

# Subscribing to the infrastructure library

IT Infrastructure Library  
(ITIL) is enabling better  
service delivery, enhancing  
governance

Dr Aileen Cater-Steel



**ORGANISATIONS ARE UNDER PRESSURE** to account for costs, and to manage risks associated with the ever increasing vulnerability of their IT infrastructure. This growing focus on IT governance has highlighted the importance of IT service management. Over the last few years, many organisations have adopted the IT infrastructure library (ITIL) to provide effective management and control of IT service delivery and support.

The ITIL best practice framework has become the standard to enable managers to document audit, and improve IT service management processes.

ITIL is administrated by the UK Office of Government Commerce and provides a comprehensive and cohesive set of templates and best practices for core IT operational processes. ITIL's best-practice processes are supported by Australian Standard AS 8018 ICT Service Management (released in July 2004) which is based on the British Standard BS 15000.

ITIL adoption is growing rapidly in Australia and has always had a strong following in Europe. As an indicator of popularity, it has been reported that EXIN International, the leading international certification organisation for ITIL training, has administered more than 170,000 training certificates to individuals around the globe (Computer Economics 2005).

As shown in Figure 1, the core of ITIL comprises six service support processes and five service delivery processes. Service support processes are used by the operational level of the organisation whereas the service delivery processes are tactical in nature. Within service support is the service desk function, which is designed to be the main contact point between the end user and the IT organisation. Other functions such as security management and applications management are also included in the framework.

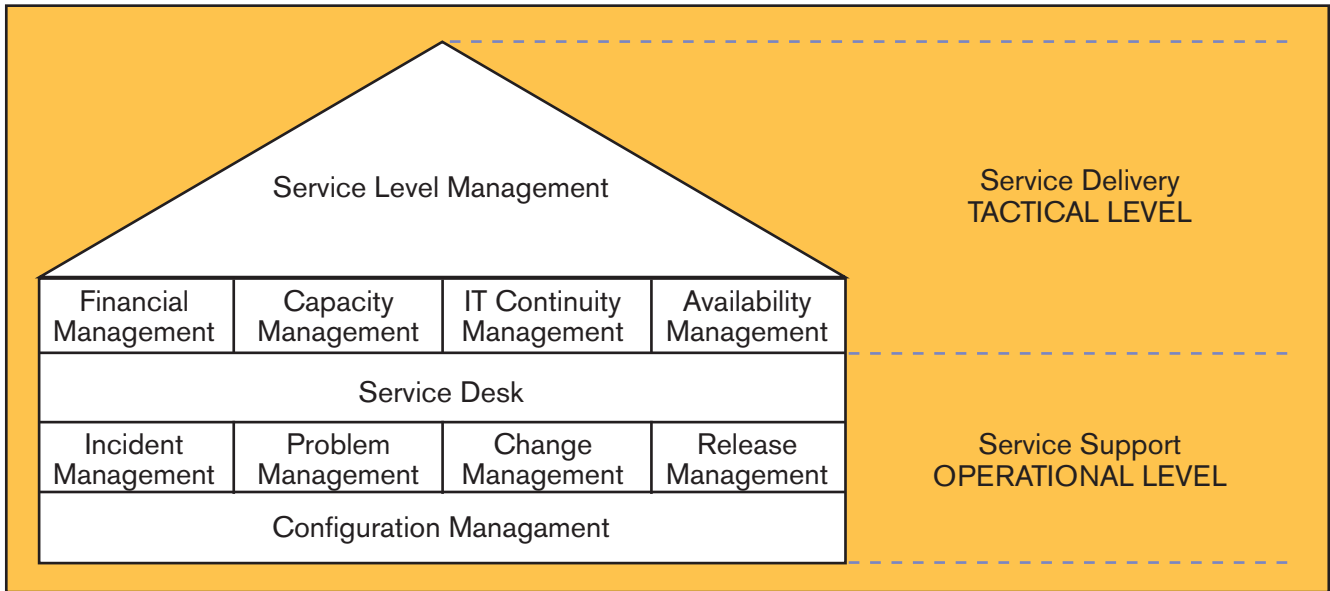


Figure 1: ITIL core service management functions and processes

ITIL has been used as the basis for a number of vendor offerings, including HP's IT Service Management Reference Model (ITSM), Microsoft's Operations Framework (MOF), and IBM's Systems Management Solution Lifecycle (SMSL).

### itSMF survey

With the cooperation of the itSMF conference committee, Dr Wui-Gee Tan and I conducted a survey at the National IT Service Management Forum (itSMF) in Brisbane last year. The aim of the survey was to gauge the extent of adoption and benefits of ITIL. The conference was very successful with in excess of 500 participants. In all, 110 survey responses were returned, representing all Australian states.

Two-thirds of the responses came from private sector organisations. There was wide variation in the size of the IT departments represented: 15 per cent of responses represented small IT departments of less than 50 IT staff while one third came from large organisations employing in excess of 300 IT staff.

### Survey results

Attendees were asked to indicate their implementation status in relation to a range of service management frameworks as well as other quality and project management frameworks. As shown in Table 1, the most popular initiative was ITIL with all respondents reporting

that they had either started (24 per cent of respondents), partially (58 per cent), largely (15 per cent) or fully (3 per cent) implemented the ITIL framework.

Quality management systems are still flavour-of-the-month with ISO 9001 relevant to one third of the respondents. The ICT governance framework CobiT (Control objectives for information and related Technologies) is gaining popularity with 20 organisations in the early stage of implementation. Although the SEI's CMMI (Capability Maturity Model Integrated) is directed at software engineering rather than service management, the survey results showed there is strong interest in its adoption.

The service support processes in ITIL are intended to help companies gain control of the incident lifecycle, from when an incident first develops until a system change or a new release permanently fixes it.

As shown in Figure 2, the most advanced service support processes are incident management and the service desk function.

Change management is also high on the agenda with 18 respondents claiming to have completed the implementation of that process.

Service delivery covers the processes required for the planning and delivery of quality IT services, and looks at the longer-term processes associated with improving the quality of IT services delivered.

As shown in Figure 3, implementation of service level management is the most advanced of the five ITIL service delivery

Framework	Number of survey responses	Status of implementation					Number of organisations implementing framework
		No plans	Starting	Partially	Largely	Fully	
ITIL	110	0	26	64	17	3	110
CobiT	91	63	20	7	1	0	28
CMM/CMMI	86	63	10	12	0	1	23
ISO 9001	94	59	4	10	5	16	35

Table 1. Implementation progress of ITIL, CobiT, CMMI and ISO 9001.

processes. Although most respondents intend to implement all the ITIL processes, nine per cent of respondents had no plans to implement the IT financial management process.

### Motivation to adopt ITIL

The question exploring the organisation's motivation to adopt ITIL allowed for multiple responses. As illustrated in Figure 4, the desire to improve the quality of service was overwhelming in its motivation, selected by 95 of the 110 respondents. Strong support was also found for cost savings, internal compliance (management/business) and external compliance (government/client).

### Critical success factors

It is widely recognised that management commitment and support is essential for any major process improvement initiative. Top management should take a leadership role and adopt a longer-range perspective of the benefits thus ensuring sufficient allocation of resources and overcoming organisational resistance.

Consistent with this view, the most important factors identified by the respondents were the commitment of senior management

(95 per cent agreement) and having a champion to promote the project (97 per cent agreement). The importance of factors related to IT staff also gained strong agreement: the ability of IT staff to adapt to change, and also the quality of IT staff and training for IT staff.

### Satisfaction

As the respondents were attending the itSMF conference, it was expected that most respondents would be positive about the effectiveness of ITIL. As shown in Figure 5, 46 per cent of respondents reported that ITIL had exceeded their expectations, and a further 10 per cent felt that ITIL had met their expectations. However, not everyone was satisfied — almost one third were disappointed with the effectiveness of ITIL.

The most surprising result was that despite the fact that 56 per cent of respondents felt that ITIL met or exceeded their expectations, it appears that satisfaction declines during the course of ITIL implementation. Organisations which had largely or fully implemented ITIL tended to be less enthusiastic compared to those in the early stages of ITIL implementation, as shown in Table 2.

In the 'honeymoon' stage of implementation, when senior

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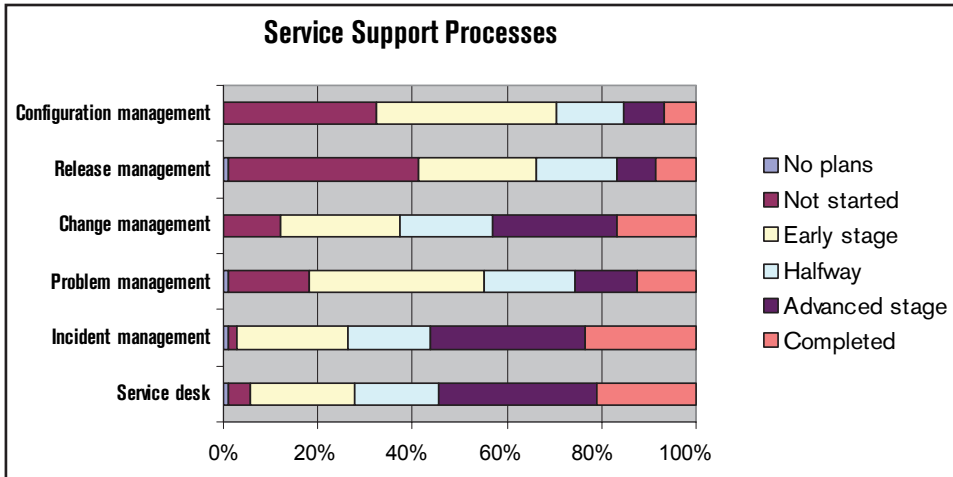


Figure 2: Service support processes – implementation progress

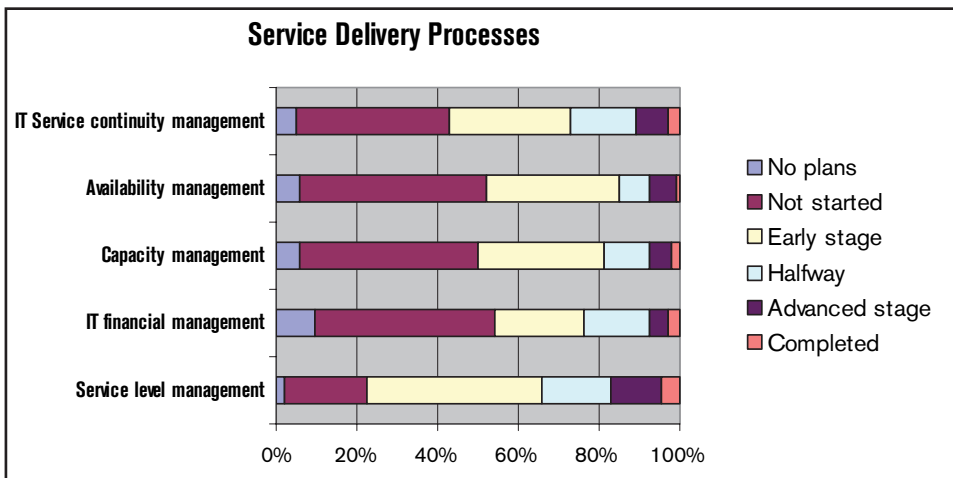


Figure 3: Service delivery processes – implementation progress

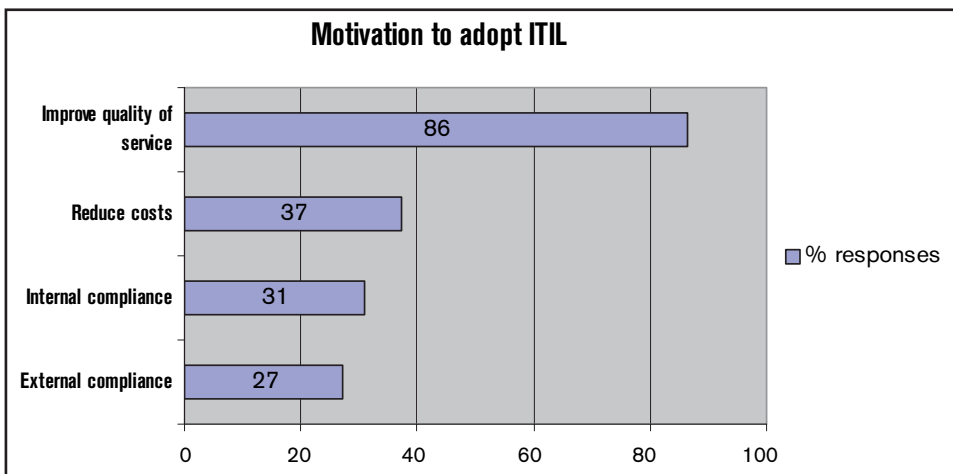


Figure 4: Sources of motivation to implement ITIL

management commitment is strong and IT staff are enthusiastic, it may be easier to achieve process improvement. However, implementation may become more difficult with time as the more complex processes challenge the project team and resistance from IT staff and clients is felt.

One of the greatest challenges for IT departments is establishing a centralised service desk. To reap the benefits of ITIL in terms of managing incidents, problems and configurations, it is advised to offer a single point of contact. However, in many organisations, responsibility for IT support is distributed throughout the organisation.

Organisations taking ICT governance seriously realise that comprehensive control of IT development, purchasing and service is best achieved by centralising control of IT.

A popular discussion topic at the conference concerned the initial resistance from clients and their local IT staff during the restructure of the organisation to bring IT staff under centralised control. However, the consensus from the survey indicated that the pain is worth the gain with strong agreement that ITIL has provided benefits such as clear identification of roles and responsibilities, a coordinated organisation-wide IT service, and improvements in customer satisfaction, IT service continuity, and systems and application availability.

### Multiple concurrent frameworks

The survey revealed that many organisations are in fact at various stages of adoption of multiple frameworks. Although there is much hype promoting the value of process frameworks such as ITIL, CobiT, CMMI and ISO 9001, the phenomenon of multiple concurrent adoptions appears to be totally neglected by researchers.

To explore the extent of concurrent adoption of frameworks, an analysis was conducted to determine how many organisations were implementing CobiT, CMMI and ISO 9001 concurrently with ITIL.

The result shown in Figure 6 indicates that 38 organisations are adopting one other framework along with ITIL (CobiT,

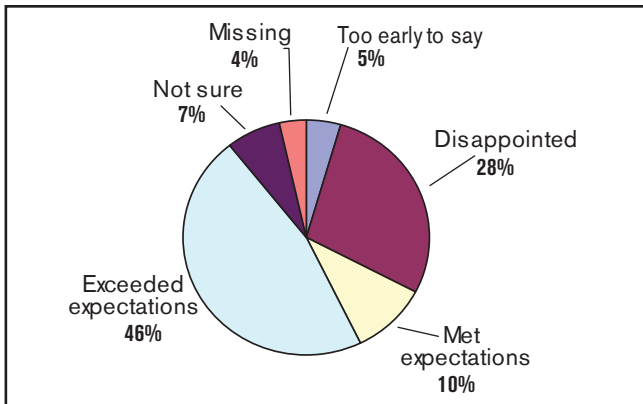


Figure 5: Satisfaction with ITIL

	ITIL implementation progress			Total
	Starting	Partially	Largely/fully	
Met Expectations				
Disappointed	4	21	6	31
Expectations met	0	4	7	11
Expectations exceeded	19	31	1	51
Total	23	56	14	93
Spearman's rho=-0.365**; p=0.000 (1-tailed), N=93				

Table 2: Satisfaction compared to ITIL implementation progress

13; CMMI, 6; ISO 9001, 19), 15 responded that they are adopting two other frameworks, and six are adopting all four of the frameworks discussed here. That is, over half of the respondents are implementing another framework with ITIL, and nearly one-fifth are implementing at least three of the frameworks being considered here.

Organisational change involving restructuring, defining and deploying new processes, and the installation of new tools and systems can place a significant burden on staff and result in increased stress, accompanied by loss of morale and productivity. Staff are

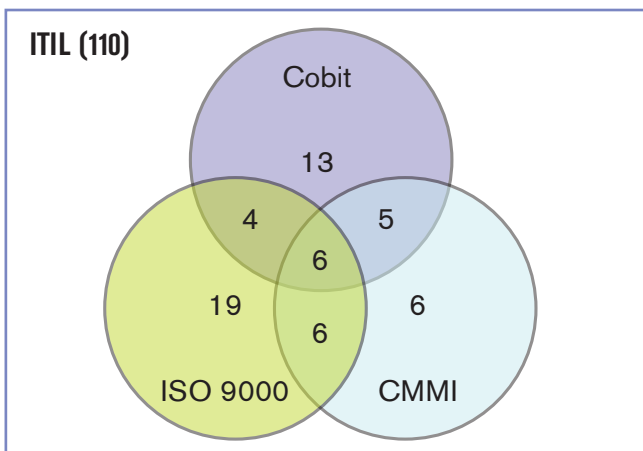


Figure 6. Number of organisations adopting Cobit, CMMI and ISO 9001. All organisations are in the process of implementing ITIL, or have completed ITIL implementation.

expected to “do the real work” as well as cope with the complexities of multiple framework implementations. IT managers understand that resistance to change can be reduced by effective change management, but identifying and involving all stakeholders in multiple implementations may present an operational challenge.

From a somewhat negative perspective, some will see implementation of these frameworks either as bureaucratic overkill or as certification hunting by individuals and organisations.

Another concern of IT managers relates to the optimal sequence of implementing the processes within each framework. This problem is exacerbated with multiple frameworks, in particular due to the interrelationships and process overlaps, for example, configuration management is included in CMMI as well as in ITIL.

It is vital that an overall plan is adopted rather than separate plans


for each process framework adoption. IT managers are currently concerned with system integration but also need to be aware of the complexity of integrating all the processes from multiple frameworks.

### Future research

The preliminary analysis of the survey has established a reference benchmark for the implementation progress of ITIL in Australian organisations. Together with colleague Associate Professor Mark Toleman, Tan and I have commenced interviews with IT managers to undertake an in-depth study of practitioners’ experiences with ITIL implementation.

I invite IT managers who are currently implementing ITIL to contact me if they would like to discuss being involved in the study. As well as providing new insights to improve the chance of ITIL implementation success, this research will better equip practitioners and consultants to understand issues related to IT service management and hence increase the potential for IT to sustain and extend the strategy and objectives of organisations.

### References

Computer Economics 2005, ITIL Adoption: 2006 could be a watershed year in US, viewed 25 Oct 2005, <<http://www.computereconomics.com/article.cfm?id1068>>. 

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