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IT SERVICE MANAGEMENT – AND BEYOND

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ABSTRACT

Macquarie University Library identified a need for a responsive and scalable way of delivering services, particularly IT services, which made best use of existing resources, developed a shared understanding of service provision across the Library and created a cycle of continuous improvement. To identify best practice in service delivery, Macquarie University Library looked to the IT industry and an internationally recognised framework for IT service improvement – the IT Infrastructure Library (ITIL). Through a process of identifying a vision for the service, and assessing the gap between current service provision and vision, the Library identified key ITIL processes and, from these, developed four IT projects to spearhead the move to a continual service improvement process. The Library has now begun applying the ITIL framework to traditional library services to redefine its service delivery model, break down existing silos and rethink service provision. The aim is to create a framework which can address the management of incidents and problems, availability and capacity when delivering physical and electronic services. The successes, issues and challenges in implementing this quality methodology, and sustaining it, will be discussed from both an IT and a library perspective.

1   INTRODUCTION

In searching for a way to better manage the technology which now underpins all library services, and free up staff to concentrate on the development and delivery of new services, Macquarie University Library looked to the IT industry to find a robust quality methodology and examples of 'best practice'. Of several methodologies currently in use in the IT industry, the IT Infrastructure Library (ITIL), developed by the UK Government and first initiated in 1989, stood out. Focused squarely on service delivery rather than technology specific, the ITIL IT Service Management (ITSM) approach, based on British Standard 15000, is being used by an increasing number of Australian companies and government departments (Office of Government Commerce, 2004). In an assessment of the relevance of ITIL to the Australian market in 2001, Gartner analysts John Roberts and Simon Mingay concluded that 'Repeatable, documented processes are essential to improving IT service delivery and management. The ITIL framework provides an effective foundation for quality IT service management. Any Australian enterprise considering quality improvements in service delivery should start with the ITIL' (Kidman, 2003). The benefits of choosing ITIL for Macquarie University Library were the focus on service delivery rather than specific technologies; its adaptability for use by small or large organisations, and the opportunity it offered to apply the same quality principles and processes to library services as well as IT services. While ITIL was initially singled out for the improvements it could bring to the provision of IT services, we also recognised that ITIL focuses on developing a service culture, where the customers can expect defined, consistent service which offers value for money. Implementing ITIL processes for the Library offered an opportunity to reinforce such a culture and expectations, and a chance to rethink existing service delivery at Macquarie University Library.

2   DISCUSSION

2.1   THE NEED FOR AN IT SERVICE MANAGEMENT PROCESS

Macquarie University Library realised that, to free up staff and funds for development of new services, we had to manage IT in a consistent manner to improve service delivery, change the labour-intensive nature of the existing IT management process and reduce the costs of maintaining our IT. Stern (2001) notes that organisations typically invest around 30 per cent of their IT budgets to develop and implement new IT services; the remaining 70 per cent goes to managing existing services. The Fifth Annual Educause Survey seems to indicate that this is a common issue; indeed funding for IT was

identified as the top issue for university information technology leaders (Spicer, De Bois, & EDUCAUSE Current Issues Committee, 2004). The review of the survey results suggests that the most effective approach to funding IT is to standardise hardware, software and support services to enable economies of scope and scale in delivering services, and it is this standardisation of service delivery which we identified as critical to improving our IT services. Our experience was similar; much of our time and budget was spent on 'fire-fighting', dealing with incidents which reoccurred because we had no standardised procedures for dealing with them when they first occurred, nor any consistent processes for dealing with infrastructure and system changes. The Educause survey also identified the new issue of support services and service delivery models, which is expected to become significant in 2005. The areas of concern identified within this issue include responsiveness of support services, use of knowledge bases, methods of assessment and review, standards and service level agreements: areas which the IT Infrastructure Library processes address.

For us, the benefits appeared to much outweigh the cost and effort involved in implementing a service management process. The University of Sydney Library reported a number of benefits from implementing ITIL processes in 2000, including reducing the amount of time spent firefighting by 50%, and reduction of resolution and response times by 50% (Stern 2001). If Macquarie University Library was to be able to continue to offer innovative services, we had to better manage our existing services.

2.1.1 WHO ELSE IS DOING IT?

ITIL is considered one of the most widely accepted IT process management frameworks in the world, with many thousands of businesses, governments, non profit organisations and other institutions (including universities) using it (Kara, 2002). In the Australian university sector, it is certainly proving to be a popular method for managing IT services (though in some universities it has been integrated for quite some time) (see Stern, 2001). Institutions such as RMIT, Monash University, Queensland University of Technology (QUT), University of Ballarat and Edith Cowan University are now corporate members of the Australian chapter of the IT Service Management Forum (IT Service Management Forum, 2004). Papers from university staff are also appearing at conferences, for example, the South Pacific User Services Conference held in late 2004 included several papers about ITIL implementation from Deakin University and Griffith University (16th Annual South Pacific User Services Conference, 2004).

2.2 DOING IT OUR WAY

In selecting ITIL as the quality framework for the provision of IT services, Macquarie University Library made a commitment to embed this continual service improvement approach into all areas of the Library and not just the IT department. Seventeen staff, including the University Librarian, all Library managers and IT staff, undertook the IT Service Management Essentials Foundation Certificate training. The training gave the group a common understanding of the process and a common language for describing and discussing service frameworks and improvements, and provided a core group of 'advocates' for the process. The Library also committed resources to the implementation, employing consultants to help implement an IT Service Management framework and process, as experience in other organisations had shown that implementing ITIL can be a long and challenging process (Dubie, 2004). The engagement of consultants created a focus which energised the staff involved, maintained the momentum for the service management projects and, in particular, provided expertise and guidance in an area that was new to the Library.

To begin IT Service Management improvements, the Library needed to create a vision for service management: to define our goals and the sort of organisation we wanted to be. The outcome of this process was the identification of a mission, vision and purpose, which defined our 'end point' for the process we were about to implement. To ensure the applicability of the continual service improvement process across the library, we identified goals that could apply equally to library and IT services.

Once the end goals were defined, a 'gap analysis' was needed. Through a rigorous process of assessment based on the maturity, penetration, efficiency and effectiveness of our processes as compared to ITIL benchmarks, we identified the strengths and weaknesses of our current IT service delivery processes. The assessment process involved all staff who had undertaken ITIL training, as

well as other Library staff and clients so that all stakeholders had some input. Through this assessment we identified those processes that were weak and, with improvement, would have the greatest positive impact on services. It was agreed to begin with four initial IT projects: Service Desk/Incident Management (SD), Service Level Management (SLM), Problem Management (PM) and Change/Release Management (CM). Other projects, in particular Capacity and Availability Management, will be undertaken once the initial program is complete.

2.3   A WIDER VIEW OF ITIL: APPLICATION TO LIBRARY SERVICES

The Library already had a commitment to continuous improvement using the 'Plan/Do/Check/Act' cycle; the implementation of ITIL processes provided us with a broader framework and a methodology for including service improvement processes in organisational design. The actual implementation sparked the beginning of a change in the way Macquarie University Library carries out its business, by separating projects from operations, and identifying and adopting a project management methodology and process. We chose Prince 2 as our methodology, and modified and scaled it to suit the Library's needs and the size of most of our projects. A process for identifying, approving and resourcing projects was established. Implementing a project management process provided a management framework which had not formally existed. It introduced the principle of full resourcing for identified projects and full accountability – an identified project manager, a budget, project plan and a formal review of project outcomes to identify whether projects did indeed meet their initial objectives. Each project is also required to have a communication plan, outlining what will be communicated to whom, when and how – critical to the implementation and success of any project. While the project management methodology was originally introduced to manage IT Service Management projects, the methodology is now being used to manage all projects undertaken by the Library. This has resulted in a more rigorous approach to identifying, selecting and approving projects and ensures that projects are related to the Library's strategies and core business.

The adoption of an IT Service Management framework also had a wider influence on the Library. The Library has begun a process of organisational change and restructure and many of the principles of IT Service Management will underpin the changes that will be made over the next one to two years. The establishment of a virtual Project Office within the Library that provides a structure for managing, staffing and resourcing projects is one of the first changes in this process. Aspects of the organisational change project itself will be managed as projects and resourced accordingly. The first project in the change process is the implementation of an IT Service Desk, based on Service Desk/Incident Management principles, which manages incidents and service requests for both Library staff and all Macquarie students. The adoption of IT Service Management has also supported a cultural change towards service delivery as seen from the client's perspective, and ongoing evaluation to ensure continual improvement of services.

2.4   SOME REVELATIONS

Even though we have been working on this program for most of 2004, the full impact of what we have tried to achieve may be difficult to measure for some time. However, so far the signs look extremely positive. Due to careful planning, the four projects that we chose have proven to be right ones with planning of a unified IT Service Desk being the most significant success so far. Prior to ITIL, one department (customer services) in the Library provided a helpdesk service for Macquarie University staff and students and a separate IT department provided a helpdesk service for Library staff. The customer services department used the service management tool, Remedy, to manage its service whereas the IT department had no automated system. The SD Project goal is to change this by converging the two services. This will not only streamline the incident management process, thus dramatically improving service and cost effectiveness, but will also broaden staff knowledge and expertise in both IT and non-IT (people management) areas.

The SLM Project has enabled the Library to undertake an extensive review of its IT services. The ITIL process is based on IT services outlined in an organisation's service catalogue. As a result, one of the first activities for the Library's IT staff in its preparation for implementing ITIL was to write a service catalogue. However, in our SLM Project planning we soon discovered that a service catalogue must be prepared from the *customer's* point of view (for this project, a 'customer' was the manager for each Library department). We found that what IT staff define as a "service" is quite different to what a customer may see. For example, IT staff considered that providing and maintaining servers is a

service whereas customers want an 'online service' that provides access to email, the internet and remote file storage. They want this service to be fast and reliable but are not interested in how this is done. As a result, the SLM project will enable the Library to prepare a comprehensive service catalogue that the customer understands. The next steps of the project include agreeing on service level agreements for each service between the customer and the IT department, to prepare underpinning operational level agreements within IT, and to review and update contracts with external IT vendors.

The final two projects, Problem and Change/Release Management, have also undergone a comprehensive planning process. Like the others, this has enabled the Library to review in depth how to deal with several IT operations that have proven difficult to manage. PM will provide the Library with a process for dealing with recurring incidents that should be not fixed but rather investigated as 'problems', and a process of change/release management will ensure that decisions and actions are made after all issues have been considered and communicated to relevant parties.

The progress of the IT Service Management projects has not been entirely smooth. Illness, a change of personnel, competing demands and a steep learning curve all conspired to delay projects, and this in itself was a learning experience for us. A complication to implementing the first stage of the process has been reconfiguring our service management tool to reflect the ITIL process. Macquarie University Library purchased Remedy several years ago to manage its helpdesk and now the University's IT department also uses it. The system has been configured and reconfigured to cater for these, sometimes opposing, needs thus creating some argument on how best to have a system designed to suit ITIL. The problem is exacerbated due to the University not having a developmental server, and the cost of upgrading the system and purchasing ITIL compliant modules. The Library has worked around these issues by not automating some of the ITIL processes, eg. monitoring of problems. This certainly increases staff costs and is not efficient in the long-term.

The cost of implementing the process is certainly not cheap. Of course the ultimate goal is to provide cost effective consistent and timely service and ITIL will certainly achieve this but it does require a commitment of substantial outlay if it is to be done well. As well as the cost of purchasing or upgrading a service management tool, staff training costs are high. At Macquarie University Library we also employed external consultants to take the Library through the planning stage and in establishing the four projects. This is very expensive but we believe that having the necessary expertise available for advice and direction has been essential to our success.

2.5   FUTURE PLANS

Since the University Library has begun implementation of an IT Service Management process, Macquarie University's central IT Services has also adopted the IT Service Management framework. Having a common framework for service delivery and support provides many benefits: both groups have a common understanding of the processes and benefits, a common 'language' for describing processes and most importantly, common goals – the provision of quality electronic services to students and staff of the university. A shared understanding of IT Service Management principles and the benefits of implementing a continual service improvement process aids the implementation of service management processes, such as the introduction of service level agreements between the two departments. Both groups are able to discuss issues with, and share progress on, ITIL projects. Having both departments utilising the same framework is particularly useful for 'crossover' points between the Library and IT Services; for example, the Library runs the Student IT Help desk as a service desk providing a single point of contact for students, however IT Services provides second and third level support to this desk. Both service providers understand ITSM principles and are able to work together more effectively, synergising processes rather than maintaining two different service models.

The Library is now moving to apply the IT Service Management framework to general library services, capitalising on the fact that ITIL processes and principles are focused on service delivery, and can be applied more widely. Service Desk Management principles can apply as much to the circulation or reference desk as they can to the IT Help Desk. Capacity Management can relate to the number of staff and space a Library has to offer services to users; Availability Management translates to library opening hours, and offsite access to databases. Macquarie University Library has identified the

development of a service catalogue for IT services as a first step in the crossover between IT and Library services. The development of an IT Service Catalogue has identified agreed services that IT will offer to staff and students, and the secondary services that underpin and support each of these. A service catalogue for library services will define the services that the Library provides for the University and the community, and how those services link and are supported internally. For example, a reference service relies on the IT service being available, the technical services area providing descriptions and locations for information, the Corporate Services area ensuring that suitable contracts for electronic resources have been negotiated and paid, and the Staff Development area providing suitable training and development for staff who are offering the services. The basics of Service Desk Management, such as a knowledge database, apply in such a scenario, and the establishment of service level agreements with customers nominates an expected level of service, which can be measured and monitored.

Changing the culture of the organisation is critical to the implementation of Continuous Service Improvement processes. The challenge is to take a customer-centric approach to the provision of services and provide seamless, consistent and reliable service.   The Library is currently restructuring to move from a structure based on operational functions to a service focused organisation based on ITIL's service management framework.

3   CONCLUSIONS

Implementing an IT Service Management framework is not for the faint hearted – it requires a commitment from the entire organisation, time and money which will span several years, and leadership from all areas. Expanding this to include more than IT requires a complete change of focus and a different way of looking at service delivery – but in our opinion, a more realistic and supportable way of approaching service delivery. As the Library moves to embrace further changes in technology as well as the expectations of the next generation of students, the foundations built through our use of the IT Infrastructure Library framework should provide us with a solid base for expansion and the ability to offer seamless services across the university.

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