

Leslie Willcocks, Mary Lacity and Andrew Craig **Robotic process automation: strategic transformation lever for global business services?**

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Robotic Process Automation: Strategic Transformation Lever for Global Business Services?¹

Teaching Case Study for the *Journal of Information Technology Teaching Cases*

December 2016 Resubmission

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How can Diana's department do more work without hiring more people?

Diana Stevenson is head of human resource management (HRM) services for Waterman-Anderson-Lockhart-Trevor (WALT)¹, a global professional services firm that provides audit, tax, and consulting services to commercial client organizations in over 90 countries. Her department employs 110 HR specialists who provide HR services for the 120,000 employees that work for WALT. The HR specialists onboard new employees, keep employee data updated, track employee training portfolios and benefits packages, ensure payroll compliance, deliver training on HR services, provide consulting on HR benefits, and assist divisions with recruiting processes and compliance, among other duties.

Diana's department is part of WALT's global business services center (GBS) that provides support services for human resources, procurement, and financial and accounting services for all of WALT's service lines. Diana reports to David Burroughs, Head of WALT's GBS. GBS was created 10 years ago as a centralized support function to keep administrative costs low while providing service excellence to the business lines. Initially GBS had one delivery center located in Chicago Illinois near company headquarters. Five years ago, GBS opened a delivery center in Mumbai India and has since relocated 300 jobs of its 525 jobs to India.² Among Diana's 110 HR specialists, 40 people work in the Chicago center and 70 people work in the Mumbai center.

WALT's business is growing at over ten percent per year and senior management has just told David that GBS must absorb the additional work volumes next year without a proportional increase in GBS headcount. WALT's growth is partly fuelled by its competitive pricing, so it must keep costs low in order to keep prices aligned with its competitors. Additionally, the partners expect WALT to improve profit margins.

David called a meeting with Diana and the other GBS department heads from procurement and financial and accounting services to consider the mandate. David began, "Yes we find ourselves again trying to do more work without more resources. In the past ten years, we've managed to reduce costs by creating GBS, by centralizing and standardizing services, by applying Six Sigma process improvements methods to streamline processes, and by creating a captive center in Mumbai. We need to think about what we can do next to lower costs while still protecting our record of service excellence. I've prepared the most recent benchmarking reports for each of your departments. Please take a month and come back prepared with a plan to take on more work without adding more headcount."

The HR Department's journey to good performance

Diana returned to her desk in Chicago, Illinois and pondered her boss's charge. Based on the external benchmarking results, she knows her department's performance is in the top quartile of US-based companies as far as cost efficiency. Specifically, her department's HR cost per employee serviced is \$1,330 compared to the median industry cost of \$1,625.³ She is also proud of the fact that the quarterly customer satisfaction survey shows that WALT's employees from audit, tax and consulting are, on average, very satisfied with the HR services delivered by her department. Five years ago, the customer satisfaction survey plummeted when roles were moved to India. Service was initially poor, mostly because the turnover rate in the Mumbai center was at 70 percent.⁴ Exit surveys had shown that the Mumbai employees felt disconnected from the company and felt that their Chicago counterparts were impatient and condescending when they needed assistance.

Diana had spent the next three years finding the right way to configure processes and finding ways to keep employees in both delivery centers engaged with each other. Instead of dividing work by delivery center, she created integrated teams for each process, with representatives from both centers. Teams meet weekly through video conferencing, with meeting times of 7:00am Chicago time/5:30pm Mumbai time so each side is equally inconvenienced. Project leads visit the other delivery center once every 18 months to further build social relationships. In addition to improving the culture, the integrated teams had the added benefit of covering more service hours in the day without shift work.⁵

Diana also started a mentoring program. Each HR specialist now has a mentor from a business service line from audit, tax, or consulting. In addition to career advice, the mentors were tasked with helping HR specialists understand WALT's business lines so HR specialists would better understand their contribution to WALT's success. Overall, the HR specialists were more satisfied with WALT as an organization, but as of 2016, the turnover rate in India remained high at 35 percent compared to the 15 percent turnover rate in Chicago. While Diana improved the culture to make GBS a more welcoming company, the fact remained that much of the HR work was repetitive and boring. She knew, based on recent exit interviews, that monotonous work was the main cause for turnover in 2016 in both delivery centers. Many of her HR specialists sit in cubicles and spend a large portion of their day taking inputs from emails, spreadsheets, phone calls, and work queues and then apply simple rules to update Workday, SAP-based and other systems of record.

Diana considers automating some HR services

The onboarding process for new WALT employees is one such example of a repetitive, monotonous process. The onboarding process requires the HR specialist to log on and off a dozen systems to set up new employees with benefits, payroll, email, voicemail, security clearance, office space, office furniture, computer, parking pass, expense account, identification badge and business cards, with the HR specialist following standard rules for each routine task. Multiply that process by the thousands of new WALT employees who are onboarded each year and the continuing support of those services to get an idea of the scale.⁶ If Diana automated that process, she roughly estimated that she could save up to five Full Time Equivalents (FTE),

freeing them to help absorb some of the growth.

Updating employee data is another boring process. HR specialists receive requests to update the master data whenever an employee's status changes, such as having a child, getting married, relocating, or getting a promotion. She guessed that automating that process could save ten FTEs! Diana was getting excited that automation could be the solution to take on more work without hiring more employees, but she knew very little about automation. Who could give her help?

Diana calls an RPA consultant

Diana remembered Valerie Dawson, a consultant that GBS had previously engaged. Valerie and her firm the Dawson Group had helped GBS set up the captive center five years ago, so her consulting company understood well GBS's processes and people. Diana saw Valerie last year at a conference and recalled that Valerie had just started another service line in the Dawson Group focusing on Robotic Process Automation. She called Valerie and explained her idea. They met offsite so as not to alarm any GBS employees that Diana was meeting to discuss automation.

Diana began by explaining the GBS mandate, and how she thought automation might be the solution by automating the onboarding and employee data management processes. Valerie listened, and then said, "Diana, you have a great idea but you are thinking too tactically. You are only thinking about automating one or two routine processes within your own work silo. Think like David Burroughs—he is in charge of a mature GBS that has already deployed most of the transformation levers we have for shared services; he's already centralized, standardized, optimized, and relocated a lot of labor offshore. What is GBS's next transformation lever? I can tell you from our Robotic Process Automation (RPA) practice that leading shared service organizations are now building enterprise-scale RPA capabilities. The new breed of RPA tools is low cost—a software robot costs about \$13,000 a year and can do the work of two or more people. The tools are really easy to use, so subject matter experts can configure the tool to automate exactly the kind of processes you are talking about, ones that are repetitive and rules based. These tools don't require IT programming skills, which make implementation much less expensive since you don't need an IT team to do the automation—your own staff can be trained to do it."⁷

Diana said, "Oh boy—I am not sure that automation on a big scale is our ambition. David and I have spent so much time building our GBS culture. We care about our employees and we care about the excellent service we provide to our company. I don't think we want our employees replaced by software robots."

Valerie responded, "Yes I understand your concerns. We've helped dozens of companies think strategically about RPA. Most of our clients are in your position—being asked to take on more work without hiring more people. The key is to think big from the beginning, but start small. I can tell you that we help deliver the win-win-win for shareholders, customers and employees

with RPA. Shareholders get their cost savings, customers get better services, and employees are happier because they no longer do dreary work—the software robots do the dreary work and employees are refocused on tasks that require creativity, emotional intelligence, and problem solving.”

Diana responded, “Valerie, I’ve known you long enough now that I can be honest with you. When you tell me to think about RPA strategically and that RPA can delivery what you just claimed, the win for shareholders, the win for customers, and the win for employees, I can tell you I am reminded of the adage, ‘consultants are often wrong but never in doubt.’ This sounds too good to be true.”

Valerie smiled, “Yes Diana I certainly respect your skepticism. Consultants are known for over-selling the value of new technologies. And so are software companies. But let me tell you there is still a lot of confusion in the marketplace about what RPA actually is. And it’s not helped by loose talk about cognitive automation, intelligent automation, and even artificial intelligence, and the like. You probably heard of IBM’s Watson—the software that beat the game show champions of Jeopardy back in 2011. In addition to Watson, by mid-2016 there were about 120 tools playing in the cognitive automation space that deal with natural languages and other unstructured data like pictures.

Let’s just focus on RPA for the moment, and let me give you a quick tutorial. In practice there seem to be many types of products all called RPA but which do different things and have different implications for how to implement, and what you can achieve. Which one you choose depends on the business problem you want to address. So there are specialized software products that will work in specific types of processes, for example, finance and accounting processes, or HR processes. There are then three types that can be applied more generically.

The first set of generic tools is what I’ll call **desktop RPA** tools like macros, scripting and screen-scraping technologies that offer fast record functionality. The product records what a user does from his/her desktop and captures keystrokes and mouse clicks. Desktop tools are often designed to help democratize the workforce by putting the tools in the control of the employees on the frontlines. However, from an enterprise perspective, the software ‘robot’ does not know what it is doing in any serious transaction-processing context. It has a set of actions that it performs when called upon—either by a human, or some process trigger. It then simply replays the keystrokes. This is ‘fire and forget’ in that the robot does not have a ‘process state’ view of where it is. This makes it difficult to manage in a large implementation. It does not offer re-use (it’s a set of key strokes), it doesn’t know why a process could go wrong and it cannot be re-purposed (it must re-recorded). It works best as a fast and fine desktop assistant. It’s key features are ease of use - they are designed to be used by subject matter experts - and its ‘non-invasiveness’ because desktop RPA tools sits on top of other IT systems of record—there are no application interfaces needed.

The second set of tools is what I will call **enterprise RPA**. Like desktop recording automation tools, enterprise RPA tools are easy to use and designed for subject matter experts to configure

the automation, and they too are noninvasive —the tool sits on top of other IT systems of record. One main difference is that these tools are deployed on servers, not on desktops. Another difference is that the products I recommend do not have record buttons, but instead build objects that execute tasks from a secure component library. The robot can be configured to pull and execute a number of tasks from the component library, like logging on and off multiple systems of record while executing rules. I call it ‘enterprise RPA’ because it is designed to be consistent with IT governance, security, architecture and infrastructure requirements, and can be quickly implemented, re-used, and scaled. RPA in this form can create multi-purpose robot teams and be grown into an enterprise capability.

The third set of tools is what I’ll call **professional IT software development tools**, like Software Development Toolkits (SDKs) and Business Process Management (BPM) tools. These tools require IT programming skills and are coded by IT professionals. These tools require subject matter experts to explain their business processes to IT professionals, who, in turn, do the automation for them. Whereas the first two sets of tools are designed to be configured by the subject matter experts without the help of IT, professional IT software development tools have application interfaces and other technical requirements. These tools are suitable for heavyweight IT projects—like adding code to an ERP system.

Professional IT software development projects are typically managed by IT departments, following their software development methodology, whether that be agile or waterfall. The two distinguishing attributes of the first two sets of RPA tool software—they are designed for non-programmers to use and they do not disturb existing systems—means the threshold of business processes worth automating are substantially lowered. Now, those swivel chair processes that are owned by business operations and are too small to justify the use of IT development resources can be automated by operations folks.”

Valerie paused and looked carefully at Diana. She looked flustered.

“Yes”, said Valerie, “It’s a lot to take in, and I can help you through the decision process, but believe me, doing some homework on what the business problem is, what you want to achieve, and what the RPA can do will save you a lot of potential problems later on. Look, let me leave you a case study I recently found on the company Xchanging.⁸ Xchanging thought strategically about RPA from the beginning but started small, and within 14 months built an enterprise with RPA capability that delivered that triple win I just claimed. I can’t wait until you read about Poppy—that should show you it is possible for your employees to embrace RPA. Xchanging has been only one example of many companies that now have mature RPA capabilities and NONE of the companies I am aware of laid off any employees. Why don’t you read the case and we can talk in a few days? I think you will want to bring David into our discussion, but I’ll stop selling and let the evidence speak for itself.”

The women parted. That night, Diana went home and began reading the following Xchanging Case Study. She quickly became absorbed in the story of how the Business Process outsourcing service company adopted robotic process automation.

Xchanging - The Business Background

Xchanging is a provider of technology-enabled business processing, technology and procurement services internationally to customers across many industry sectors. At the end of 2014 it had over 7,400 employees (4,600 Business Process Services, 2,000 Technology, 800 Procurement) in 15 countries, providing services to customers globally. Net revenue for 2014 was £406.8 million, of which £282.4 million was from Business Process Services. Year-end net cash of £13.7 million (2013: £120.1 million) reflected £90.3 million of acquisitions and £43.4 million of capital expenditure. Adjusted operating profit of £55.8 million in 2014 (2013: £55.5 million), represented a 21.5 percent underlying year-on-year improvement.⁹

Xchanging was founded in 1998, specifically to address the relatively new Business Process Outsourcing (BPO) market. Its founder and first CEO David Andrews brought to market an innovative model of enterprise partnership – essentially a 50/50 joint venture model that created a third entity into which the client placed its assets, and Xchanging committed managerial capability in seven business competencies designed to drive innovation and continuous improvement. Xchanging began with four contracts – in HR and procurement with BAE Systems, and in insurance and claims services at Lloyds of London and the London Insurance market. By 2007, Xchanging had over 4,200 employees in seven countries, with customers in 34 countries. Xchanging found it advisable to add four more offerings to its enterprise partnership model, namely, outsourcing (guarantee sustainable savings), products (seeking to offer best solution), straight-through processing (optimizing the value chain), and business support. In April 2007, the company went public, and was listed at 240 pence at the top end of the quoted price range, and raised 75 million dollars of primary capital.

However, over the next three years Xchanging began to run into problems, notably after the acquisition, in October 2008, of Indian-based outsourcing and IT group Cambridge Solutions Ltd for £83 million in cash and shares. By February 2011, Xchanging gave warning that underlying operating profits in 2011 would be ‘below the lower end’ of analyst expectations, as it cancelled its dividend and announced the departure of David Andrews, its founder and chief executive of 11 years. Ken Lever became the acting chief executive, taking up the post full time four months later. The new CEO’s job was to restore profitability and increase revenues.

By 2015 Xchanging specialised in bringing domain expertise and technology-enablement to complex business processing. Deploying technology and innovation, Xchanging aimed to perform customers’ non-core and back office functions better, faster and more cost-effectively, allowing customers to focus on strategic activities and adding business value. Xchanging’s approach has been to combine innovative technology with best-in-class process methodologies to address customers’ back and middle office needs. Xchanging was using onshore, nearshore and offshore centres, and worked across a wide range of industries building on domain strengths, particularly in insurance. At the time Xchanging’s Procurement business was recognized as a global leader in its field.

In 2015 Xchanging as a business technology and services provider consisted of three interrelated divisions. The first was Business Processing Services. The second, Technology, accelerated strategic development of its Xuber insurance software business with 2014 acquisitions, enhancing its ability to offer software products that met international and standardised customer needs. Thirdly, Procurement, by 2015, had repositioned its product and service offerings. After four exacting years, Ken Lever, Chief Executive, saw 2014 as a challenging year in which the transformation process begun in 2011 was completed:

*'To address the future market we have re-defined and focused our range of higher value offerings, based around technology, both in its own right and as an enabler and differentiator, and driven by innovation and insight into our markets.'*¹⁰

*'Xchanging is now a business technology and services provider. Our Technology and Procurement businesses offer the potential for higher growth and margin expansion, rebalancing our overall Group significantly in the future. Our foundation Business Processing Services business offers moderate growth, good margins and strong cash generation. Our focus for 2015 is entirely on driving the revenue and profit growth performance of the new Xchanging.'*¹¹

Xchanging's RPA Journey

Context and Drivers

RPA was adopted in Xchanging's insurance business, as a basis for further usage group-wide. By 2015 Xchanging had two remaining enterprise partnerships (now called shared services), both in insurance. Xchanging Ins-sure services (50% Xchanging, 25% Lloyd's of London, 25% the IUA) had secured a further five-year contract (in 2012) to run the centralized Insurers' Market Repository (containing the market's claims, premiums, policies and related documentation) and all the back-office policy and administration processing for Lloyd's of London and the London Insurance market. Meanwhile, Xchanging Claims Services (a 50/50 joint venture between Xchanging and Lloyds of London) had a three year contract signed in 2014 to continue to manage claims processing.

By way of background, Lloyds of London is the world's specialist insurance market providing insurance services in over 200 countries and territories. The London insurance market (LIM) as a whole comprises insurance and reinsurance companies, Lloyd's syndicates, P&I clubs, and brokers. The core of LIM activity is the conduct of internationally traded insurance and reinsurance business. The management and administration of policies, premiums and claims with literally hundreds of London market entities, and millions of end customers is a highly complex, high volume business, in which speed, reliability, consistency and accuracy are vital requisites. An overview of the London Insurance market, including Xchanging's role therein as at 2016, is shown in Figure 1.

In these ongoing contracts Xchanging had, by 2015, already invested some 13 years of

process innovation and continuous improvement. With Xchanging's stress on 'technology at our core'¹² and with his own deep experience in technology services, for Adrian Guttridge Executive Director, Xchanging Insurance, the step into RPA seemed obvious, but prototyping was necessary. In early 2014 he placed his data and information manager, Paul Donaldson, in charge of an RPA project to identify and automate ten processes in the insurance business whilst establishing a long-term governance and support competency for the Group:

*'We did not choose an IT person, and it had to be someone who understood process reengineering. Though I have an IT group of over a hundred people onshore and offshore many hundreds more, I put it into the business processing part under the Operations Director.'*¹³

Paul Donaldson saw two drivers that RPA seemed to address:

*'It wasn't just the customer driver for more business value. It was Xchanging itself having continual improvement embedded in its culture. That's why we have dedicated process black belts.'*¹⁴

XCHANGING'S ROLE IN THE LONDON INSURANCE MARKET

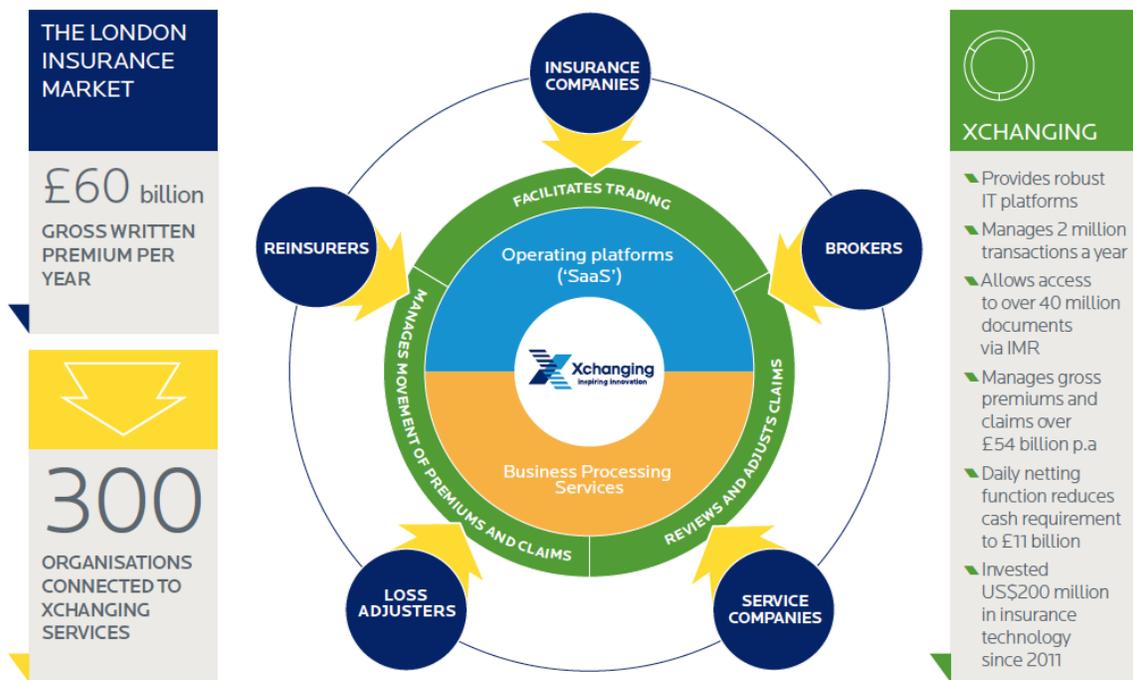


Figure 1 Xchanging's Role In The London Insurance Market
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Donaldson was a Six Sigma black belt himself, so a suitable champion for the project. RPA also seemed to fit well with Xchanging's core values, including customer focus, innovation, speed and efficiency, and people empowered to make a difference through teamwork¹⁵. Furthermore, RPA matched with Xchanging's offerings of innovation and technology, but also with the promise of new, valuable expertise working for the customer, together with added service delivery flexibility:

'If you think about flexibility in something like robotics, that hits a sweet spot. A robot can scale up and down and switch tasks. You'll train an application, a bit of software once, and if your contracts change, a robot can be trained quickly to adapt. You haven't got human resource type issues like induction time.' — Paul Donaldson, Xchanging¹⁶

There was another prize. If effective, RPA could also be exploited beyond insurance, thus tapping into Xchanging's relatively new Group-based focus:

'Our deliverable wasn't only towards processes, but to put a framework in place that could be leveraged for the Group – to institutionalize it.' — Paul Donaldson, Xchanging¹⁷

The Journey 2013-14: Start Out and Launch

At Xchanging late 2013 saw a product evaluation of possible suppliers, together with the identification of candidate processes (see Figure 2). At the time, Xchanging had a huge amount of back office, high volume, repetitive data collection and processing tasks, many of them still manual, and many still taking data from non-integrated legacy mainframe systems. Moreover information was extracted from various sources e.g., Excel, Access, PDF, and input into another system or used to generate reports. There was a lot of manual comparison of information across different screens in a system before finalising any transaction. Entry into a target system had to be based on certain business rules. Blue Prism RPA products seemed eminently suitable for addressing these issues and achieving efficiencies from moving data from any source system to one or more destination systems. In particular, a number of claims presented to Xchanging seemed attractive. For example, it was claimed that robotic FTEs could be one-third the price of offshored FTEs, and could work 24x7 without errors. It would take only several weeks to automate, with no need for IT specialists. Super users in operations could train the robots. The robots did repetitive clerical tasks and fitted into existing operations. Working in a virtualized environment off a secure, audited and managed platform, the robots would run in a virtualised environment and so could be scaled up and down rapidly while working in any jurisdiction.

The process of identifying ten candidate processes suggested that the RPA software seemed most suitable where degree of process standardization, transaction volumes, rules-based process and process maturity were all high. Xchanging made some initial miscalculations. Once these were discovered, then Paul Donaldson found that it was not such a good idea to go straight to the business case, do that, then glide the processes in. On the contrary: *'If you*

define the right process, the RPA business case will naturally follow... the economics will usually add up. It's not going to cost you long-term to deploy.'

The business case was approved in early 2014. Securing the resources and mobilising the project became the main tasks to March 2014. At this stage one of the problems was the relationship with IT:

'There were a lot of skeptics in the technology space; it took a lot of convincing to allow business based operations to take some form of control over what is a decent sized IT change initiative, and a different way of operating for us as an organization'. – Paul Donaldson, Xchanging¹⁸

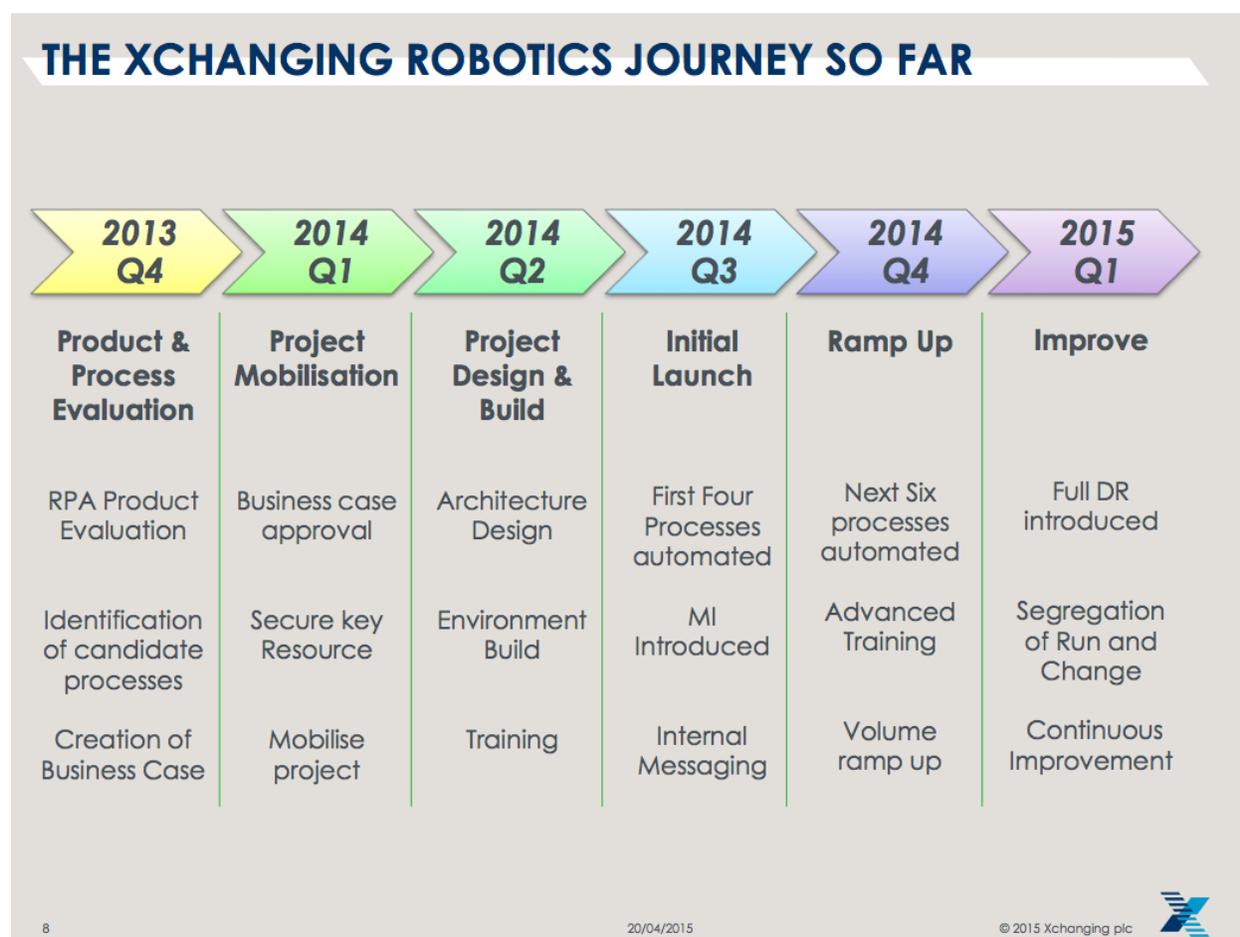


Figure 2 The Xchanging Robotic Journey (to May 2015)
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The response was to organize RPA as a technology project with a business driver, being done for, and sitting in, the business. Technology was responsible for delivering the underpinning infrastructure and architecture. This got translated into how the project members were assembled and organized.

Assembling the RPA Team

The RPA initiative had 20 people involved at various times, sitting under the Head of Operational Change - ten from the insurance business and ten from Group technology. Initially, four were developed by Blue Prism to perform the key role of process modeler – basically trainers of the software and system, and owners of the change activity. A separate ‘run’ function of two people took changes into business operations. From Group technology there was a dedicated systems manager and two support staff, responsible for servers, architecture and technology policy. Project management staff members were also involved, along with Paul Donaldson as project lead. Up to August 2014, when the project went live, Xchanging also utilised the RPA provider, Blue Prism, led by their Engagement Manager Richard Hilditch, to educate and support. The plan was to build the in-house capability and become self-sufficient as quickly as possible.

Building the Robotic Operating Model

Xchanging gained implementation speed from selectively applying Blue Prism’s robotic operating model (ROM) and Enterprise RPA Maturity Model (see Figure 3 below)¹⁹ that, together, Blue Prism claimed, represented structured accumulated learning from previous corporate deployments. According to Patrick Geary of Blue Prism: *‘You have to plan for where this is going to be, not where it is now. You have to build a foundation for a tower block, not a bungalow.’*²⁰

As such, the ROM covered in detail seven areas: Vision, Organization, Governance and Pipeline, Delivery Methodology, Service Model, Technology and People.²¹ Xchanging drew selectively on this Operating Model, and Blue Prism’s advisory, operating and training resources together with Xchanging’s own extant process/technology knowledge and resources to create a strong development and implementation roadmap and team.

Enterprise RPA Maturity Model

To realize the full potential from Robotic Process Automation requires a focus on building awareness and adapting organisationally as well as building specific RPA skills and capability.

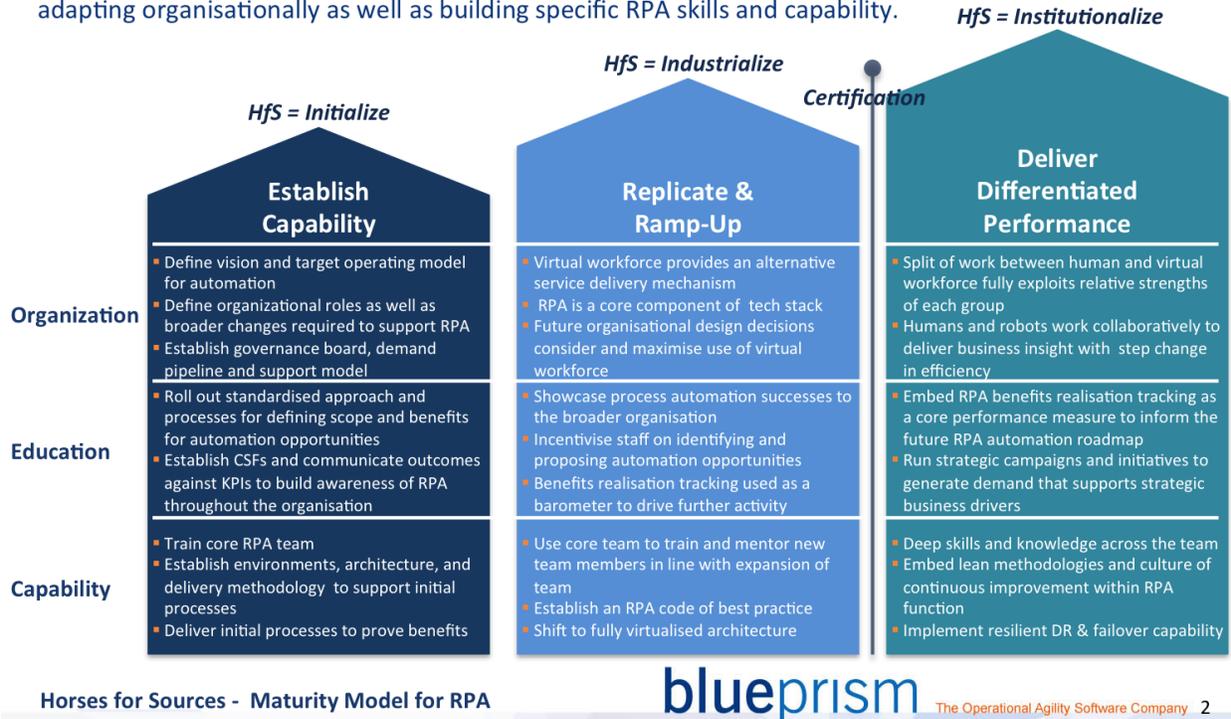


Figure 3 – The Enterprise RPA Maturity Model.
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Training the staff and the robots

During May-July 2014, the RPA group focused on technology design and build, including the architecture, and server and software support, as well as training the process modelers and all staff. A key part was designing and testing processes to get the most out of the robots, and making components efficient, easily maintainable and reusable:

‘Once you’ve trained a robot to do one thing, let’s say open or send an email, you could use that logic in tens if not hundreds of processes. You’ve not got to train the robot for every time you want to use it. But the process expert does need to verify that the robot is actually doing what is required. You give the robot a log-on, on-board the robot in terms of what it needs to do, and then – the big plus - other robots you want to activate will follow suit exactly’. –Richard Hilditch, Blue Prism²²

By August 2014, preparations were sufficiently advanced to launch four automated processes using ten robots. A notable feature, unusual in other implementations, was Xchanging's own introduction of Management Information (MI) reports underpinning the operation of the four processes:

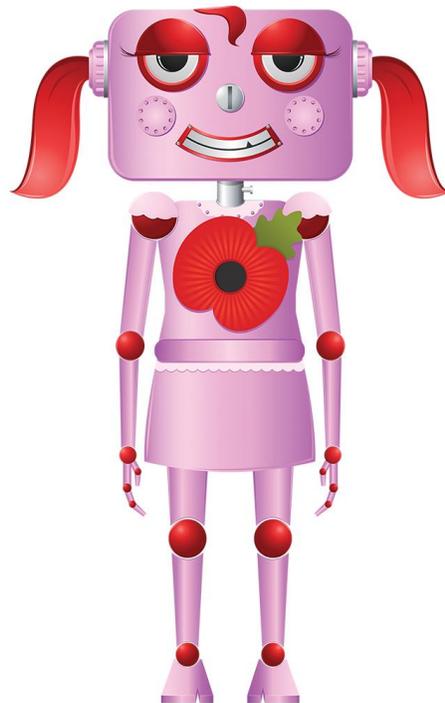
'We knew what success should look like and the great thing is that a robot gives you clear concise metrics every single moment. So there's no data capture quality issues at all. It's very black and white. You know exactly how you do, and will, perform. You see the patterns. Because of our Six Sigma background, there's a lot of Sigma-based technology to monitor and to optimize success'. – Paul Donaldson, Xchanging²³

Automating Example: London Premium Advice Notes

One new robotized process was the validation and creation of London Premium Advice Notes (LPANs), which insurance brokers use to submit premiums to Xchanging for processing. Once an LPAN is created it needs to be uploaded to the central Insurers' Market Repository. The original process involved the customer sending Xchanging an unstructured data file. The file has to be opened and validated. The operator then has to collect additional data from a system called 'Account Enquiry'. Next, the LPAN is manually created and, with supporting documentation, uploaded to the Insurers' Market Repository. This is a high volume process that the operators did not really like doing, but Xchanging is contracted to do it.

Welcoming the robots to the team

Enter 'Poppy', a robot named by Xchanging's technician Amanda Barnes after Remembrance Day 2014 – the day the RPA process went live (see Figure 4).²⁴ In the automated process, brokers still submitted premiums, and the human role was to structure this data into a standardized template, and hand it over to a pre-scheduled Poppy which read the request. After various checks a human used to do, Poppy decided whether to complete or make an exception of the request. While Poppy created the validated LPANs, humans checked the exceptions. In this scenario, note that Poppy had to be trained correctly to carry out its tasks. Continuous improvement was also part of the work, with first time completion reaching 93 percent by May 2015. Where a 500 LPAN process previously took days, a properly trained robot could now do this in around 30 minutes, without error.²⁵ The robot could easily scale up and down to meet changing workloads, without human resource issues, e.g. staff availability, training, overtime cost.



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Figure 4 – RPA at Xchanging: “Poppy”, the robot in the LPAN Process

The launch saw an intensification of the internal messaging process with many roadshows in the UK and India. Donaldson recognized that people would see RPA as a threat, but Xchanging was never expecting to lose anyone from the business through redundancies, having seen automation coming, and planned around this. The messaging was that RPA gave people the opportunity to move on to other, more interesting, work. The roadshows gave evidence of people taking on new, expanded roles. One example was administering static claims, i.e. claims that had not moved for two years. Previously this was handled by an adjustor who would verify with managing agents that the claim could be purged. Closing the claim involved linking with the CLASS claims system, following London Market purging rules and carrying out a lot of validation checks. When this process was automated, the adjustors moved on to customer specific roles, while some became part of the RPA project itself.

While there has been a big debate around whether automation would see the repatriation of work from offshore sites, Xchanging argued in its internal messaging that in its case there was no strong rationale for this. Xchanging had no quality problem with its many offshore sites that spanned work in Business Processing Services, Technology and Procurement, and repatriation would not produce a significant cost differential.²⁶ Offshore processing was already highly efficient. Rather, in practice, automation could be applied in those offshore sites to further

improve performance where needed, for example in speed, and may well mean new job opportunities.

The Journey 2014-15 – Ramp Up, Improve and Beyond

In the ramp up period from September to December 2014, the RPA team automated a further six processes. Advanced training for all the operators took place, and volume ramp up occurred across all the ten processes:

‘Since really ramping up, we started to upskill our people even more and we’ve really started to escalate volume. We’re working about 70,000 cases per month using our robotic workforce. We leave to human interaction about 7 percent of the processes we’ve automated - mainly business exceptions, or things process users don’t want us to do. System exceptions are incredibly low, usually down time in the application or an unexpected behaviour.’ – Paul Donaldson, Xchanging²⁷

By May 2015, the automated processes were achieving a success rate of 93 percent against the original 80 percent target. That came from all the continuous improvement. During 2015 Xchanging started to institutionalise its RPA capability:

‘Platform disaster recovery is in, with every robot having a robot friend sitting in another site somewhere; it’s as simple as that. We’ve got an exact copy in a separate site. When we were a certain size it didn’t make sense to divide the ‘run’ and ‘change’ functions but we’re now growing to a stage where it makes sense. ‘Run’ is now an India-based team. The continuous improvement thing’s been quite major for us. We did a whole raft of changes at the start of the year and we’ve just got more benefits out of the process that we’d never planned to at the start by really tweaking in a controlled manner.’ – Paul Donaldson, Xchanging²⁸.

Automating Example: e-policy

From late 2014 on, there developed a growing demand for RPA from offshore site managers, as part of their continuous improvement efforts. As an example, one offshore process is e-policies, which originally, as a high volume business, took 20 Full Time Equivalent (FTEs) to administer. E-policies had been in terminal decline, and the process was over-engineered. The RPA team removed waste and automated the process reducing the FTEs from seven to two, with still quite a lot of human resource needed, since e-policies were mainly business exceptions. Offshore automation was happening selectively, where there was a business rationale, but work was not being repatriated through automation.

By June 2015 the RPA team was doing a lot more work in insurance, looking to double what they had already achieved in the first quarter of the year. RPA had also become part of Group operations, reflected in Paul Donaldson’s appointment as Group Product Manager for Robotic Automation. Meanwhile the RPA initiative was being extended into the Procurement division of

the Xchanging business. The Finance and Accounting (F&A) financial services area was also pushing hard to implement RPA.

Xchanging seemed to go through the first two stages of the maturity model - Establish Capability, then Replicate and Ramp Up – in a structured, controlled and professional manner. There were anticipated payoffs from this comprehensive approach. Once RPA was industrialized, Xchanging could engage hundreds of robots quite quickly if it wanted, because it had put in the right business and technical architecture to support them. Alex Bentley of Blue Prism also pointed out that, once Xchanging had reached the ‘institutionalized’ stage, RPA could also be used to contribute to strengthening regulatory compliance, test out new business strategies cheaply and quickly, and address digital pain points in the organization.²⁹ Adrian Guttridge, Executive Director of Xchanging Insurance, was thinking even further ahead:

‘There is an opportunity for us to do something more and go to market with a robotics automation capability that says: you’re not a client of us today, why don’t we come in and help automate some processes for you? Alternatively, outsource to us a back office function and we will automate and bring it to a completely different price point. We will underwrite costs and you mitigate risk with the option to take it back after three or five years.’³⁰

The Next Steps For WALT

The Xchanging case had set Diana Stevenson’s brain whirring. So many questions! The case showed RPA in an incredibly good light. But how much hard work, talent and preparation really had to go into getting those sorts of outcomes? How did Xchanging’s position compare to that of her HR department in a global business services set-up? Could she go alone into RPA or did she need to persuade David Burroughs to join with her and others? How difficult was it going to be implementing change in a relatively conservative shared services environment as opposed to in a BPO service provider with “technology at its core”? She recalled all those years she spent educating her people into a true service ethos. Could she now credibly argue that machines could do the work better? Were there viable alternatives? And were the job implications a lot more damaging to her staff than appeared to have been the case in the Xchanging case? Would the captive center be the real loser in the face of automation? How could she find the budget, develop the business case and build the capability to develop and deploy robotic process automation? For that matter were there different kinds of automation, and how could she choose between the different RPA suppliers? Valerie had told her there were over 38 suppliers by mid 2016. A more tactical route would help to dodge some of these questions and difficulties, and it was just like a consultant to suggest she, Diana, should think big from the start, but Valerie did not have to live with the consequences of ‘thinking big’.

After sleeping on these and many other questions, Diana next day resolved to talk through the emerging issues with David Burroughs. Or was that the best place to start?

Suggested Questions

Advise Diana Stevenson

1. Identify the types of robotic process automation Diana should consider, and the deployment implications of each one.
2. Are there viable alternatives for her human resource function, that she should consider?
3. Identify the risks and challenges of introducing robotic process automation into a shared service/GBS environment like WALT.
4. Describe the lessons you think Diana can, and cannot, apply from the Xchanging case.
5. Help Diana draft a business case for David Burroughs. At this stage, should it be just about cost savings and higher productivity?
6. Identify the human resource implications of adopting RPA at WALT, and how Diana should handle these in her part of Global Business Services.

Advise David Burroughs

7. Diana Stevenson has sent the Xchanging case to her boss, David Burroughs. What lessons would you recommend him to take on board and apply to the Global Business Services division?
8. When Diana presents her business case what responses should David make?

Advise Diana and David

9. Assuming David gives the go-ahead to Diana, describe the action plan she should draft out in order to automate the onboarding process and the process for updating employee data. Suggest timelines for each activity. Include an assessment of the risks and how these might be offset.
10. Advise David. Does robotic process automation present a new strategic way forward for global business services, or should he treat it as another useful tactical tool for improving GBS performance demanded by the WALT Board and business exigencies?

Glossary of Terms

BPM – Business process management

DR – Disaster recovery

ERP – Enterprise resource planning

F&A – Finance and accounting

FTE – Full time equivalent

GBS - Global business services

HfS – Horses for Sources Research

HRM – Human resources management

IT – Information technology

IUA – Insurance underwriters association

LIM – London insurance market

LPAN – London premium advice note

MI - Management information

ROM – Robotic operating model

RPA – Robotic process automation

SAP – A German based company producing enterprise systems software

SDK – Self development kit

About the Authors

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Endnotes

¹ WALT is a hypothetical company used as a rhetorical device to introduce the reader to the choices faced by private sector firms considering automation. The company, characters, and storylines are an amalgamation of actual companies, people, and events from our research on global shared services, outsourcing, and automation.

² This was a common GBS journey among our case studies, for example at Reuters and Telefónica O2; Lacity, M., and Fox, J. (2008), "Creating Global Shared Services: Lessons from Reuters," *MIS Quarterly Executive*, Vol. 7, 1, pp. 17-32; Lacity, M., and Willcocks, L. (2016), "Robotic Process Automation at Telefónica O2," *MIS Quarterly Executive*, Vol. 15, 1, pp. 21-35.

³ Benchmarking results adapted from <https://www.opm.gov/services-for-agencies/hr-line-of-business/benchmarking/hr-benchmarking/2010report.pdf>

⁴ High levels of turnover in Indian-based delivery centers were often initially high for many companies in our studies; see Lacity, M., Iyer, V., and Rudramuniyaiah, P. (2008), "Turnover Intentions of Indian IS Professionals," *Information Systems Frontiers, Special Issue on Outsourcing of IT Services*, Vol. 10, 2, pp. 225-241. Lacity, M. and Rottman, J. (2008), *Offshore Outsourcing of IT Work*, Palgrave, United Kingdom.

⁵ Practices for engaging employees from Indian-based delivery centers come from cases in Lacity, M., and Willcocks, L., (2015), *Nine Keys to World-class Business Process Outsourcing*, Bloomsbury Publishing, London.

⁶ Process storyline comes from Willcocks, L. and Lacity, M. (2016), *Service Automation: Robots and the Future of Work*, Brooks Publishing, UK.

⁷ Ibid.

⁸ Xchanging case study is adapted from an LSE working paper and a chapter in Willcocks and Lacity (2016). Willcocks, L., Lacity, M. and Craig, A. (2015), "Robotic Process Automation at Xchanging," *The Outsourcing Unit Working Research Paper Series*.

⁹ Figures from Xchanging Annual Report, 2014.

¹⁰ Xchanging Annual Report 2014.

¹¹ Xchanging release "Xchanging 'Full Year Results 2014', February 2015.

¹² 'Technology At Our Core' was the title of Xchanging's 2014 Annual Report.

¹³ Interview with Adrian Guttridge, Executive Director, Xchanging Insurance, May 18th 2015.

¹⁴ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

¹⁵ Xchanging espoused six core values:

- Customer Focus, - 'We focus relentlessly on the customer. We provide flexible, practical and value added solutions. We deliver results by constantly taking the initiative'
- Innovation – 'We challenge the status quo and approach our business with creativity, fresh ideas, lateral thinking and a commitment to do things in a new way. We inspire innovation'.
- Speed and Efficiency - We act quickly and decisively. Speed is of the essence.
- Integrity - We are dependable and responsible people committed to being open, transparent, honest and direct in all of our activities.
- Excellence - We are dedicated to continuous improvement which is reflected in our leadership in technology, implementation, operations and quality standards.
- People - We create value, are empowered to make a difference and are responsible and accountable for our actions. We succeed through teamwork based on mutual respect and the desire to invest in each other's success. – website www.Xchanging.com accessed May 25th 2015.

¹⁶ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

¹⁷ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

¹⁸ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

¹⁹ As can be seen, the model marries well with the Horses For Sources model which also influenced Xchanging's thinking. See Sutherland, C. (2014) *The Evolving Maturity of Robotic Process Automation*. Horses For Sources, Boston, November.

²⁰ Interview with Patrick Geary, Chief Marketing Officer, Blue Prism, March 15th, 2015.

²¹ A more detailed account and analysis of the ROP model appears in the fifth paper in this series, published in Autumn 2015.

²² Interview with Richard Hilditch, Engagement Manager, Blue Prism, April 19th 2015.

²³ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

²⁴ Poppy was named after the day the idea was thought of - Remembrance Day November 2014.

Interview with Amanda Barnes, Xchanging May 2015.

²⁵ By May 2015 it was taking the robot five minutes to deal with 25 LPANS, which formerly took a human two hours and five minutes to do.

²⁶ In practice the goal of Blue Prism, who licensed the software, was not to be cheaper than offshore, but cost neutral at worst, but faster, more replicable and accurate and offering greater local control.

Interview with Patrick Geary, CMO, Blue Prism, January 5th 2015.

²⁷ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

²⁸ Interview with Paul Donaldson, Xchanging, Group Product Manager for Robotic Automation, April 22nd 2015.

²⁹ Interview with Alex Bentley, Strategy Director, Blue Prism, April 16th, 2015

³⁰ Interview with Adrian Guttridge, Executive Director, Xchanging Insurance, May 18th 2015. Note that on December 9, 2015, the Board of Xchanging agreed to terms of the recommended transaction under which CSC would acquire Xchanging at the price of £1.90 per share in cash (representing £480 million). On 5th May 2016, CSC, a self-styled leading provider of next-generation technology solutions and services, announced that it had completed the acquisition of Xchanging plc. CSC's press release of the 5th May 2016 said that: *'With the acquisition of Xchanging, CSC will be at the heart of the insurance industry's digital transformation. The acquisition is a cornerstone of the company's strategy to lead clients on their digital journey with next-generation IT offerings. That strategy leverages partners, industry software and deep domain expertise'*.