure 7).

Training had the challenge of multiple releases, with each release delivering new functionality. This meant that training had to cover both new users and incremental training for existing users. Training for new users was predominantly face-to-face. For existing users, the CommSee team made extensive use of on-line training.

The training team integrated tightly with the change management and communications teams and in close cooperation with the applications delivery teams. The training team had to understand the emerging functionality and limitations of each release (See Figure 8).
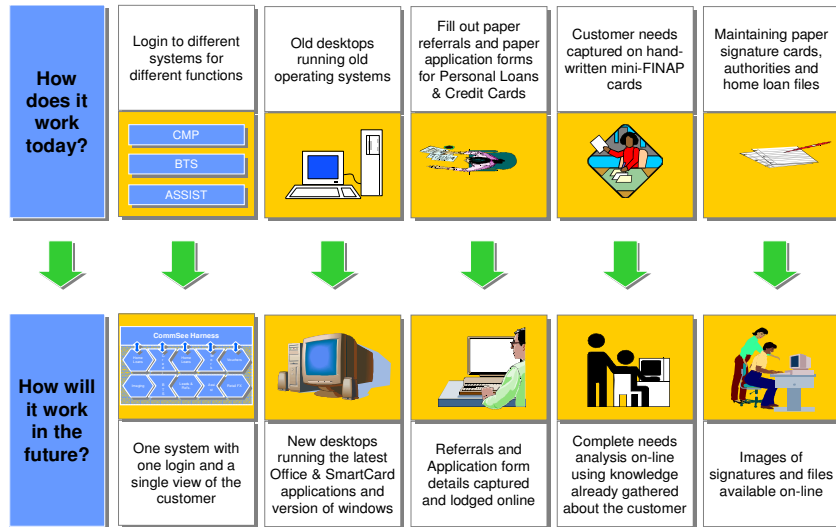
Figure 7: Communications brief

Training for the 21,000 members of staff reflected different types of jobs and varied in length. Typically, it took less than two days. This resulted in 31,000 training days, delivered by a team of 33 lead trainers, 30 technical staff and 66 in-branch support staff. The area offices, regional support teams and the CommSee Help Desk provided additional support.
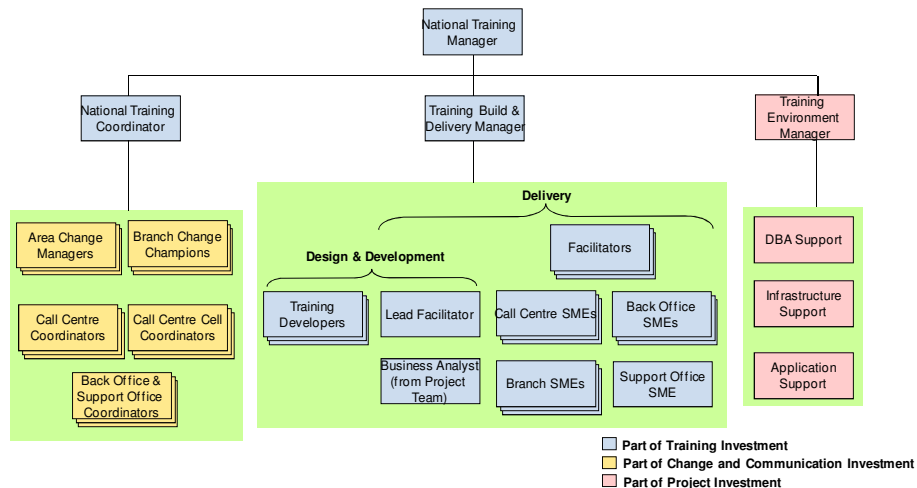

Figure 8: Training Coordination

Implementation

Replacing and upgrading of infrastructure across branches, call-centres and processing centres would require over a thousand site visits. There would be long supplier lead times and tight dependencies on supporting data centre infrastructure. Deployment would leverage the RBS, PBS, IIS and EDS' staffs.

By June 2004, the CommSee rollout plan was complete and included detailed transition phases and task sequences. The team updated the national rollout plan for each release. This included what was in and out of scope, the areas affected and number of users, contingency and rollback plans, training and learning requirements and implementation schedule.

Figure 9 presents the standard timeline for implementation at each branch. The team conducted training in the ten-day period before implementation. Training was in streams reflecting the various roles, resulting in no more than 6% of staff being off-site per day.
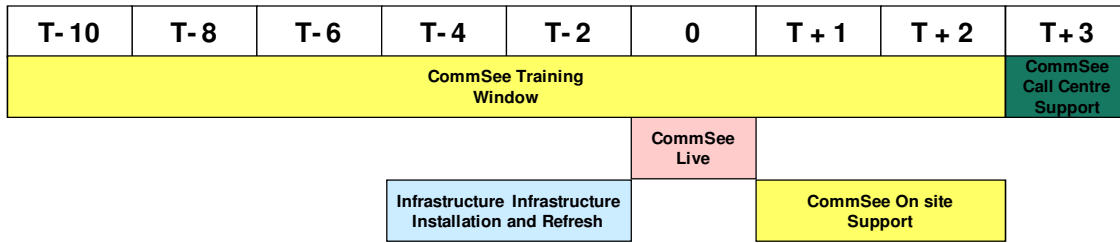
T-10	T-8	T-6	T-4	T-2	0	T+1	T+2	T+3

Figure 9: Standard Branch Upgrade Timeline

Releases

The first release was in February 2004 and provided a pilot in Tasmania, Australia's smallest state. The pilot solution operated in parallel with existing systems. For example, it simply launched the old Branch Teller System rather than replacing or interfacing with it. This was Release 4 rather than Release 1 to recognise the earlier releases of Republic in PBS. Releases 5 and 6 added more customer service features and workflow management. The changes did not affect IIS but instead RBS and PBS.

Significant work remained to define the requirements and approach for the removal of paper-based vouchers, which was to be a major improvement. Development of this functionality would require the complete porting[6] of the Branch Teller System (BTS). The porting kept the team busy until December 2004. Release 7 in December 2004 was the first full solution. Once BTS porting was complete, work could commence on removing the paper vouchers. This began in January 2005 and was complete in June 2005. Trials for national deployment in the eastern suburbs of Sydney were in the February 2005 Release 8.
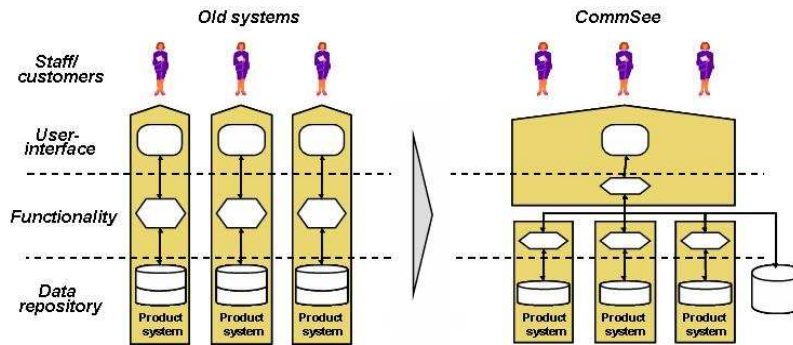

Figure 10: From Silos to Integration

Full national deployment commenced in April 2005 with Release 9. The rollout was to 40 branches and call centres each weekend. Final delivery of the core scope was Release 11 in December 2005. The next corporate strategy cycle led to a subsequent round of CommSee-related business cases. These focused on further leveraging the IT platform and the development team's experience to transform the business and commercial banking activities of CBA.

CommSee had fundamentally changed the shape of CBA's front-end systems (see Figure 10). The technology moved CBA from operating in isolated service silos to an integrated and consistent customer-centric environment across all products and channels.

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[6] Porting is the process of adapting software so that an executable program can be created for a computing environment that is different from the one for which it was originally designed.

The staff no longer checks customer information on multiple systems. CommSee integrates these systems and channels, providing a single view of all of a client's products and interactions.

Benefits Realisation

Embedding CommSee within the business was a constant focus across the project. In the early stages, PBS line managers familiar with the changes brought about by the earlier Republic presented to other mangers across RBS and IIS. Issues included keyboard and mouse skills, a distrust of data drawn from back-end systems, people not recording all details of customer contacts or the relationships between customers, nor understanding the full functionality of the system

The head of the retail distribution network, David Marshall, recognised that while CommSee would deliver a new system, capturing the benefits required it to embed into the 'ecology' (see Figure 11). This involved changes to people systems, management and controls within the business beyond the role and authority of the project team. For example, changing staff job descriptions, training plans, and behaviours, as well their recruitment, management and rewards. RBS appointed a general business manager to be responsible for developing a suite of branch training packages suitable for embedding into the normal branch and call centre training processes. Most branches held these in the morning before the branch opened.
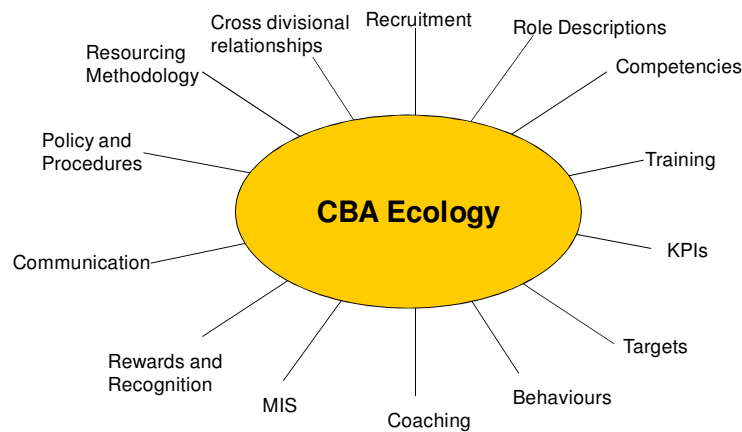

Figure 11: Embedding CommSee into the CBA 'Ecology'

Sustaining the Change

The definition of success was high usage of core CommSee functionality resulting in increased sales, increased customer retention, reduced costs, improved customer experience, improved staff engagement and maintenance of compliance standards. Both internal and external reviewers see CommSee as a success. Internally, people see the business and project outcomes as very successful. The initiative achieved its project outcomes, with delivery on time, within cost and more than the original scope. Comments from executives included, "Achieved much more than we thought possible", "The legacy of CommSee will be a very positive one for CBA", "Genuinely excited. Exceeded expectations."

Externally, an ABN AMRO Analyst report said, "In our view, the system is one of the most advanced banking platforms in Australia. At the very least, the client interaction management module should provide CBA with superior customer retention. Further upside from cross-selling and product management is also possible in our view."

The CEO announced his retirement at the end of 2005. Shortly after the appointment of the new CEO, a new CIO, Michael Harte, took up the role in April 2006. A critical challenge at that time was how to transition from development to business as usual.

Harte spent time meeting people across the technology team, his business peers, and service providers. He highlighted that the technology teams had a great deal to be proud of and that CBA is one of a few financial services

organizations that have seriously invested in technology and proven they can deliver. However, it was clear that there was a gap between the central IT groups and divisional IT groups.

To integrate the teams, Harte announced a new IT structure with all IT functions in the central IT group, which he renamed Enterprise Services. The new structure reflected the business units with a focus on each of the business unit CIOs and on business systems thinking capabilities. It included a single Enterprise IT Solutions group, composed of the former Enterprise Systems and Architecture groups and centralising the CommSee and Colonial solutions groups. There was a single Enterprise Operations group to support the business unit CIOs. CIO support functions included governance, finance and project execution. Much of the latter drew on the CommSee change management team.

Figure 12: Business Unit Led IT Structure
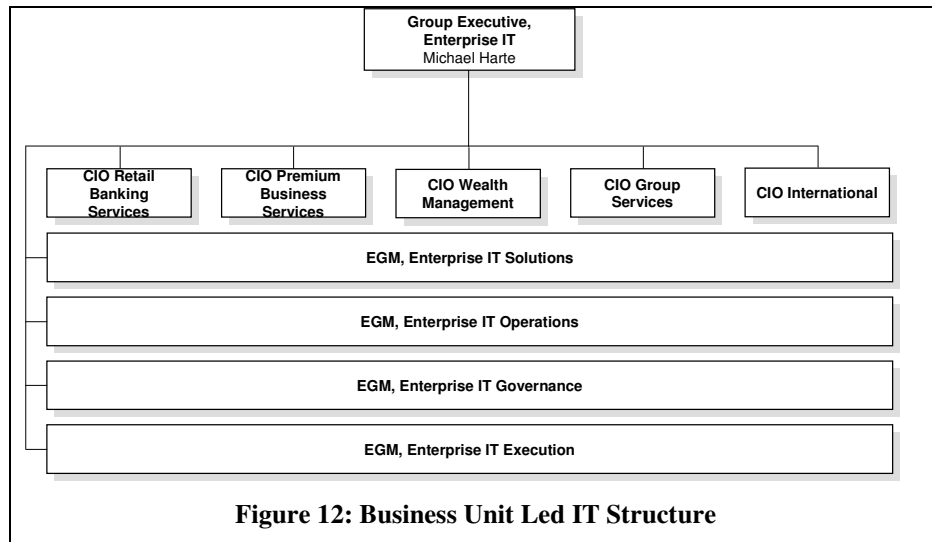
A new set of challenges faced Harte as he focused on 'getting the best value from technology investments by leveraging the capabilities and standardizing our technology offerings'. With focused execution to become the hallmark of CBA's technology organization, a new set of technology challenges included:

- Providing a group-wide leadership model of IT
- Leveraging IT capabilities and expertise to revitalize systems
- Implementing smarter sourcing; and
- Continuing to develop lean and efficient processes.

CBA continues to develop CommSee as a strategic IT platform with the latest being Release 24. CBA has also embarked on a core banking systems replacement project to replace the back-end systems.

Questions to guide case analysis[7]

1. CommSee presents an integrated view of a customer's holdings, interactions and relationships. What are the key business changes that CBA had to manage? How would you communicate this?

2. This case study reports on a large-scale change across roles, structures, processes, products and channels. What are the key challenges for change management in communications, training, implementation, and processes?

3. One of the key risks was how the business and CommSee team saw the new development approach. How can the overall relationship between the business and project stakeholders improve?

4. What are the primary technical challenges in the case and did the team handle these effectively?

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[7] Faculty should please contact alant@unsw.edu.au for a copy of the teaching note.

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