



ISO 20000-1: Common Misconceptions

Clarifying the common misconceptions between ITIL and ISO 20000-1.

1.0 Objective

The objective of this white paper is to identify and clarify two common misconceptions between **IT Infrastructure Library (ITIL)** and **ISO/IEC 20000-1** (henceforth called ISO 20000-1). Many believe that:

(1) **ITIL** and **ISO 20000-1** are two different options for implementing Information Technology Service Management (ITSM).

(2) and that **ISO/IEC 20000-1** is not meant for process excellence.

2.0 Background

The IT services community has been trying to embrace best practices from the ITIL since the 1980s. However, wide scale adoption of ITIL started in 2001 after the release of ITIL V2. In 2007, ITIL V3 was released. While ITIL was evolving as a best practices model, the International Standards Organization (ISO) was defining specifications for IT Service Management. ITIL was published in 2005 (fast track adoption of BS 15000:2002). Adoption of ISO 20000-1 has gained momentum since 2007~08. The main driver for ISO 20000-1 registration has been a prerequisite to qualify for government and other large contracts. IT services companies began to adopt ISO 20000-1 while in-house IT organizations continued to follow ITIL. At the same time, other organizations remain unsure whether to adopt ITIL or ISO 20000-1.

3.0 ITIL® or ISO 20000-1

Should an organization use ITIL or ISO 20000-1? Many organizations are now pondering this question. However, ITIL and ISO 20000-1 are not alternative options to implement ITSM; rather both are required for achieving excellence in ITSM. Figure 1 below shows the relationship and hierarchy of the documents.

An effective roadmap is the key element for success in ITSM. An organization can define its roadmap using ITIL as a guide. Before 2005, this was the only choice.

However, the major challenge in using ITIL as a guide is the volume of ITIL best practices. ITIL V3 is more than 500 pages distributed in five different books. This can be overwhelming for organizations that are new to ITSM. It is estimated that implementation of all the best practices of ITIL can take approximately 3~5 years. As you might imagine, it is difficult to maintain motivation over this long period of time. This requires a strong commitment on the part of the organization and well defined interim milestones to stay focused. It is also important to objectively demonstrate achievements. I have seen many organizations implementing ITIL over the past several years without an objective verification of their accomplishments. ISO 20000-1 is very helpful in such cases. It provides the requirements for IT service management in as few as 22 pages! ISO 20000-2 is used as a reference for the interpretation of the requirements. Many consider ISO 20000-1 as a simple “roadmap”

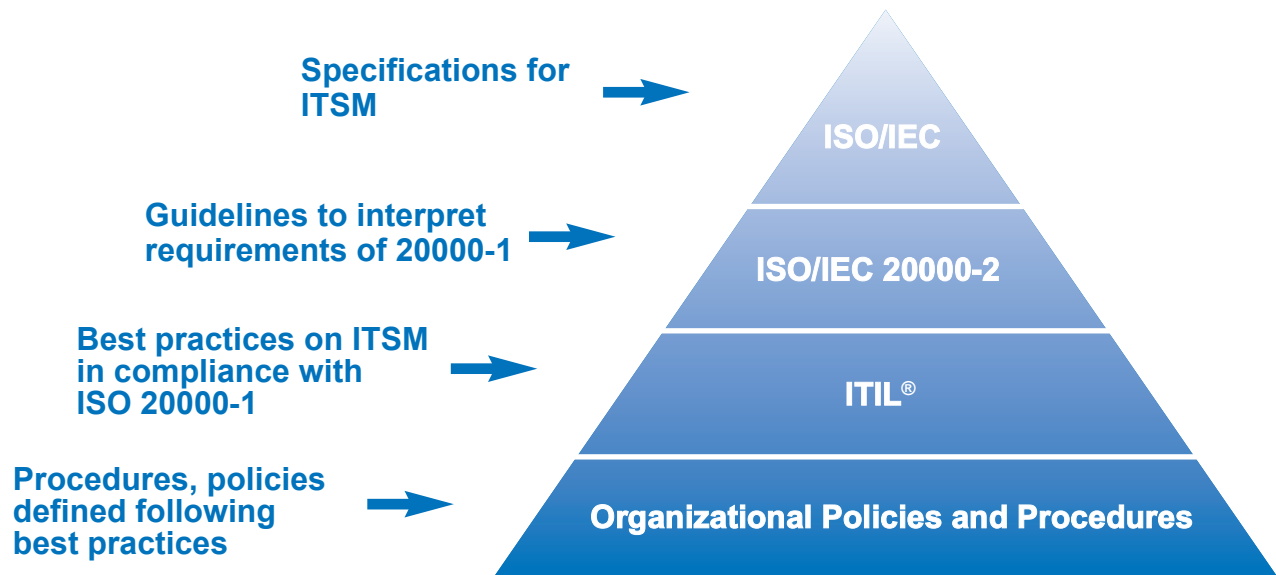


Fig: 1 Relationship Pyramid

for implementing ITSM processes. Organizations can establish a basic ITSM system in 1~2 years. ISO 20000-1 certification is a third party endorsement of this achievement. Minimally, surveillance audits are conducted annually by the registrar. This becomes a driving force to keep the system “up and running”. ISO 20000-1 and ISO 20000-2 provide “WHAT” is required. ITIL describes “HOW” those requirements can fulfilled.

Example, clause 3.1 (Management responsibility) of ISO 20000-1 requires senior management to define service management policy, objectives and plans. ISO 20000-2 explains the intent of this clause. The Service strategy book of ITIL explains key concepts for service management. It also provides key processes, key roles and responsibilities. Similarly, clause 5.0 on the planning and implementing of new or changed services, defines brief requirements for service design and transition. However, ITIL provides elaborate processes for these requirements in two different books, one on service design and the other on service transition.

Technically, it is possible to implement the requirements of ISO 20000-1 in an organization without referring to ITIL. However, if an organization wants to mature its ITSM processes, ITIL books are the best possible reference.

4.0 Process excellence and ISO/IEC 20000-1

There seems to be some misconceptions in regard to the ISO standards and registration system. Generally speaking, ISO standards are not perceived as a system for process excellence. Similar to any ISO standard, ISO 20000-1 provides a minimum set of requirements for ITSM. However the underlying principle of the standard is continuous improvement using the PDCA (Plan, Do, Check, Act) cycle. Figure 2 below explains the process maturity model in conjunction with the PDCA cycle.

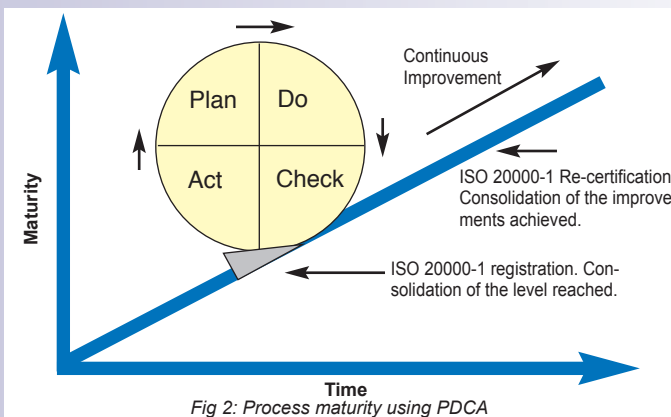


Fig 2: Process maturity using PDCA

Once the minimum requirements of ISO 20000-1 are met, registration is a mark of consolidation of the level reached. Once the organization has achieved this level of maturity, it needs to decide whether to move up the incline or to remain stationary in order to achieve its primary goals and objectives. Ideally, if the quality management system has been implemented in true spirit, the ball should move up naturally. If this does not occur, the corrective action mechanism should be able to detect root causes and eliminate those.

The continuous auditing system of ISO should be used as interim milestones to check the organization’s progress against its goals and be re-aligned as needed. This combination of internal and external drivers makes this system an excellent vehicle for achieving process excellence. However, if an organization lacks commitment towards process improvement, it will remain stationary by meeting the minimum requirements. They will continue to maintain ISO 20000-1 certification without achieving process excellence. In this case, surveillance audits will look to confirm that the minimum requirements are met, or if performance has slipped. (i.e. whether the ball has rolled backwards.)

5.0 Measuring process maturity through audits

Figure 3 shows a conceptual view of expected maturity of management systems.

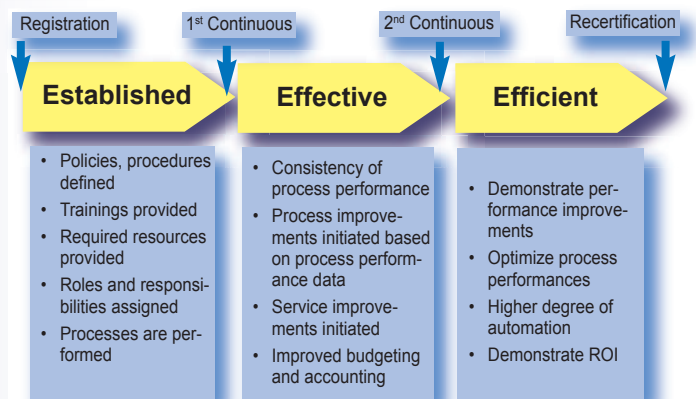


Fig. 3: Expected maturity of management systems

For example, let us assume an organization is establishing an ITSM following ISO 20000-1. Once all required procedures are defined, roles and responsibilities are assigned and processes are being performed for a reasonable period, the organization is ready for initial registration. This stage is considered “**Established.**” Characteristics of each level are defined inside the boxes. The essential theme of this stage is to establish the minimum requirements

(e.g. ISO 20000-1). Inconsistencies of implementation and wide scale variance in performance are expected outcomes of this stage. It is unlikely for an organization to see any tangible benefits from the system at this stage.

As processes are performed with steadfast commitment, the system will begin to stabilize. The performances of key processes are more predictable. The service improvement initiative will begin to show signs of effectiveness. These represent an indication of a system being **“Effective.”** Having consolidated benefits at this level, organizations should target higher improvement goals.

As an organization reaches the “Effective” stage, its focus should shift toward process optimization and innovation. Higher degrees of process automation are expected at this stage, defined as **“Efficient.”** Please note that the transition to “Effective” and “Efficient” stages will not occur by simply performing the same processes well. Rather, the organization’s processes must be continuously improved. References to ITIL processes at this stage will be very helpful.

For example, Clause 3.1 of the ISO 20000-1 standard describing management responsibility to define ISMS policies, objectives and measuring performance in relation to the objectives characterizes an organization in the “Established” stage. As an organization moves toward the “Effective” stage, it should begin to focus this process on the measurement of critical success factors, service oriented accounting, etc. As the organization reaches the “Efficient” stage, service management should be treated as a strategic asset. In this stage, the focus of measurement should include measuring “service value.”

Figure 4 below describes how the focus on measurement changes with process maturity.

These metrics are shown as an example. The measurement need of every organization is different. It must be aligned with any existing management initiatives (e.g. Balance Score Card). The organization should establish

its targets of performance improvement. During continuous assessment, external auditors can objectively verify target achievements and provide feedback.

I have seen an excellent example of this concept using a simple score card (figure 5). The organization defined Key Performance Indicators (KPI) for the 21 categories listed in the score card. The identified KPIs were aligned with the overall IT strategy of the organization. Target performance levels were defined for each KPI. During continuous assessments, auditors verified compliance to the ISO 20000-1 and also verified achievement of KPI targets. The overall performance score for each category was calculated considering process compliance and target achievements. Performance scores were compared with scores from previous audits. You can see from figure 5 that the 2009 scores were lower than 2008. However, the organization retained its ISO 20000-1 certification. That means the organization was able to demonstrate process compliance in those areas but not able to meet improvement targets. Areas of concern were identified (indicated by the red circles) and appropriate corrective actions were initiated. The performance score of 2010 showed improvements in all areas. The completed score card from 2008 to 2010 showed how process performance varied in each category.

In this instance, the organization used a score card with process categories mapped directly to the sections of ISO 20000-1 standard. However, organizations can define their own process categories in the score card.

6.0 Conclusion

The ISO 20000-1 registration process is a vehicle for process improvement. The example in section 5.0 showed how this can be used effectively to achieve ITSM process excellence. However, if the organization wants to use this only for meeting minimum contractual requirements, it will not achieve process excellence. It would be unfair to blame the ISO system for not delivering excellence. Examples in section 2.0 also established that ISO 20000-1 and ITIL are not competing standards; rather, complement one another. It should be understood that the onus of process improvement lies solely on the organization. Registrars and the auditing team can only facilitate the process.

Historically, the United States has been slow to adopt international standards, however, with the growth and demand of a global economy, many organizations now realize the benefits of early adoption. There is a sense of urgency for ITSM professionals to pursue certification.

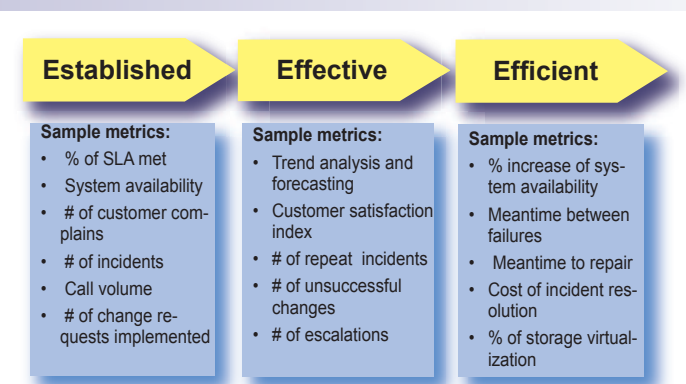


Fig 4: Sample Metrics at Different Stages

Req-ID	Section	2008		2009		2010	
		Score	Out Of	Score	Out Of	Score	Out Of
3.1	Management Responsibility	6	10	6	10	7	10
3.2	Documentation Requirements	10	15	11	15	12	15
3.3	Competency, Awareness & Training	6	10	6	10	7	10
4.1	Plan SM	8	12	7	12	8	12
4.2	Implement SM	6	10	5	10	8	10
4.3	Monitor, measure & reviewing	7	10	5	10	7	10
4.4	Continual Improvement	11	15	8	15	13	15
5	Planning & implementing new or changed services	11	15	9	15	12	15
6.1	Service level management	3	6	3	6	5	6
6.2	Service reporting	7	10	6	10	8	10
6.3	Service continuity & availability management	6	8	7	8	7	8
6.4	Budgeting and accounting	3	6	5	6	6	6
6.5	Capacity management	5	8	3	8	6	8
6.6	Information security management	4	7	3	7	5	7
7.2	Business relationship management	4	7	5	7	5	7
7.3	Supplier management	8	10	7	10	9	10
8.2	Incident management	4	6	4	6	5	6
8.3	Problem management	4	7	6	7	6	7
9.1	Configuration management	7	11	6	11	9	11
9.2	Change management	6	9	6	9	8	9
10.1	Release management	5	8	4	8	7	8
		131	200	122	200	160	200
Percentage Score		65.50		61.00		80.00	
Improvement				-4.50		19.00	

Fig 5: Scorecard

7.0 References

ISO/IEC 20000-1: 2005 Information Technology Service Management Specification

ISO/IEC 20000-2: 2005 Information Technology Service Management Code of Practice

ITIL V3: Service Design

ITIL V3: Service Transition

Disclaimer

UL DQS Inc. has applied its best endeavors in the preparation of this paper which it freely distributes to inform the public but accepts no liability arising from its use or application by any other parties, howsoever arising. Errors may have arisen in the transposition of text from reference sources and the analysis, whilst undertaken diligently and in good faith, may contain oversights or omissions, and in any event is subjective and performed in a general context, without regard to the needs of any

specific entity or party. Those who choose to act upon any statements or claims presented in this paper do so entirely at their own risk.

UL DQS Inc. states a disclaimer so that companies can perform their own risk analysis and work out suitable risk treatment plans.



About the author: Subrata Guha is the Director of IT Services, at UL DQS Inc. He is a lead auditor of ISO 20000-1 and ISO 27001. Before joining UL DQS, he spent 22 years in large IT services organizations. He has hands on experience on the full lifecycle of IT services management processes. He was a visiting scholar to Carnegie Mellon University. He has published multiple technical reports on quality system standards and models.