MACQUARIE GRADUATE SCHOOL OF MANAGEMENT

MGSM CASE STUDIES IN MANAGEMENT

Difficulties consolidating IT systems following a merger of two computer services companies

Raymond Young

Macquarie Graduate School of Management

MGSM Case 2004-1

May 2004

Disclaimer

Research Office

Macquarie Graduate School of Management

Macquarie University

Sydney NSW 2109

Australia

Tel	612 9850 9016
Fax	612 9850 9942
Email	gsm-research@mq.edu.au
URL	http://www.gsm.mq.edu.au/research

Director of Research	Professor John A. Mathews
Manager, Research Office	Ms Kelly Callaghan

ISSN	**1445-3126**	**Printed copy**
	1445-3142	**Online copy**

MGSM Case 2004-1

Difficulties consolidating IT systems following a merger of two computer services companies

Raymond Young

PhD Student

Macquarie Graduate School of Management

Macquarie University, Sydney NSW 2109

Tel	612 9850 9016
Fax	612 9850 9019
Email	raymond.young@mgsm.edu.au

Difficulties consolidating IT systems following a merger of two computer services companies

Abstract

This is a case study illustrating the political realities of a 'routine' IT project. The project had a very poor outcome, overall revenues were compromised and the senior managers personally suffered as a result. The main reason for the poor result was not so much poor project management or lack of technical skill but rather the lack of 'senior management support'. The case provides extensive background information to show that the lack of support was to be expected given the political realities of the case. It suggests that such situations are typical of routine projects and therefore a major consideration in all IT projects.

The case was originally prepared to test an IT risk management framework and modified to support an MBA class on IT Management. The case was used to help students to appreciate that so called IT experts and the common IT prescriptions tend to focus on inappropriate issues from a business perspective. The objective was to help students internalise the finding that "unless top management are actively involved, the idea that computers will produce substantial benefits is the big lie of the information age".

The case is based on personal experience, interviews and extensive reconciliation against project documentation.

Prologue

In 2002, TECHSERV merged with Mainframe Australia Ltd to form the third largest computer services company in Australia. In order to realise the benefits of the merger, the IT systems were rationalised. The decision to select FANCY over BASIC as the call system was political rather than technical and many difficulties were encountered in the merger. The following case study describes the context of the key events. Names may have been changed to protect identities.

Chris Little was excited. He had just been promoted to a CIO role and it reflected the confidence senior management had in him. He had successfully overseen the creation of an IT infrastructure for a newly merged computer services company and he was convinced a new data warehousing initiative was the next step to use information to drive higher levels of profitability.

Chris had not been taking the lead with the call system conversion. As far as he knew it was on track and although it was a key operational system he felt he had bigger fish to fry. He was feeling so good that he decided that he would take his long overdue holiday and come back to get started on what he felt was the more strategic data warehouse project.

Prior to leaving for his holiday, two 'techies' made him aware of a technical problem relating to the merging of the two call systems.

"This merger is never going to work!"

"Oh?"

"They're decommissioning the BASIC call system but FANCY doesn't have a flag for 'T&M' and they don't report calls the way we do"

"Have you discussed this with Cindy (the project manager)?"

"Yes"

"what about John (the support services manager)?"

"We told him first"

"and Dan (the operations manager)?"

"Yeah he knows"

"OK, I'll have a word with them. Thanks for letting me know"

In the same way that Steve Stout, the financial controller, had been the owner of the successfully merged billing systems, Dan the operations manager and John the support services manager were the owners of the to be merged call and logistics systems. Unlike Steve however, neither Dan nor John had fully agreed with the choice of the new system. They had resigned themselves to the decision. In addition to this, John was no doubt extremely unhappy to be losing control of the IT function that had previously reported him. With his promotion, Chris as the new CIO would gain control of the IT function, but he had yet to assume the responsibilities of the role and did not know the significance of ‘T&M’.

“Cindy, what’s the deal with the T&M flag?”
“Oh they’re overreacting. We’ll be able to invoice. They’re annoyed their system is being pulled”

“John, what’s the issue with this merger?”
“Leave it to Cindy. We’ve explained it to her, she’s got it under control”

“Dan, if anything goes wrong with the merger, it’s going to hurt you the most. I won’t be starting till next week, so can you make sure all the players sign off at the ‘go/no-go’ meeting this Friday. Especially this ‘T&M’ thing. If there’s anything fishy, I’m happy to delay it till we’re 100% ready”
“yeah, me too”

Difficulties with the Call System consolidation

Despite the assurances, the system merger proceeded with disastrous results. A major functionality: T&M invoicing, could not be processed in the new system. Because of the changed reporting system, some customers also lost the ability to monitor the progress of their calls.

The state managers were alarmed and a conference call of the senior management team was convened the same day Chris returned from holiday to begin in his new role. The discussion was very heated but Doug Hollow the MD felt that only way forward was for Chris, as the new CIO, to accept responsibility for resolving the issue.

Later that day a crisis meeting of the technical staff was held. Chris wanted to reverse the conversion and revert back to the two separate systems. He did this with the blessing of Ed Lin the Marketing manager, but Mick Bard, Ed's representative at the crisis meeting, did not support this option. The project manager, Cindy believed that the problems could be rectified within a month but at that stage, no one was sure what all the problems were. Dan, the operations manager, felt that if the problems could all be fixed within a month, the pain of fixing the problem would not be as great as the pain of reversing the conversions. Mick agreed.

Everyone knew the decision had to be made that day because further delay would have made it impossible to reverse the conversion.

The decision

Chris responded to the pressure by insisting that the specific problems be itemised before committing to any option.

Within hours, it was reported that 27 key fields had never been considered in the conversion and the business processes such as T&M invoicing had not been discussed. Estimates of the time it would take to fix 21 of the crucial fields were between one to six weeks. None of the technical staff at the crisis meeting supported a decision to reverse the conversion because they felt it could be fixed. The two business managers in the crisis meeting, Mike Bard from marketing and Dan from operations also strongly supported the decision to go ahead.

Mike's boss in marketing told Chris he preferred to reverse the decision but it was apparent he had not told Mike. Chris personally wanted to focus on the data warehouse initiative but if he were to be the lone voice wanting to reverse the conversion he could make a lot of enemies for no reason. The atmosphere of the meeting was very intense; careers were on the line.

As the operations manager, Dan was the logical owner of the system. Chris felt that if Dan wanted to go ahead, he would do the 'right thing' and help fix the problems. He committed the organization to go ahead.

The Computer Maintenance Services Industry

Computer maintenance services had traditionally been a very high margin business for mainframe computer manufacturers. Once a customer bought a proprietary mainframe computer, they had no choice but to rely on the manufacturer for parts and maintenance.

Technological change however, was changing the market rapidly. The rapid improvement in the capabilities of mid-range computers and PCs made it possible for customers to run their mission critical IT applications on lower cost platforms. The market for mainframe computers was shrinking and it was no longer the centre of IT infrastructures. The mainframe was now only one component of a complex IT environment where hardware was sourced from many suppliers. The need for fast service for mission critical platforms remained, but highly cost competitive low margin PC maintenance service providers were squeezing the fat profits.

Merger between Mainframe Australia and TECHSERV

The merged company took full advantage of the new IT environment by sourcing 2nd hand parts from the US and breaking IBM's monopoly on mainframe computer parts. They sourced inventory and trained staff to service most brands of mainframe, mid-range and PC computers and they marketed themselves as a multi-vendor computer maintenance services provider.

Cultural differences

The merger however, reflected the contradictions in the market. The merged company had gross margins of around 6% compared to the old Mainframe Australia business of around 20-30%. Mainframe Australia's culture reflected the high service high margin proprietary mainframe market. TECHSERV in contrast was very cost sensitive and they often chose to provide lower levels of customer service for lower profitability customers eg. They reduced the inventory of spare parts for the lower margin products that they serviced and their engineers did not receive as much training on these products.

TECHSERV management's style were more appropriate in the new business environment but the overall corporate goal was to keep their high margin mainframe customers for as long as possible before migrating them off mainframes to more cost effective and lower margin mid-range and PC platforms. Information was critical to managing in this business although few in the management team apart from the MD, CIO and financial controller realised this need (eg. profitability by customer information). Together they prepared the strategic IT plan for the future of the new company.

Figure 1: Draft IT strategic plan showing rationalisation of the operational systems firstly to 3 systems (BASIC, FANCY, SPARES) and then to 1 system (FANCY).

Extracts from company newsletters capture some of the excitement at this time:

The merger of TECHSERV with Mainframe Australia Limited has given us enormous potential to be the major force in the IT services business. With over 500 employees we are the 3rd largest in the industry behind only DEC and IBM.

TECHSERV, however, has a major competitive advantage. No other competitor has our A-Z capability to support mainframe, mid-range and desktop products.

25 June 2002

The appointment of Doug Hollow as our new MD is the highlight of a month of solid effort.

30 Jul 2002

Contracts conversion from LEGACY-3 and LEGACY-2 is progressing well and on schedule for the 1 October billing from BASIC.

New invoice formats have been created in BASIC so that our customers will see almost the same format as before. We are also preparing a large mail out to our customers to advise them why their maintenance invoices will now be on TECHSERV letterhead

30 Jul 2002

Contracts extracted from LEGACY-2 and LEGACY-3 have been validated and parallel invoicing runs between our systems for the last two months have been reconciled. BASIC training is almost complete and the new maintenance contract procedure is being resolved. **We will 'go live' with contracts in BASIC on 1 October**.

We've pointed to our disparate systems as a source of inefficiency and as a cultural barrier. With the impending systems consolidation only weeks away, we will take an irreversible step forward to become something greater than the sum of our past mergers. 25 Sep 2002

We have met our first milestone in rationalising systems! All maintenance contracts have been moved to BASIC and the first invoicing run on TECHSERV letterhead has been successful.

The current status of our IT systems is as follows:

- Financial systems
  BASIC, DEBTORS, LEGACY-4, LEGACY-5, ASSETS
- Contracts / Billing
  BASIC, ~~LEGACY-1~~, ~~LEGACY-2~~, ~~LEGACY-3~~
- Call Management
  BASIC, FANCY, FANCY-WW
- Logistics
  BASIC, SPARES, REPAIRS

One might summarise the status of our IT systems as: '3 down, 8 to go'.

12 Nov 2002

On Friday 25 October, the first "one page KPI reports" were sent to managers across the country. They will continue to be sent on a weekly basis.

12 Nov 2002

"we're not integrating any more … we've gone beyond that" 12 Jan 2003

Key Targets

BASIC -> FANCY Call Conversion 20/1/03

BASIC -> SPARES Logistics Conversion 26/1/03

Data Warehouse implemented & report writer roll-out 26/1/03

Electronic distribution of KPI's Feb 03

The last newsletter dated 12 January 2003 proudly declared that "we're not integrating anymore … we've gone beyond that". The confidence within the company was reflected in both the draft IT strategic plan (fig 1) and the planned consolidation of the strategic 'Call System' on the 20 Jan 2003.

Merger of IT Systems

The consolidation of four separate Contracts & Billing systems to one allowed the newly merged company to do two things: (1) to lower it's cost structure (the three decommissioned systems were all legacy systems running on a mainframe platform and they were expensive to maintain) and follow one standardised business process. (2) It also, more importantly, paved the way to calculate profitability by customer because it was difficult to get customer information from four disparate systems.

A second major systems integration of the call systems was crucial to the business for operational reasons. 2/3 of the operating costs in the business related to staff (the other 1/3 to spare parts). The staff costs were largely driven by the business process which in turn was underpinned by the IT system. It was necessary to have one call system before the business process could be effectively fine tuned for efficiency.

Organization Structure

TECHSERV was set up to have a separate market identity from its parent company. In practice, it had direct reporting links to its parent, but because of profitable results, it was making significant progress in establishing its independence. The organization

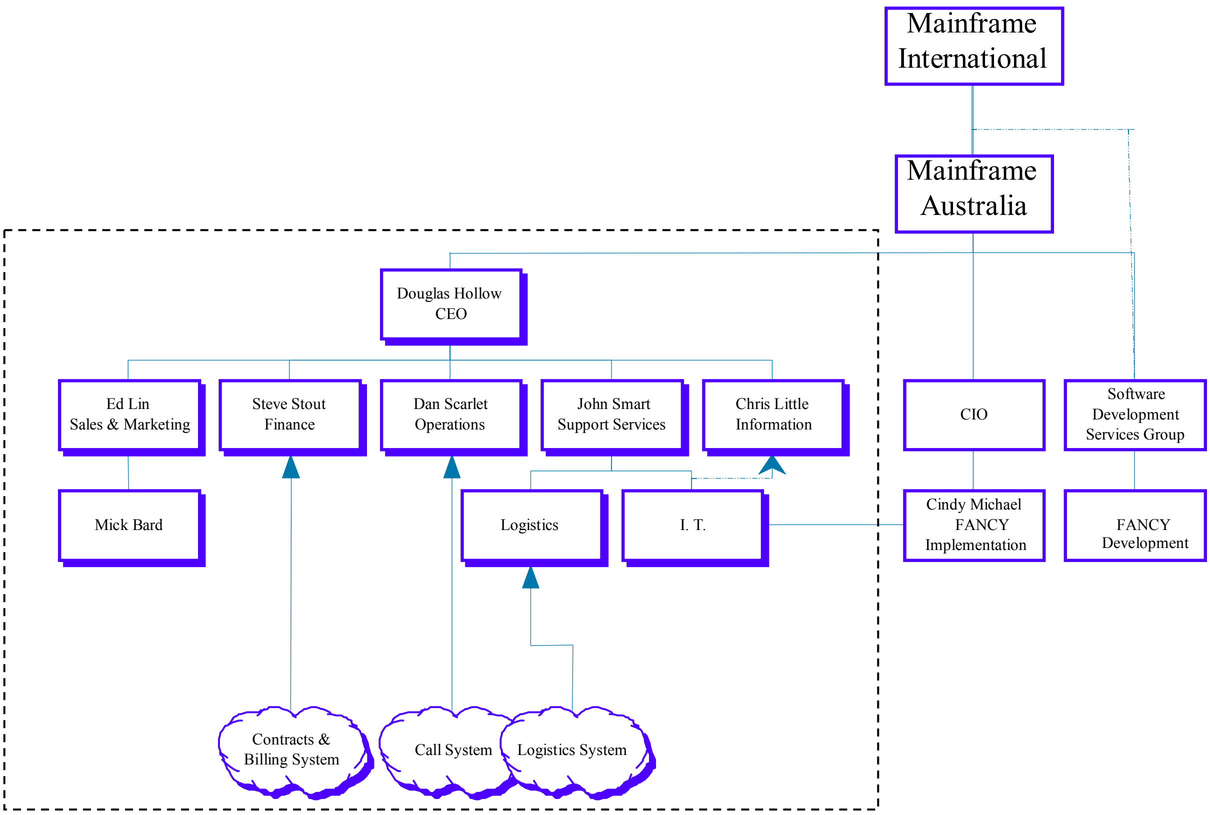

Figure 2 Organisational chart showing both the relationship between TECHSERV & Mainframe and FANCY ownership

chart shows the fragmented ownership of FANCY as well as the impending change in reporting structure in the IT function.

The original ownership of the IT Systems is shown in Table 1 below.

IT System	TECHSERV	MAINFRAME AUSTRALIA
Contracts & Billing	BASIC	~~LEGACY-1~~, ~~LEGACY-2~~, ~~LEGACY-3~~
Call	~~BASIC~~	FANCY, FANCY –WW
Logistics	~~BASIC~~	SPARES, REPAIRS

Table 1 Consolidation of IT applications (strikeouts show decommisioned systems)

Technical issues affecting the consolidation of the call systems

BASIC was the fully integrated services system used by TECHSERV prior to the merger. It had been fully developed in house using a little known programming language, but it worked and had the advantage of being able to run on a low cost IT platform. After the merger TECHSERV management presented a case for consolidating all systems to BASIC because of the lower cost and advantages of a fully integrated system. However, several considerations made this option unattractive:

- BASIC was largely undocumented and all the knowledge lay in the head of one talented but somewhat fickle programmer known to have occasional 'Prima Donna' fits of uncooperativeness.
- The development language, was being superseded and would no longer be supported in the near future.
- Negotiations were proceeding with a software development company to overcome both these issues. The development company could provide staff that could learn BASIC and support the development language. Despite this, the issue remained that it was a dying language and programmers would be difficult to source.
- The development language had its roots on a PC platform and there were doubts as to whether it would be fully scalable to handle the demands of the

newly formed $100M pa company. Independent tests had shown that it would work, but the IT staff in the parent company were unconvinced. One very telling sign was that whenever the lights flickered because of power surges, the developer looked nervous and would often rush to the server to check everything was ok. He said that once the network had been upgraded, this problem would be overcome.

- FANCY an alternative system, although not fully developed, was being sponsored by the international parent company to be the services system of choice for all subsidiaries. It was based on Ingres: a well known development language and there was no question that it had the potential to handle the increased demands of the merged company.
- There were however some doubts regarding the quality of FANCY. The development group had a poor reputation and the specifications on which it was based were sometimes based on best practice from over six years ago. The was a rumour that the local parent maintained its profitability on the basis of software development revenue and that it was milking its international parent for all it could get.
- The financial case for FANCY was extremely strong. Approximately $6M had already been spent in development of FANCY. It was fully funded for future development and the international parent would pay all for enhancements. Another division of Mainframe Australia was doing the development work and the development work contributed significant revenue for the local company. Any decision not to use FANCY would have major political ramifications.

Some reasons for the difficulties

Dick Stone, one of the key technical staff working on the decommissioned BASIC call system commented later: "I'm not sure anyone from the FANCY team ever talked to us… we were glossed over" He added "the attitude was that FANCY had been selected, and by definition was the best thing for the company. The edict was 'thou shalt have FANCY'. They believed FANCY was generic and therefore it would work. Problems could be dealt with later. They didn't realise how inflexible the T&M procedure really was."

According to Dick, the TECHSERV staff felt that FANCY wouldn't work (the way TECHSERV was used to working) and they knew Mainframe wouldn't change FANCY. Everyone had different reasons why it might not work e.g. too slow, didn't do something, didn't know how data would get in, etc. and along with this negative atmosphere was a conservatism inconsistent with the pace of rapid change. "I am a naturally conservative person. I tend not to say 'it will work' until it's actually done and working. I had a lot of misgivings because I didn't feel that anyone had been through it thoroughly and checked this and ticked that"

Dick felt that the Operations managers's attitude was 'we have too, we don't have a choice' and that the Support Services manager's attitude (after losing control of the IT function) was that he didn't care any more. The Support Services manager was suspicious and thought they may be looking for scapegoat. He is said to Dick "get a lawyer... be very careful who you talk to and what you say"

Dick felt that the earlier contracts systems (LEGACY-2, LEGACY-3 & LEGACY-1 to BASIC) conversion was successful because the people worked so closely together. "With FANCY, there were always two people between (the people who knew how it worked). Even the development team didn't know what the operations team were doing." His overall feeling was that the people issues had never been adequately addressed i.e. Why should we do this?

The result

The next few months were spent rectifying the problems. As each problem was solved one by one, Chris seethed inside because they were easily identified and he asked himself "why wasn't this discussed and resolved before we cut over?" He tried apologising formally to the customers but Mick Bard in marketing refused to authorise any document acknowledging responsibility because it might open TECHSERV to liability claims.

By the 17th March, two months later T&M revenue was starting to be collected again but there were still a number of major tasks to be completed. The company had lost 30% of it's revenue during this period. No one had realised it would be this significant. The Operations manager commented "if we had realised the implications, we wouldn't have been so cavalier about it". Every IT system consolidation had been delayed 2-4 months.

All the financial targets were missed that year. None of the senior managers received their bonuses. A year later TECHSERV, in an independent survey of customer service, had a 'bottom 5' rating.

Post Script

The BASIC support staff were completely frustrated with the process and stopped cooperating. The key developer decided that if he was not going to be listened to, he would increase his hourly rate from $60/hr to $200/hr and leave as soon as he got another job. The other developer opted to leave the AREV support company that TECHSERV contracted to overcome support difficulties. He offered to work for $120/hr and TECHSERV had no choice but to pay. TECHSERV also had to pay out the software development company to prevent legal action for taking one of their staff. The news spread and some technical support staff for the legacy logistics system did the same thing.

Development stopped on the FANCY system after another six months of political negotiations. It was important that the international sponsor not be seen to be at fault. The cancelling of the project had to wait until he had another successful project to justify diverting his attention. FANCY was then dropped in favour of a packaged solution. The implementation of the packaged solution was successful only after its second attempt. Cindy, the project manager of the failed call conversion managed both the failed and the successful packaged solution implementation.

The logistics system consolidation has been deferred indefinitely and the logistics function has been outsourced.

Key Performance Measures started to be produced from the data warehouse initiative 90 days after the call system difficulties were resolved.