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Implementing Centralised IT Service Management: Drawing Lessons from the Public Sector

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Abstract

The IT service management model represents a paradigm shift for IT organisations as it deemphasizes the management of IT assets and focuses on the provision of quality end-to-end IT services. This paper presents part of an in-depth study that examines the experience of a government agency, Queensland Health, in the implementation of a centralised IT service management model based on the ITIL framework. The paper sheds light on the challenges and breakthroughs, distils a set of critical success factors and offers a learning opportunity for other organisations. Outsourcing some activities and tool requirements to vendors was seen as one contributor to success although ensuring effective technology transfer to in-house staff was also necessary. Another success factor was centralisation of IT services. Commitment of senior management was also crucial as was a recognition of the need for effective change management to transform the organisational culture to a service-oriented focus.

Keywords

Centralised IT service management, IT Infrastructure Library, ITIL, public sector, case study.

Introduction

In the past years a confluence of circumstances have driven IT functions to become more service-oriented so that they can be more aligned with the business objectives of their organisations. These factors include the growing pressure for organisations in the public as well as private sector to operate on a more cost-effective basis, the increasing dependence on IT for near real-time information to support mission-critical activities, the need for enhanced reporting integrity so as to meet stricter regulatory requirements and more exacting demands from users and senior management for reduction in the level of tolerance and failures in the IT infrastructure. Evidence is mounting that many IT functions are accomplishing this change by adopting the IT service management (ITSM) model and that they are making significant inroads in their endeavour (Bushell 2005; Dubie 2004; Worthen 2005). The ITSM model represents a paradigm shift for IT functions as it deemphasizes the management of IT assets and focuses on the provision of quality end-to-end IT services. While there are many avenues for IT functions to achieve the transformation, the great majority of them have chosen the IT Infrastructure Library (ITIL) framework, to provide the implementation guidance and a common language of communication.

This paper presents the initial findings of an in-depth study that examines the experience of Queensland Health (QH), a government agency, in the implementation of a centralised IT service management model based on the ITIL framework. It attempts to shed light on the challenges and breakthroughs met by QH, distil a set of critical success factors and offer a learning opportunity for other organisations that are contemplating on embarking or are in the midst of a similar endeavour.

IT Service Management

IT service management is the provision of quality customer service by ensuring that customer requirements and expectations are met at all times (OGC 2002). Sallé (2004) observed that IT functions typically follow a three-stage evolution in their relationship with the businesses they support: IT infrastructure management, IT service management and IT governance. During the IT infrastructure management stage, the focus is on maximizing the return on computing assets and taking control of the infrastructure, including all hardware, software and

databases. However, when organisations advance to the IT service management stage, the IT function actively identify the services its customers need and focus on planning and delivering those services to meet availability, performance, and security requirements. In addition, service-level agreements are managed, both internally and externally, to meet agreed-upon quality and cost targets.

Information systems researchers have acknowledged that ITSM is an emerging area for further study and that it should be incorporated into the IT and IS curricula of business schools (Galup et al. 2007; Rai & Sambamurthy 2006). According to Galup et al., providers of IT services can no longer afford to just focus on technology but should also consider the quality of the services they provide and the relationship with customers. They further note that ITSM is process focused, shares common themes with the process improvement movement (e.g., TQM, Six Sigma, Business Process Management, and CMMI) and facilitates interactions of IT technical personnel with business customers and users.

The IT Infrastructure Library (ITIL) Framework

The ITIL framework is a set of comprehensive and coherent publications providing descriptive guidance on ITSM. It was originally developed by the Central Computer and Telecommunications Agency (CCTA), a British Government agency, in the 1980s to promote efficient and cost-effective IT operations within government controlled computing centres. The framework is currently administrated by the Office of Government Commerce (OGC) and has evolved into the ISO/IEC 20000 standards. While ITIL is a best-practice process framework that organisations can adopt as a basis to implement and improve ITSM processes, ISO/IEC 20000 serves a different purpose in that it is used in independent third-party certification audits of ITSM capabilities.

The two primary components in the ITIL framework i.e. service delivery and service support consist of core processes that IT organisations must put in place in order to provide quality IT services for their customers. These core processes, which also include the service desk function, are shown in Table 1. The service support processes (operational level) focus on the users of the IT services and are primarily concerned with ensuring that users have access to the appropriate IT services to support their tasks. The service delivery processes (tactical level), on the other hand, are associated with the longer-term planning and delivery of quality IT services which customers require of their IT providers. ITIL makes a distinction between users and customers: customers are the people in an organisation who commission and fund the IT services whereas users are those who use the services on a day-to-day basis.

Service Delivery (Tactical Level)	Focus: Business as the customer of the IT services	
	Service level management	Negotiates service level agreements (SLA). Ensures that all ITSM processes, operational level agreements and underpinning contracts are appropriate for the agreed service level targets.
	Financial management	Manages an IT service provider's budgeting, accounting and charging requirements.
	Capacity management	Ensures that the capacity of IT services and the IT infrastructure is able to deliver agreed service level targets in a cost effective and timely manner.
	IT Service continuity management	Manages risks that could seriously impact IT services. Ensures that the IT service provider can always provide minimum agreed service levels and planning for the recovery of IT services.
	Availability management	Defines, analyses, plans, measures and improves all aspects of the availability of IT services. Ensures that all processes, tools and roles are appropriate for the agreed service level targets.
Service Support (Operational Level)	Focus: User of the IT services	
	Service desk (service function)	The single point of contact between the service provider and the users. Manages incidents and service requests and also handles communication with the users.
	Incident management	Manages the lifecycle of all incidents. The primary objective is to restore normal service operations as quickly as possible.
	Problem management	Manages the lifecycle of all problems. The primary objectives are to prevent incidents from happening and to minimise the impact of incidents that cannot be prevented.
	Change management	Controls the lifecycle of all changes. The objective is to enable beneficial changes to be made with minimum disruption to IT services.
	Release management	A collection of hardware, software, documentation, processes or other components required to implement approved changes to IT services.
Configuration Management	Responsible for maintaining information about configuration items required to deliver an IT service, including their relationships.	

Table 1: Key service delivery and service support processes (adapted from OGC 2006)

ITIL is well established in Europe, particularly in the government sector, and there is a growing momentum in North America and other regions to adopt the framework (Barton 2004; Computer Economics 2005). Peynot (2006) noted that ITIL has been deployed as part of the IT governance framework, particularly with CobiT, and

that full ITIL implementation is rare. In the 2005 survey among the attendees at the IT Service Management Forum (itSMF) national conference it was established that many Australian organisations from the private as well as public sector have adopted ITIL and were making substantial progress in implementing the framework (Cater-Steel & Tan 2005). That Australia is at the forefront of ITIL adoption is not surprising in view of the strong links between Australia and the UK.

Research Methodology

The study employs the in-depth case study method for gathering evidence. This approach is considered to be appropriate in view of the exploratory nature of the investigation, in particular, its focus on a contemporary information systems issue, and the relatively understudied research area (Yin 1994). A case study protocol in the form of a structured questionnaire was used during the interview with QH staff who were involved in the ITIL project. This approach facilitated the researchers in steering the interview process and to seek clarification along the way. The interview was tape recorded and transcribed and the transcript sent to the QH staff for verification and subsequent use in the analysis. Information gathered from the interview was triangulated with other information that the researchers have gathered from public presentations and forums relating to the QH ITIL project. Other secondary data for the study were obtained from official documents provided by QH, their corporate websites, practitioner journals (including itSMF bulletin) and online reports pertaining to QH's Transformation Program and ITIL implementation project that are available in the public domain.

The QH Project

Queensland Health (QH), as the largest state agency in Queensland, is a highly complex and widely distributed organisation with a A\$400M capital program over four years and staff strength of about 50,000 employees. QH recognises that information is a key enabler to improving the health of the state's four million residents and this is manifested in the building of health information systems that are seamless and patient-oriented and not just management-oriented. The responsibility for building these systems lies with QH's Information Directorate (QHID), which is acknowledged as the largest IT operation in Queensland with over 800 staff and 285 networked sites. QHID provides IT services to the entire user base at QH through a repertoire of support systems that provide information that clinicians use to make life and death decisions. These support systems are designed to operate on a 24 x 7 basis right across the state.

In 2004 QHID reorganised and consolidated its IT operations bringing together five previously separate IT functions in response to concerns that a decentralised structure was not meeting the level of IT services that users were expecting and amidst media reports of health service problems such as waiting lists at hospitals, clinical workforce shortages, quality of clinical services and the integrity of public reporting. Shortly after the reorganisation, the Queensland Government commissioned an independent review, named the Queensland Health Systems Review (QH 2005) to look into the problems that QH was experiencing and identify a range of reforms. In their final report, the review highlighted a number of problems including the inability of the IT function to implement major systems within desired timeframes, poor benefits realisation processes, a governance process that may inhibit innovation, inadequate provisioning of IT system support in districts, and the perception that "the IT tail was wagging the business dog". In particular, the review upheld the earlier decision by QHID to centrally manage and coordinate information and IT resources but with IT services being delivered "as close to coal face as possible" i.e. physically decentralised.

The Transformation Program

The review supported the Transformation Program (TP) which was already in its early stages of inception. TP had the broad aim of overhauling the "overall information systems delivery environment" within QHID. Evidence that was advanced to support this complex and across-the-board program includes a history of quality issues with enterprise applications at QHID. Users were unable to play an effective role in the implementation of IT projects due to their lack of information management skills. A low satisfaction level existed among users with the delivery and support of IT services. IT services were not underpinned with performance monitoring or quality support processes. In the words of one of the staff interviewed, QH was operating "silo cottage industry type IT shops" that needed to be consolidated so that users can benefit from the provision of a closely regulated end-to-end service process.

The transformation program, in essence, is an integrated change management program that is directed at moving QHID to a new service-oriented organisational structure and new mode of operation in term of both governance and IT service delivery capabilities. The agency recognised that it was a complex initiative, one that would have significant impact on current practices and staffing within QHID, existing business processes, and future user-IT relationships. QH is also aware that the major risk faced by the program is the long lead time before tangible results will accrue. To ensure that the longer term gains from the transformation program will be less at risk, QH

instigated a number of initiatives, some of which are outlined in the Queensland Health Systems Review Report, to produce short term tangible results. One of these initiatives calls for the development of a sustainable organisational capability to undertake IT service management more effectively using the ITIL framework. As the framework was new to QH, established consultants and vendors were brought in during the early stages of the ITIL implementation project to provide the needed methodological expertise, ITIL training and software tools.

The Journey So Far

As at end of 2006, QHID has established the processes for incident management, change management and configuration management, and was on the verge of completing those for release management and problem management. At the same time the existing eleven zonal help desks were consolidated into a single corporate-wide service desk to enhance the ability for QHID to have incidents resolved at first point of contact. With the accomplishment of the centralised service desk and all processes within service support, QH reached a significant milestone in their ITIL project. Attention was next turned to service level management, which is a cornerstone of the service delivery component in ITIL, and other complementary processes relating to customer engagement and asset administration. A mechanism for the continuous improvement of the newly installed processes was also instituted.

The key factors and achievements of QH's ITIL implementation project are summarised in Table 2 based on an adaptation of the four-level IT service performance management framework developed by Praeg and Schnabel (2006).

Perspectives	Key factors	Achievements
Management	Senior management commitment	<ul style="list-style-type: none"> Process owners at senior management level are appointed. Senior managers from corporate HQ and clinical areas are represented in the Operations Board to evaluate any impacts on their respective areas.
	Benefit management	<ul style="list-style-type: none"> Benefit register and innovative concept of "savings bank" ensure that the envisaged benefits for each new process are being realised.
	Consultant & vendor relationships	<ul style="list-style-type: none"> Open and honest relationships with consultants and vendors facilitated knowledge transfer and expeditious resolution of project issues.
	Project management	<ul style="list-style-type: none"> Project steering committee chaired by CIO meets fortnightly to monitor progress via dashboard reports. Use of time-boxing technique and small working groups ensure that the tight project deadlines are met.
Customer	Change management	<ul style="list-style-type: none"> Organisational issues are addressed as part of the on-going larger transformation program. Staff are updated on the implementation progress through newsletters and the corporate intranet
	Training	<ul style="list-style-type: none"> Staff are provided ITIL foundation training with a small number of them attaining the ITIL Practitioner & Manager certificates.
	Customer satisfaction	<ul style="list-style-type: none"> Surveys are conducted by an independent party to gauge the level of customer satisfaction and to benchmark against the results of other organisations.
Process	Process methodology	<ul style="list-style-type: none"> Completion of "ITSM Process Development Handbook" to provide guidelines and templates for IT staff and users involved in the project. "ITSM process maturity assessment" method is employed to assess and prioritise the implementation of each ITIL process.
	Process performance	<ul style="list-style-type: none"> KPIs for implemented processes are monitored and reported so as to ensure that these processes achieve the stated objectives. ITSM targets captured in QH's Balanced Scorecard are published on the web site for reference by customers and staff.
Tool	ITSM toolset	<ul style="list-style-type: none"> A single tool vendor provided an integrated and automated ITSM toolset.

Table 2: Achievements of QH's ITIL implementation project

Senior management level staff were allocated process owner roles to ensure that the project progress was sustained as they were able to deal with "change resistors" and make decisions on the spot. This decision further

reinforces the message that end-to-end service provision is what QH senior management is looking for. A customer board named the "Operation Board" composing of senior customer representatives from both corporate and clinical areas was established to review the performance of QHID and provide a customer perspective on any proposed initiatives and changes. Fujitsu Australia was engaged to develop a process design methodology handbook to provide guidance to the implementation team members. The detailed "how-to" instructions in the handbook ensure consistency and quality during the formulation of the solutions. At the start of the project a process maturity assessment was conducted across QHID's processes to establish the current state of the process chain, ascertain the interfaces between the different processes, evaluate the impact from the change, and determine the optimal implementation sequence. The forthright dealing between QH and the consulting house further proved to be very fruitful.

A key element in the process design methodology is the benefit realisation plan. The purpose of the plan is to identify and manage the realisation of the benefits that are attached to each new process. These benefits, which include both financial and non-financial objectives, are recorded in a benefit register and tracked by the project executive team on a monthly basis. When any financial savings are realised they are deposited into what is known as a "savings bank" for later withdrawal and use in future improvement initiatives. Each process is also associated with a set of key performance indicators (KPIs) e.g. phone call queue length, percent decrease in unscheduled service unavailability caused by IT changes, and percent of incidents raised without supporting change management database information. These KPIs are monitored and reported to senior management to ensure that the new processes are achieving their stated objectives. Furthermore, QHID incorporated key metrics into their balance scorecard to provide indications as to whether the implemented processes are meeting their intended targets.

To fast track project execution, QHID introduced the time-box approach into the ITIL project. This technique, which is commonly employed in rapid application development projects (Martin 1991), is grounded in the philosophy that dates are not flexible but deliverables are. QHID had previously suffered from a "get agreement from everybody on everything" syndrome which meant that progress was slow. The time-box approach required working group members to review documents within a specified time period on a management-by-exception basis i.e. no response means agreement. It also implies that if there was a slippage, consideration was given to what could be removed from scope so that the deadline can be met. QHID soon developed a mantra of "progress not perfection" after recognising that 80 percent is a great start and that the other 20 percent can be completed through continuous improvement.

The change management issues faced by the agency are formidable in view of the scope of the transformation program which calls for a drastic reduction in the number of position descriptions and operational areas in QHID's new organisation structure. To alleviate the anxiety of the staff, QHID took pains to build transparency into the project execution by disseminating relevant information through the corporate newsletters and intranet and during team briefings. Senior user managers represented in the Operations Board were also provided with performance reporting on QHID's accomplishments so that they can relay the results to their departments. QH staff were enrolled in ITIL Foundation training courses, some progressing to the advanced ITIL Practitioner & Manager level, to provide a common ITSM language of communication. An important step that QHID further took was to commission Gartner to conduct the Customer Satisfaction Survey to gain better insights of the needs of the customers and gauge their level of satisfaction. Gartner further provided the ability to benchmark the results against that of other organisations, both national and internationally. It was indeed gratifying to QH when it was established that their overall satisfaction level was higher than the Asia Pacific average.

The complexity and diversity of QH's ITSM requirements rendered it difficult to rely on a single centralised tool to manage all processes. Fortunately, the agency was able to engage the assistance of HP, a major ITSM tool vendor, to customise an integrated and automated toolset that is consistent with the ITIL framework and advise QHID on the technical implementation. The honest and constructive relationship pursued between the QH and HP further facilitated knowledge transfer to QH staff.

The ITIL implementation progress achieved to-date by QH is notable in view of the complexity and size of the organisation, the close scrutiny and media attention that they were continually subjected to, a completely new leadership team at QHID, and role and accountability uncertainty that QHID's staff have to contend with during the organisational restructuring.

Challenges and Breakthroughs

QHID experienced two failed attempts at the beginning of the ITIL project. The initial setback was attributed mostly to managerial and organisational factors. To begin with, although the project has strong endorsement from QH senior management, the commitment was not manifested in the project implementation. For instance, process owners were not staffed at the right level but were instead arbitrarily allocated. Without the appropriate authority and lacking senior management perspectives the incumbents were not able to connect QH's strategic

directions with the process solutions or maintain the project momentum. The project was also conducted on a “business as usual” approach to the extent that schedule, resource and expertise issues were not given due attention. A comment from one of the project team members aptly summarises the situation: “We just can’t do it anymore. We’ve got to keep the lights on as well!” Furthermore, the initial decision to integrate ITSM and Quality Management System processes i.e. ISO9000, TQM and Six Sigma diluted the focus of the project and it was abandoned. Crucial change management issues arising from the reorganisation of the IT function were not accorded priority and subsequently led to pockets of resistance and an atmosphere of negativity and scepticism. To compound the problem, the effort to obtain buy-in from staff through extensive consensus seeking proved to be counterproductive as their new roles in the restructured organisation were not resolved.

Once the teething issues from the two false starts were addressed and appropriately rectified the project began to show dramatic results. The QH CIO at the “Project Management and Organisational Change” 2006 national conference shared a number of key insights into the challenges and breakthroughs in the transformation program (Walsh 2006), which also hold true for the ITIL project, and they are summarised here:

- Strong executive management support has removed and/or mitigated any program risks and issues which had the potential to be “show stoppers”;
- Open minds and multiple perspectives with the various consultants have enhanced the program scope and performance;
- A collaborative engagement model was a critical success factor but sheer “bloody mindedness” delivered the results;
- The degree of parallel activity scheduled was unrealistic based upon the available capacity within the QHID branches;
- Baseline performance measures are critical and should have been defined in more detail at program initiation;
- Realization of short term cashable benefits are difficult until the organisation structure has been stabilised.

Discussion

To understand the successful progress made by QHID, it is important to consider why the first attempts to implement ITIL failed. At the time, QHID was under significant pressure to demonstrate early results to show that there was a turnaround in the performance of the organisation. QH strived to offset the negative media attention at the time resulting from the deaths caused by disgraced medic Dr Jayant Patel. The QH Annual Report recognised that the agency was ‘experiencing extreme demand pressures caused by population growth, advances in medicine and new technology, critical staff and infrastructure shortages, and limited service capacity in areas such as mental health and Indigenous health’ (QH 2006).

The initial decision to integrate ITSM processes and existing QMS processes was flawed for two reasons. Firstly, the integration work was not straight forward: it required additional resources and progress was delayed. Secondly, QHID did not make use of the strength of ITIL which is its philosophy of continuous improvement. After the initial failures, QHID started a continuous improvement cycle around the service support processes that they had implemented. The need for incremental, facilitative approaches to overcome resistance and counter-implementation was stressed by Keen in relation to information systems implementation (1981). 25 years later the same message applies in this case of implementing service management improvements.

QHID recognised the need to change the culture from a technology focus on to a focus on service. Golden (2007) asserts that “when well-executed, ITIL can shift an IT organization’s culture and focus from the technology to the business strategy ... but culture change is probably the hardest type of change to manage, and ITIL’s processes are only as effective as the degree to which your staff adopt them”. The culture change at QHID was difficult to achieve during the organisation restructure. However, when senior staff were appointed as process owners, trained and provided with resources, the culture changed.

Successful Vendor Relationships

The decision to outsource some of the activities and tool requirements to vendors such as Fujitsu, HP and Gartner proved to be effective. It is interesting to note that different vendors were engaged at different stages of the project. QHID were careful to source the required expertise at the right time and ensured effective technology transfer from the consultants to the QHID staff. The importance of forging an open and honest relationship with vendors is usually discussed in the context of strategic and longer term outsourcing projects but is evident in this case. Applegate, Austin and McFarlan (2003) noted that “a strong partner (in an outsourcing project) will give an organisation an island of stability in a turbulent world”. The contribution of trust, cooperation and communication to outsourcing success was highlighted by Grover et al. (1996) and they stressed the ability of the vendor to provide service quality beyond expectations. In the QH project, the vendors

will benefit from pursuing such a positive partnership in view of QH's status as the largest Queensland Government agency, and in the longer term through subsequent business opportunities within the Queensland Government after the completion of the QH project. As well as the smooth implementation of the ITSM toolset, the successful working relationship between QHID and HP personnel led to HP nominating QH for the inaugural 2006 itSMF Australia ITIL Implementation Award, which QH won over three other contenders.

Centralised vs Decentralised IT Services

The importance of having the correct organisational structure has been stressed by many researchers (for example Csaszar & Clemons 2006). It is important to decide which structure is the most effective: centralised, federal, or decentralised (Peterson 2003). Peterson claims the federal model offers the 'best of both worlds' but can be difficult to implement as it "challenges managers in local business units to surrender control over certain business-specific IT domains for the well-being of the enterprise" (Peterson 2003, p. 47).

One of the major changes saw the IT service provision centrally managed and coordinated while maintaining service to the geographically dispersed user base. The ITIL service desk function promotes the concept of a single point of contact between the service provider and the users. This is essential to effectively manage service requests and incidents. Seven other reasons are provided by Applegate, McFarlan and Austin (2003) as to why organisations should centralise their IT resources: to enhance the ability to recruit and retain specialised technical personnel by providing more obvious career paths for talented employees; to achieve dividends from a standardised computing infrastructure (reduces the complexity and cost of maintaining IT capabilities); easier IT management as standards are developed and enforced; to apply expertise to envision the possibilities inherent in new technologies and to assess the feasibility of technical applications; to coordinate physically distributed databases to provide corporate access; to provide a focal point for conceptualising and developing the IT architecture; to produce realistic systems development and deployment estimates.

Senior Management Support in a Corporate-wide Initiative

The importance of senior management support in all organisation transformation initiatives is well researched, however practical advice on achieving ongoing commitment is less evident. In many cases, the initial support from senior management wanes as their focus shifts to new challenges and projects. The involvement of senior management is essentially an IT governance issue as it includes leadership, organisational structures and processes to ensure that the organisation's IT sustains and extends the organisation's strategy (Sallé 2004). A sustainable IT governance implementation framework is proposed by De Haes and Van Grembergen (2005) focusing on structures, processes and relational mechanisms where structures involve the existence of responsible functions such as IT executives and a diversity of IT committees. In this case, the Operation Board of senior customer representatives provided governance for the transformation project. Processes were managed through the use of key performance indicators and balanced scorecards.

Despite its intuitive appeal, investment in ITIL requires economic justification of benefits and to date there has been little research undertaken to quantify the benefits from ITIL implementation. In fact, there have been only three empirical studies investigating benefits from ITIL implementation. In South Africa, Potgieter, Botha and Lew (2005) conducted a case study with a government organisation and concluded that both customer satisfaction and operational performance improve as the activities in the ITIL framework increase. Cater-Steel, Tan and Toleman replicated the research conducted with six German organisations (Hochstein, Tamm & Brenner 2005; Hochstein, Zarnekow & Brenner 2005) with 12 organisations in Australia, United Kingdom and New Zealand, and found the benefits realised by ITIL included improved focus on IT service management, more rigorous control of testing and system changes, more predictable infrastructure, improved consultation with IT groups within the organisation, smoother negotiation of service level agreements, reduced server faults, seamless end-to-end service, documented and consistent IT processes across the organisation, an effective configuration advisory board, and consistent logging of incidents (Cater-Steel & McBride 2007; Cater-Steel, Tan & Toleman 2006; Cater-Steel, Toleman & Tan 2006). These organisations reported that they found it difficult to determine tangible benefits from ITIL adoption. QHID have taken a novel approach of the savings bank whereby tangible benefits are determined and deposited and then resources are made available from the savings bank for subsequent funding requests. The benefits realisation plan enhanced communication between senior management and the project team and contributed to ongoing commitment to the project.

Conclusions

In conclusion, it is evident that there were many critical success factors which have contributed to the success of the ITIL project at QHID. Other organisations embarking on a similar endeavour are encouraged to leverage vendor expertise, from multiple vendors if necessary, and ensure technology transfer is effected to inhouse staff. It is not sufficient to have IT management support: involve customer representatives from the business in high level committees to ensure the project is aligned with corporate strategy. Put in place a benefits realisation plan to track and communicate tangible and intangible benefits of the project. Change management is essential to

transform the culture of IT staff from technology- to service-focus. When change includes organisational restructuring, careful planning and reinforcement of the project objectives needs to be undertaken. It is critical that change champions, in this case the process owners are identified and adequately resourced and supported.

The primary limitation of this research to date is that the interviews and documents have only involved staff who were actively involved and supportive of the project. No doubt there would be opposite views both from IT staff and users, although the customer satisfaction survey returned favourable results. To extend this research and gain a broader view, interviews with a wider range of stakeholders will be conducted. In future, the study may be extended to analyse other components of the transformation program, and also to compare the QHID ITIL experience with that of other large IT organisations.

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