

ITIL at Deakin – The Journey so far.....

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Abstract

The Implementation of the ITIL Service Management Framework at Deakin University has been an interesting study on what should be done, what could be done, what actually gets done and the unexpected outcomes. From the moment ITIL was selected as the IT Service Management framework and we began our initial structured project approach, issues and opportunities presented themselves. Now more than three years through the journey we are able to provide a retrospective review of our experiences and a self-critical analysis of our approach, both good and not so good. During this period we have also had to accommodate high IT staff turnover, senior retirements and a departmental external review. It was to be a process of discovery which brought with it more risks and required total commitment.

This presentation outlines the approach taken, the results achieved along the way, advice to new and not so new players. It explores the issues of: Was the journey worth it? What would we do differently? Where to from here? Many organisations are struggling with the “how to implement” ITIL issue. We have been through it and have valuable lessons to pass on. Although organisations are different, the issues are the same, and we feel that our experiences can help others.

Deakin overview

Deakin has five campuses: two in Melbourne, two in Geelong and one in Warrnambool. In addition to traditional campus-based teaching at these locations, we are committed to also providing flexible learning options through innovative teaching and delivery methods. More than 12,000 of our 29,000 students study externally. There are approximately 2,500 international students studying our courses in Australia and throughout the world. Some 45,000 students from business and the professions are enrolled in customised courses through our private arm, DeakinPrime

About ITSD at Deakin

Since the inception of Deakin University in 1977, Information Technology Services Division (ITSD) has operated as a discrete organisational unit. Tasked with central responsibility for the information technology (IT) infrastructure of the University, ITSD has facilitated rapid deployment of network and associated services such as email, user account management, telephony, desktop environment, data storage and enterprise resource planning (ERP) systems. Over the last thirty years, ITSD has borne witness to the rapid progression of IT and has consistently set the benchmark in its early adoption of best practices or new technologies through its centralised approach to managing IT. This has allowed the division to become a recognised leader in the higher education sector.

ITSD is one of a number of administrative entities reporting to the Chief Operating Officer. Its major goal is to continuously develop and maintain the IT infrastructure in order to meet the teaching and learning, research and administrative needs of Deakin University. ITSD is responsible for the development and maintenance of the IT infrastructure of Deakin University, including the provision of IT support to all staff, students and appropriate third parties. In conjunction with the appropriate “custodial owner”, ITSD also facilitates the acquisition, deployment, maintenance and support of enterprise applications.

The division delivers support, services and productivity tools to 3500 staff on five campuses and provides the infrastructure and application hosting necessary to support the teaching and learning needs of our on- and off-campus students by:

- providing and supporting telephone, desktop and printer equipment for academic and administrative staff
- maintaining approximately 10,000 network-attached devices
- delivering over 200 applications and productivity tools to the desktop via the Phoenix standard operating environment (SOE)
- supporting and maintaining a further 50 corporate and web applications, providing for automation of many business functions within the University
- supporting and maintaining a suite of tools to facilitate teaching and learning such as DSO (incorporating Blackboard Vista, Elluminate Live, iLecture and audio streaming of lectures)
- providing and maintaining 1750 laboratory workstations, many of which are available 24 hours per day – an Australian first.

What is ITIL?

In the mid 1980's, the British Government's Central Computer & Telecommunications Agency (CCTA) recognised that although there had been considerable research into software development, resulting in a number of methodologies, not much in the way of the operational stage of IT service provision had been developed.

A project was established to discover what worked and what didn't by tapping into its own and other organisations' actual experiences. Although the CCTA was part of the public sector, it also looked to the private sector, and beyond the boundaries of the UK into Europe and America. The major outcome of this project was the publication of the Information Technology Infrastructure Library, or ITIL, which was a set of books that provided extensive guidance on what constitutes best practice in the delivery of IT services to meet the client requirements. ITIL is now a British and Australian standard.

A significant focus of ITIL is the IT Service Management (ITSM) component of the library which deals with the provision of services at the operational level. This is the part of ITIL that we have been implementing in ITSD at Deakin.

ITSM consists of two volumes:

- *Service support* which focuses on the day-to-day processes for the support of operational IT services and
- *Service delivery* which groups together the key processes that ensure cost-effective IT Service delivery that meet agreed client requirements.

Together they make a comprehensive Standard Framework for Service Management.

Service support

Service Support concentrates on the day-to-day processes:

- *Incident Management and Service Desk* which deals with the calls to the Service Desk (or incidents) and the manner in which they should be logged and managed;
- *Problem Management* which deals with incidents that cannot be dealt with by the Service Desk, or collections of incidents that represent an underlying problem
- *Change Management* which deals with the way in which changes are authorised, managed, and performed
- *Release Management* which deals with the actual releases of the changes and
- *Configuration Management* which deals with the management of the data required by the other service support processes.

Service delivery

Service Delivery concentrates on the planning processes:

- *Service Level Management* which is concerned with the management of the levels of service delivered and agreed to with the clients
- *Financial Management* which is concerned with the control of the costs of providing IT services
- *IT Service Continuity Management* which is concerned with reducing the risks to IT Services
- *Capacity Management* which is concerned with ensuring that the IT infrastructure is of adequate, but not excessive, capacity and
- *Availability Management* which is concerned with the activities carried out to ensure that IT services are available to customers when they are required.

The various Service Delivery and Service Support processes feed these IT services, which are in turn supported by the IT Infrastructure.

Why ITIL at Deakin

With the continued growth in size and complexity of IT at Deakin, ITIL was explored as a framework for promoting best practice services at Deakin University.

Initially Deakin engaged external ITIL professionals to assess the maturity of current processes and the formulation of an IT Service Management strategy.

A Service Improvement Program (SIP) was commenced with the appointment of a project manager, a “project by project” approach to implementing the ITIL framework, and a Steering Committee overseeing the activities.

Experiencing slower than expected progress, Deakin moved to an accelerated approach, aligning the organisation at the same time as implementing the SIP, with a Program Director (supported by an external ITIL professional) reporting directly to the Program Sponsor for all of the program activities. Deakin found the experience to be a process of discovery! It meant higher risk and additional resources, but results were achieved and the framework is now firmly embedded in our IT operation.

At the same time, because of the level of change being undertaken, the ITSD Senior Leadership Team (SLT – the Director and Group Managers) also started an initiative to encourage staff participation and growth. The objectives of the cultural change initiative (aka LEAP) were:

- to build within ITSD the capacity for continuous change and growth, to enable constant up-dating and learning so that it can become a top learning organisation, and anticipate and respond powerfully to change
- to boost the development of a team-based, mutually supportive and high communication culture to underpin the new teams that will be set up
- to support the planned ITIL realignment processes and achieve maximum effectiveness of the new arrangements through action learning projects
- to refresh the use of the LITF (Leading into the Future management program of the University) tools and concepts by the many ITSD staff who had experienced them, and to ensure the tools are more widely used in strategic development, problem-solving and relationship building
- to encourage personal goal-setting practices by all staff in pursuit of continuous growth and development for better service performance
- to break down the silos and existing structures of ITSD, to encourage mutual understanding and respect and seamless, flexible service at all levels and locations.

Timeline

<i>September, 2001</i>
<ul style="list-style-type: none"> • Held Service Review Conference to determine the services being provided by ITSD.
<i>October, 2001</i>
<ul style="list-style-type: none"> • Formed the Service Review Committee. • Determined that we needed to not only document our services, but also to document how they were delivered – we needed a framework.
<i>January, 2002</i>

<ul style="list-style-type: none"> Decided that the ITIL ITSM framework was the way forward.
<ul style="list-style-type: none"> Engaged ProActive Services to do a presentation of what ITIL was, what the benefits were and how they could help us.
March, 2002
<ul style="list-style-type: none"> Had ProActive perform an assessment of our maturity and effectiveness and compile a report.
<ul style="list-style-type: none"> Held a planning workshop to review the assessment report and determine the way forward.
<ul style="list-style-type: none"> Decided to train all staff to ITSM Foundation Certificate level
April, 2002
<ul style="list-style-type: none"> Started training staff in ITIL Service Management Essentials – 12 staff
May, 2002
<ul style="list-style-type: none"> Continued training – a further 24 staff
<ul style="list-style-type: none"> Proposed a project to implement ITIL based on assessment report
June, 2002
<ul style="list-style-type: none"> Redefined the Services Review Committee as the Service Improvement Working Party to move ITIL forward
<ul style="list-style-type: none"> Joined the IT Service Management Forum (itSMF)
July, 2002
<ul style="list-style-type: none"> Attended the itSMF conference – the theme was implementation issues
August, 2002
<ul style="list-style-type: none"> Held workshops to determine ITIL program, priorities and timeframes (determined Incident Management and Service Level Management to be the first two)
<ul style="list-style-type: none"> Sought to recruit an ITIL-trained Project Manager (some difficulties finding one)
<ul style="list-style-type: none"> Continued training – a further 48 or so staff
January, 2003
<ul style="list-style-type: none"> Engaged a full time project manager
<ul style="list-style-type: none"> Held workshops for Incident Management and Service Level Management to determine scopes, milestones and timeframes
<ul style="list-style-type: none"> Continued training – a further 24 or so staff
April, 2003
<ul style="list-style-type: none"> Proposals for Incident Management and Service Level Management projects completed and forwarded
<ul style="list-style-type: none"> Purchased the ITIL Service Support and Service Delivery books and CDs for use by staff

June, 2003
<ul style="list-style-type: none"> • Service Level Management project instigated (No dedicated staff)
November, 2003
<ul style="list-style-type: none"> • Engaged a business analyst and instigated Incident Management (No dedicated staff)
December, 2003
<ul style="list-style-type: none"> • Project manager left us and we reassessed the projects
<ul style="list-style-type: none"> • Service Level Management – we had Service Offerings described and had built a rudimentary Service Level Agreement for the entire University.
<ul style="list-style-type: none"> • Incident Management – we had determined the vision of what it was going to be.
<ul style="list-style-type: none"> • Received consultant report on ITSD structure
January, 2004
<ul style="list-style-type: none"> • Instigated the ITIL implementation as a full program.
<ul style="list-style-type: none"> • Developed a program brief, project charters and a process development methodology.
<ul style="list-style-type: none"> • Removed Client Services Manager from organisational structure and made them Program Director.
<ul style="list-style-type: none"> • Utilised ProActive consultant as Program Advisor
<ul style="list-style-type: none"> • Redirected business analyst to also perform project management for Incident Management, Problem Management and Service Desk.
<ul style="list-style-type: none"> • Reinstated Service Desk, Incident Management and Problem Management projects utilising ProActive's Base Plan methodology.
<ul style="list-style-type: none"> • Reinitiated Service Level Management project
February, 2004
<ul style="list-style-type: none"> • Engaged another business analyst/project manager for Change Management and Release Management projects.
<ul style="list-style-type: none"> • Instigated Change Management and Release Management projects utilising ProActive's Base Plan methodology.
<ul style="list-style-type: none"> • Instigated Organisational Realignment Project
<ul style="list-style-type: none"> • Instigated project to build ITIL support tool
March, 2004
<ul style="list-style-type: none"> • Engaged a technical writer to assist with procedure development.
<ul style="list-style-type: none"> • Began planning of implementation phases of processes
<ul style="list-style-type: none"> • Started filling positions in ITIL-aligned organisational structure
June, 2004
<ul style="list-style-type: none"> • New ITSD ITIL-aligned structure in place
<ul style="list-style-type: none"> • Final QA and walkthroughs of processes and procedures

<ul style="list-style-type: none"> • Final handover of processes and procedures to process managers/owners
<ul style="list-style-type: none"> • Project management role ended
<ul style="list-style-type: none"> • Group Managers made responsible for continuous improvement
January 2005
<ul style="list-style-type: none"> • Consultant review of ITSD approach
<ul style="list-style-type: none"> • Brought Service Desk totally in-house
<ul style="list-style-type: none"> • Commenced process to select and install ITIL-compliant tool (Project)
April 2005
<ul style="list-style-type: none"> • Selected HP OpenView as ITIL-compliant tool
May – September 2005
<ul style="list-style-type: none"> • Transferred Incident Management and Problem Management to tool (with some aspects of Service Level Management)
January 2006
<ul style="list-style-type: none"> • Appointed new Service Level Manager
March 2006
<ul style="list-style-type: none"> • Commenced implementation of Change and Release processes into HP OpenView
August 2006
<ul style="list-style-type: none"> • Created and filled Problem Coordinator role
November 2006
<ul style="list-style-type: none"> • Trained staff in new Change and Release procedures • Formally published Service Catalogue and University Service Level Agreements • Commenced planning for development of a formal Configuration Management Database
January 2007
<ul style="list-style-type: none"> • Reconstituted Change Advisory Board with the addition of non-ITSD members

Initial assessment (extract from report)

Most of the areas assessed were scored at a maturity level of 1 (prerequisite) or 1.5 (management intent). This is consistent with the management view that there are currently almost no defined processes. A notable exception was Financial Management, where processes are established.

It is important to note that the scores represent a snapshot of the situation in March 2002 and do not take into account the initiatives that are being undertaken to establish an IT Service Management framework and formalise processes so that they are repeatable, institutionalised and monitored for efficiency & effectiveness.

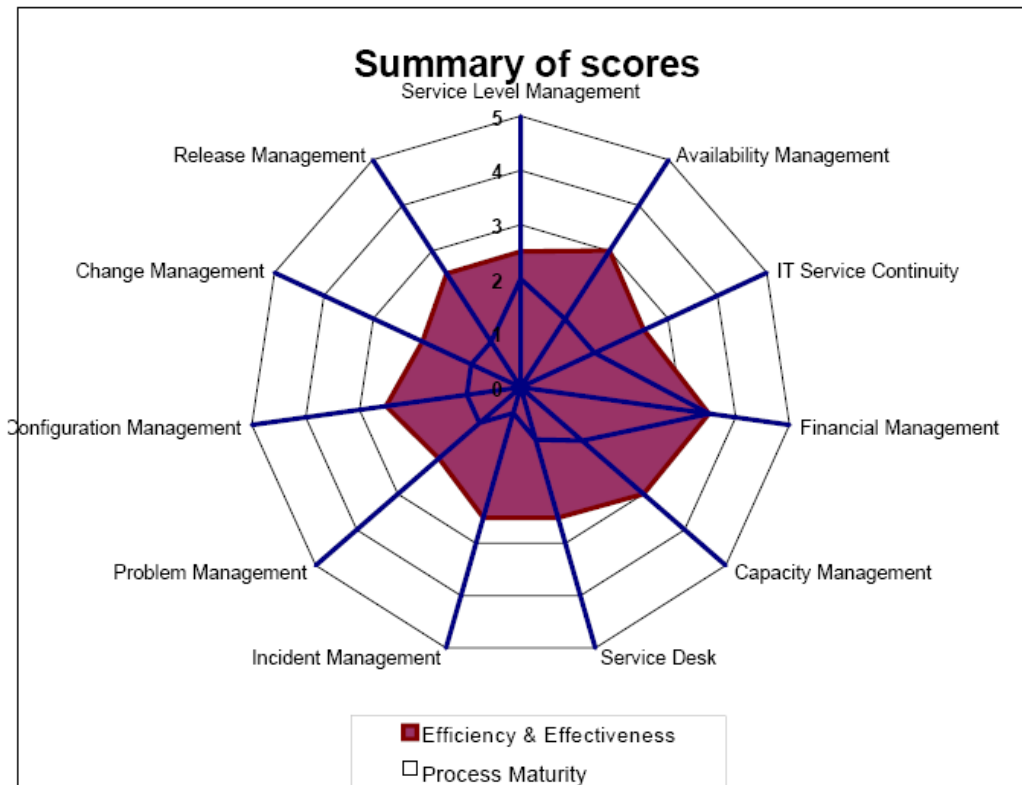


Figure 2: Assessment Scores for Each Area

Also worthy of note is that the scoring for efficiency and effectiveness is in most cases higher than the corresponding process maturity. This indicates that ITSD staff are achieving a degree of success despite the lack of process and points to the opportunity for significant improvement once structured processes are implemented.

Staff culture

IT Services as seen by the customer is the direct outcome of the cooperative effort of many groups of back office IT staff with responsibilities for various facets of IT. In other words, it is the product of many people from many groups. This is not dissimilar to the operation of an engine. The failure of one part will eventually lead to the failure of the whole.

So realistically it is extremely hard, but not impossible, to implement one element of the ITIL framework without recognising its impact on others.

We have spent close to three years promoting the benefits of the ITIL framework and this is backed up by the commitment for the training of all

ITSD staff in obtaining the Foundation Certificate in IT Service Management. To date more than 90% of over 140 staff within ITSD have successfully achieved this outcome despite a staff turnover in 2005 of 18%. By mid 2004 all members of the SLT had completed the ITIL Manager's course.

In summary the following factors greatly contributed towards the success of the accelerated approach taken:

- high level of awareness of the ITIL framework over a three year period
- high level of understanding of ITIL by all staff at all levels through the attainment of the Foundation Certificate in IT Service Management
- recognition by a great majority of ITSD staff that the time was right for ITSD to embrace the ITIL framework in order to improve the level of service.

The Program approach in the early stages allowed us to take a bird's eye view of the various elements of IT Services. It allowed the various elements of ITSM to be viewed externally from the Client perspective as opposed to it being viewed by IT staff from the IT perspective.

Some of the major benefits of ITIL were seen as:

- use of language, terminology and concepts that is easily understood by IT staff
- the ITSM framework provides an extremely valuable starting point for the review and discussion of any IT process and function within any IT organisation.

ITSD structural changes

ITSD decided in late 2003 to examine its organisational structure and to assess its effectiveness in supporting service improvement and other initiatives. ProActive Services was engaged to interview managers and supervisors and identify:

- the ITSM activities that each team performed
- any issues that were adversely affecting the rollout of effective processes.

A briefing paper was then circulated to the SLT and a workshop was held with the team to explore alternative structures that might create a more supportive environment for service improvement. The outcome of the workshop was a revised high-level ITSD structure that the SLT could use as the basis for organisational realignment. The revised structure was implemented in the middle of 2004.

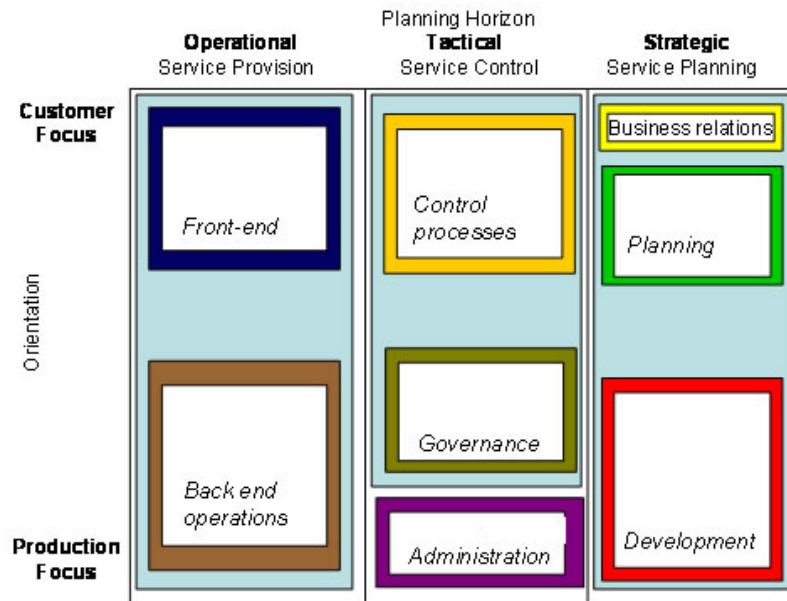
At the time of the 2003 realignment review, ITSD consisted of 3 groups:

- Administration
- Desktop and Network Services
- Information Systems

As a result of this review, ITSD was reorganised to clearly split accountability for Operations and Development activities and to establish a Service Control Group. The revised division now has 4 groups:

- Administration (unchanged)

- Operational Service Provision
- Service Control
- Service Planning and Development



This structure clearly separated development and operations responsibilities and also ensured that the **Service Provision** group has end-to-end responsibility for day-to-day IT service provision. Front-end operations were flagged as Incident Management while back-end operations were flagged as Problem Management. (This was later revised to Technical Services and additional focus introduced for problem management.)

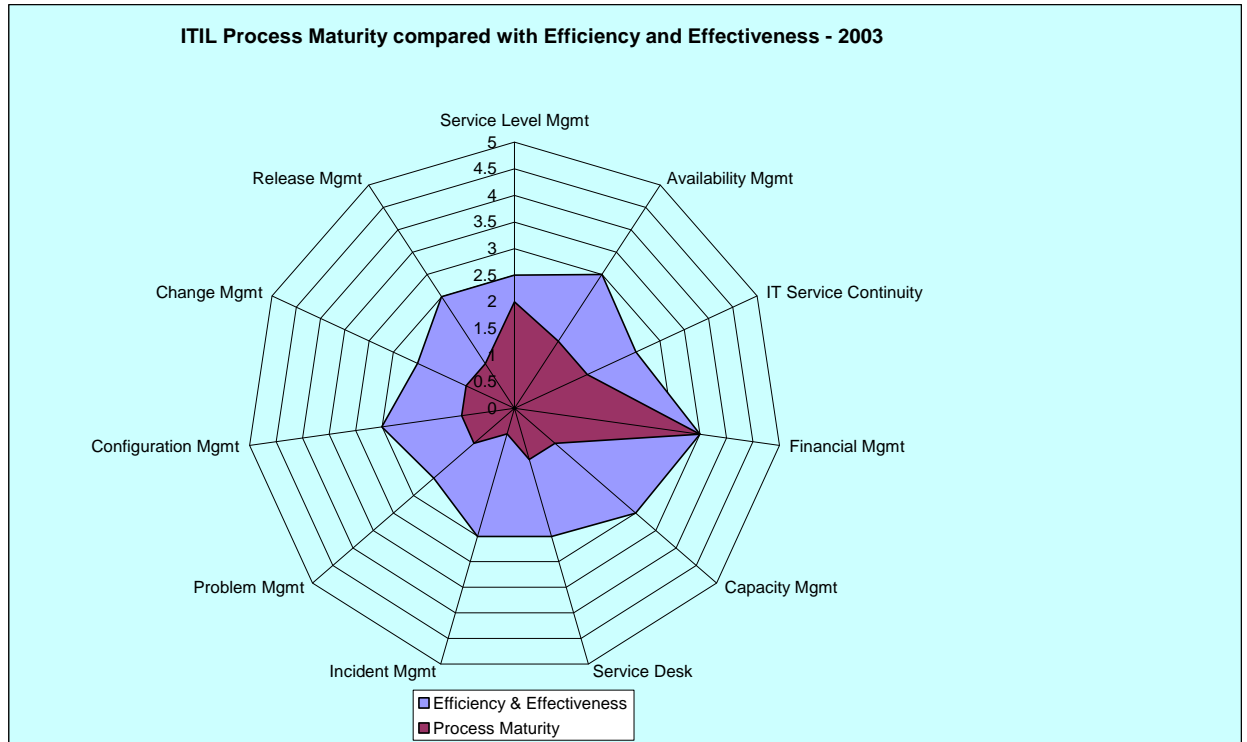
Ownership of the ITSM control processes of Configuration Management and Change Management, together with the closely related process of Release Management was vested in the **Service Control** group. This group acts as gatekeeper to the production environment, and also provides the IT governance capability. Although Service Level Management is a customer-focused process, it is grouped into the governance area for simplicity.

The **Service Development** group was given responsibility for planning (including IT Service Continuity Management, Capacity Management and Availability Management) and all development activity. At a six monthly review it was subsequently decided to move IT Service Continuity Management to the Service Control group.

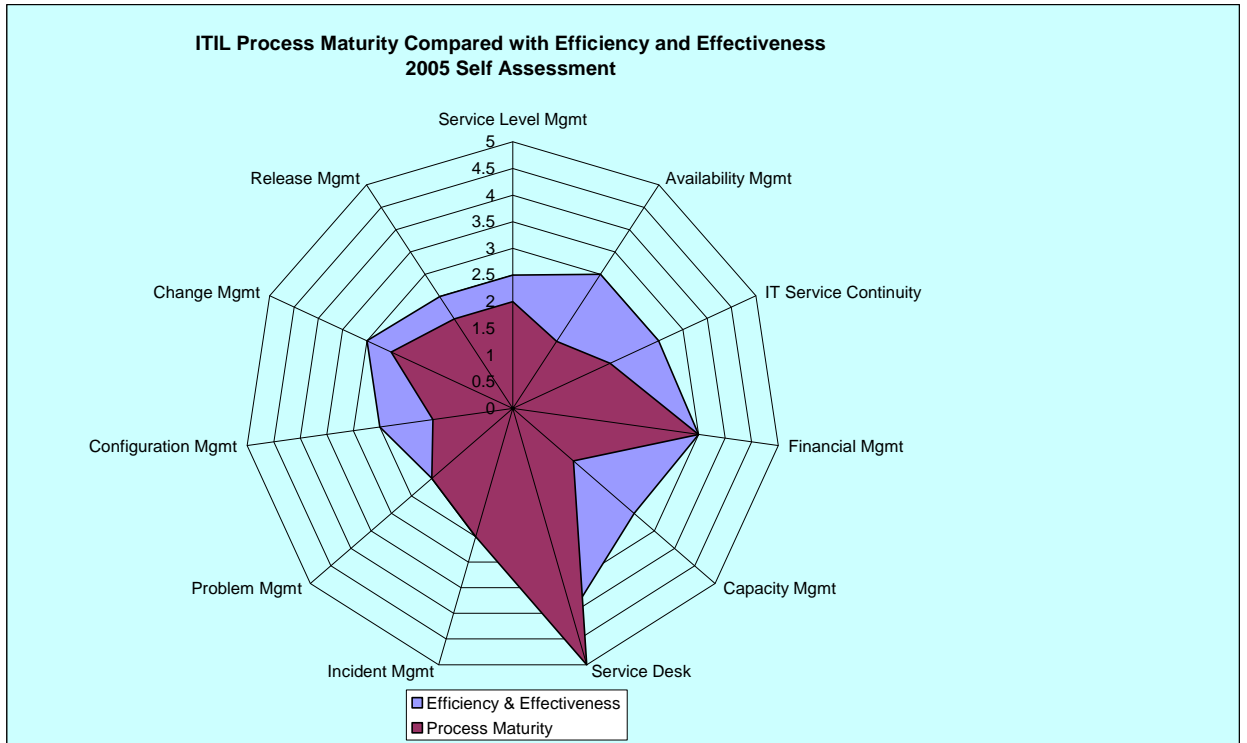
This structural organisation of ITSD focussed the staff on the importance of ITIL and created the impetus needed at the time for implementing ITIL. It focussed the thinking of the group managers, while identifying to staff our commitment to ITIL processes.

ITIL process maturity model

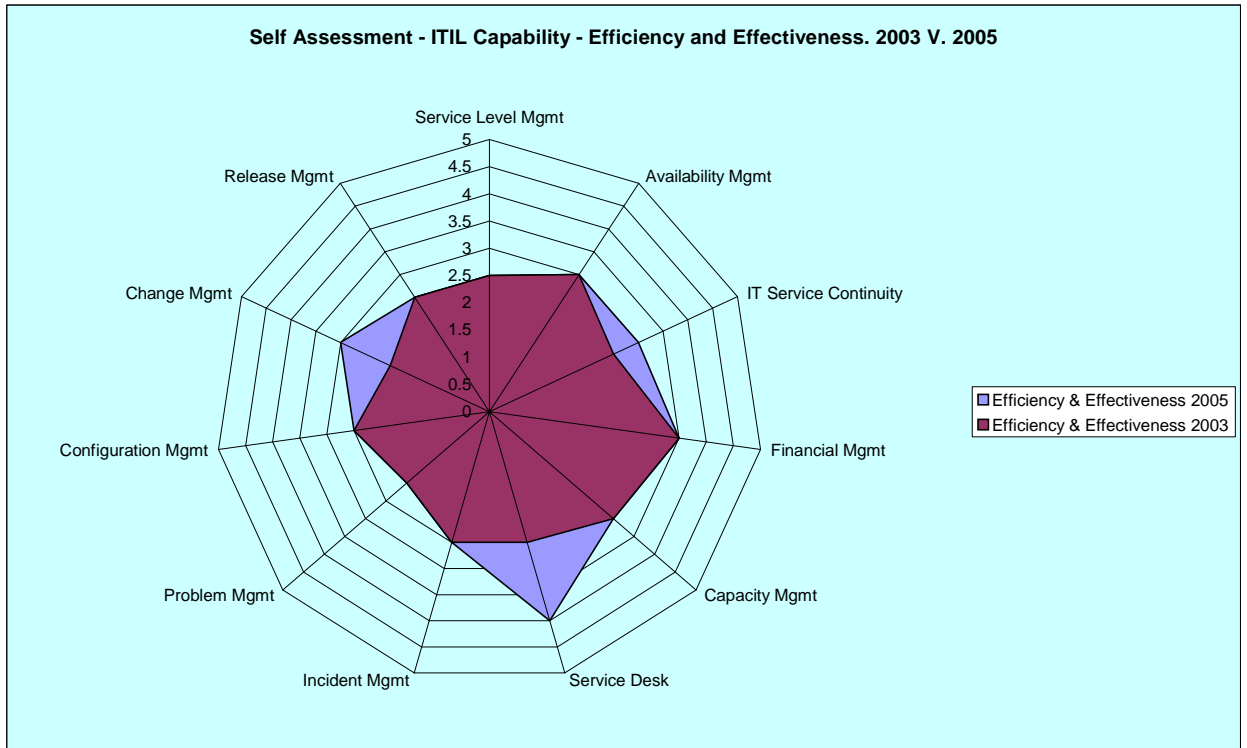
Progressively ITSD has undertaken self-assessments using the Office of Government Commerce (OGC) self-assessment tools and the following report provides a good status report of where ITSD is at. It is intended to undertake another consultant driven assessment in 2007 to confirm or otherwise this self-assessment.



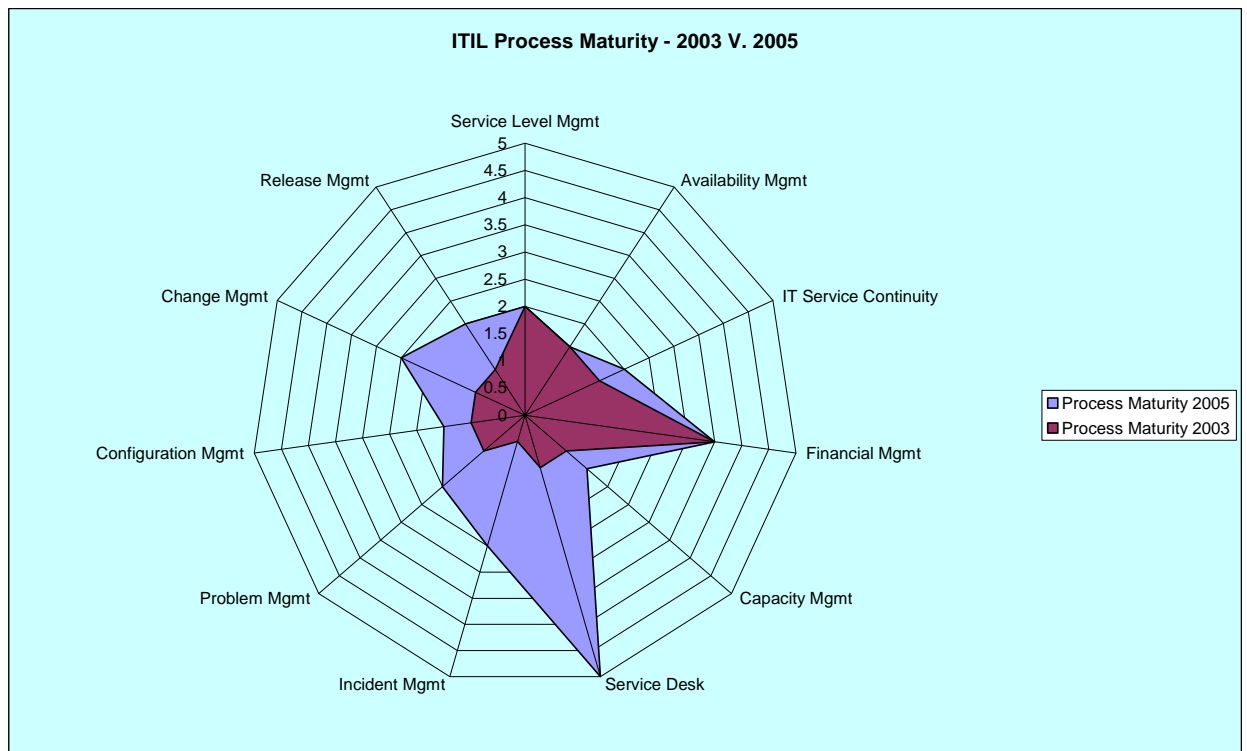
ITIL Process Maturity Model 2003 – Conducted by ProActive Services Pty Ltd. Indicates reasonable levels of IT service management process effectiveness, notwithstanding that ITIL processes were immature



ITIL Process Maturity Model 2005 – Self Assessment. Indicates that ITIL processes have matured significantly



ITIL Process Maturity Model – Efficiency and Effectiveness 2003 versus 2005



ITIL Process Maturity Model – Process Maturity 2003 versus 2005

Lessons learnt

What has gone right so far

- the decision to adopt the ITIL framework back in 2001. This was done at the time when ITIL was not well known and was a “brave” decision at the time.
- the running of the change culture initiative (LEAP) with the introduction of the ITIL framework to our staff. This helped to show staff the justification and the need to undertake both organisational and personal change. It also allowed staff to obtain mentoring where they may have been struggling with the level and complexity of the change being undertaken.
- commitment to training all staff in the foundation level of IT Service Management. This allowed the adoption of a common language and better understanding.
- the restructuring of ITSD to align more closely to the ITIL processes.
- delaying the introduction of an ITIL-compliant tool and commencing using our existing tools. This allowed us to understand the impact of ITIL processes on our environment and made for better decision-making when choosing a compliant tool.
- monitoring progress and making changes in our overall approach when difficulties arose.
- the maturing of the various ITIL processes at different rates. This allowed the separation and concentration on various components to be easily aligned to operational and other requirements of the organisation while not totally stopping the ITIL implementation and maturing.

- including responsibility for process improvement and ITIL maturity into the staff review process.
- the close working partnership with ProActive and use of their expertise at the appropriate times.

What went wrong

- staff using ITIL process as excuses for slow process. There was a period during the initial implementation of Incident, Change and Release Management where ITSD staff struggled with the discipline of formally capturing all activities and this resulted in user frustration and negative feedback.
- our communication to the University was not well targeted. This resulted in many in the University not understanding the reasons and benefits that could be achieved by the introduction of ITIL into ITSD. A number of the University senior executive saw it as just another excuse that ITSD could use to explain their perceived poor IT performance.
- delays in development and introduction of Service Level Agreements and related agreements in the Service Level Management area.

What has needed improvement

- our problem management processes. We did not clearly identify an approach or responsibility for the problem management area. Although we did initially identify a "Problem Manager", the brief was too broad and also included the overall supervision of our technical resources therefore focus was lost. To this end we have introduced the role of Problem Coordinator in the last four months to both fast track improvement and also review and recommend the way forward.

Challenges

- staff turnover and ITIL training.
- keeping up the commitment to the ITIL improvement impetus. The activity is never-ending and to keep staff focussed and aligned to the ITIL goals is very challenging.
- changes in the Director of ITSD and their management in the Senior Executive will see the future strategies adopted by ITSD alter. It is important that the ITIL framework remain a major focus for ITSD.
- communication, communication, communication

Where to from here

In 2007

- further improvements to Service Catalogue and Service Level Agreements
- introduction of internal ITSD Operational Level Agreements
- continued implementation of Change Management and Release Management
- implementation of Configuration Management
- review of Problem Management

- accelerated improvement of the Capacity, Availability and IT Service Continuity Management disciplines
- engaging consultants for a formal maturity assessment.

If we had the time over

Review, navel gazing and self criticism are wonderful activities. If done in a constructive manner they can be very informative and beneficial. By the time this paper is presented the following list may grow but for now the list is:

- more focus on problem management earlier
- better publicity and communication – more time spent and professional assistance
- faster implementation of the Service Level Management discipline
- more resources (like everyone) to speed up achieving maturity of process