

Benchmarking provision of IT services

by Jenny Dugmore, Convenor of the working group responsible for ISO/IEC 20000

In the 1980s the IT industry began to realize just how important a high standard of management was for operational services. Work on developing best practice service management processes started then and continues to this day. ISO/IEC 20000¹⁾, the first international service management standard, originates in work started by the British Standards Institution (BSI), ISO member for the United Kingdom, in 1989.

ISO/IEC 20000 is divided into two parts: part 1 is a specification for use in audits and part 2 gives guidance on the requirements. As a technical management system standard, it covers management responsibilities, continual improvements, new or changed services and 13 service management processes. Service management is commonly dependent on complex supply chains spanning many countries and benefits from common standards.

The service management processes, shown in **Figure 1**, apply to a wide range of technology enabled operational services. The relevance to operational services means that the benefits of achieving the best practices are linked to the majority of the total lifetime costs of IT systems, often referred to as 'true cost of ownership'.

Tallying the tangible benefits

Research on the true cost of IT systems refers to figures as high as '80% of IT spend' attributed to ongoing support services. As these are services controlled by service management processes, improvements in the efficiency of service management can deliver a large reduction in the IT costs of an organization. Wide-

spread adoption of the same best practices will also improve gross domestic product of a country. In addition, best practices improve customer satisfaction with services. This is a less tangible but equally important benefit of achieving the best practices defined in the standard.

self-assessment workbook and a managers' guide to service management. The managers' guide also serves as a management introduction to ITIL®. Both publications have been converted to reflect ISO/IEC 20000 by the British Standards Association (BSI).

Early adopters' scheme provides valuable feedback

When BS 15000 was first published, the BSI committee also launched an early adopters' scheme in which the committee worked with service providers to test the benefits and drawbacks of the BS 15000 series. The early adopters represented a wide range of orga-

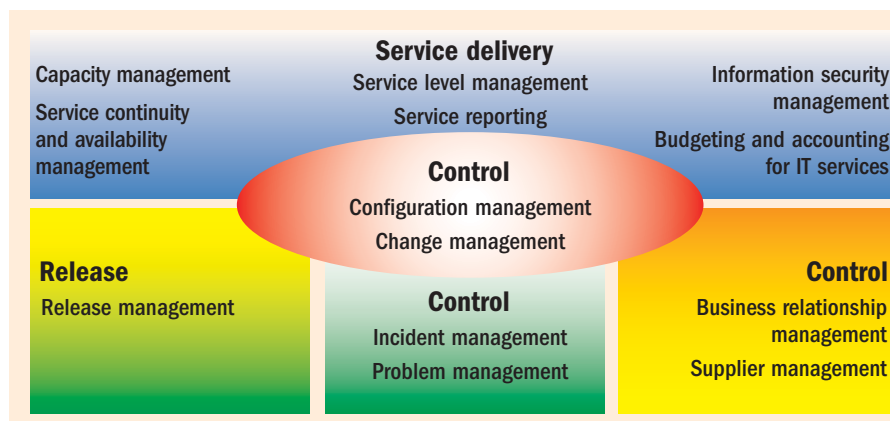


Figure 1 - The service management processes.

ISO/IEC 20000 is based on BS 15000, which was superseded in December 2005 following the international fast-tracking process. BS 15000 was in turn based on work started in 1989 and a code of practice first published in 1995, with a second edition in 1998. The second edition covered more processes, and reflected the evolution of best practices, including those covered by the British Government's advice known as the IT Infrastructure Library (ITIL®²⁾).

As the result of demand for independent quality assessments and certification audits, from both service providers and customers dependent on technology enabled services, a specification standard was published in 2000. For the first time the standard was numbered BS 15000. By this stage supporting publications also included a

nizational sizes and types, including public and private sector, commercial and in-house service providers.

The early adopters provided valuable feedback, leading to a second edition of BS 15000, published in 2002/3. This included new clauses covering the 'Plan-Do-Check-Act' cycle and other closely related management responsibilities. The clauses covering the 13 service management processes remained largely unchanged. The only significant change was removal of the requirements on charging for services, as charging is not appropriate for all service providers. This left requirements for the budgeting and accounting largely unchanged, as they are applicable to all organizations.

The early adopters had recommended that BS 15000 should be separate from, but aligned to, other man-

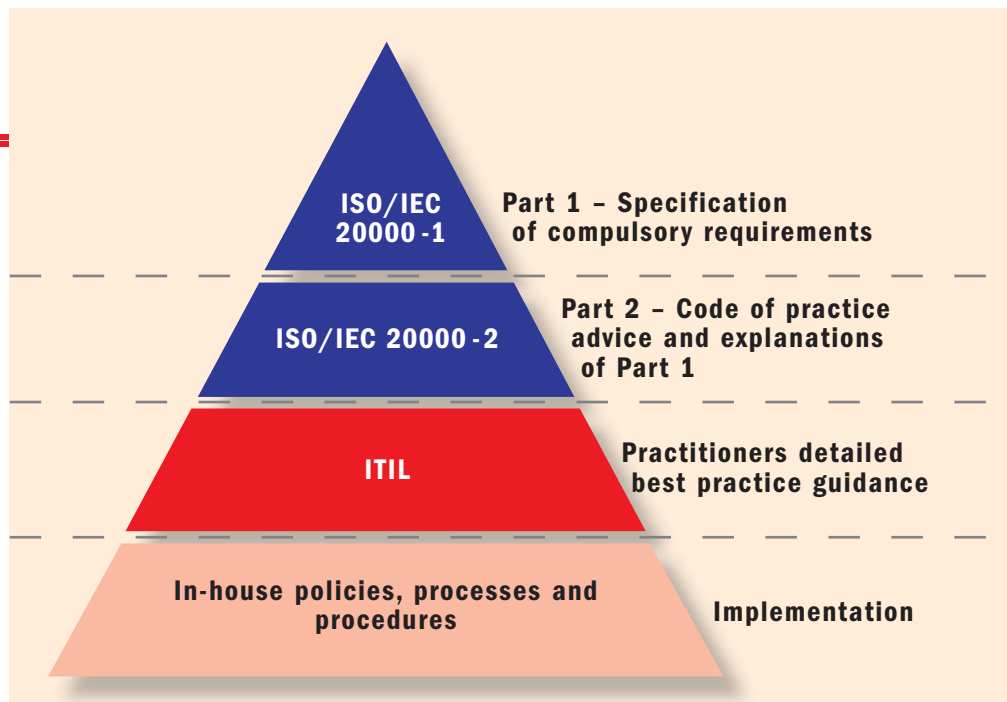


Figure 2 – Relationship between ISO/IEC 20000 and ITIL.

The relationship between the two sets of documents is illustrated in **Figure 2**. Each document serves a different purpose and each complements the other. Viewed top-down, the specification provides the quality goals that a service provider should achieve. This is supported by the advice and explanations provided in the code of practice. In turn, ITIL® advice and guidance provides practical examples and options that can be tailored by each organization. Although adoption of ITIL advice is not a requirement of

the standard, many people in the service management industry view ISO/IEC 20000 as ‘the standard for assessing ITIL implementations.’

An internal quality goal

With the second edition of the standard, interest accelerated outside the United Kingdom. This was also supported by the rapid growth in use of ITIL advice outside the United Kingdom, by both public and private sector service providers. Another factor for increased interest was the start-up of schemes for certification audits, such as the scheme managed by itSMF³.

The standard has been used in procurement of services. A notable example is the UK’s National Health Scheme ‘Connecting for Health’. The NHS is the third largest supplier in the world, second only to NASA in the amount of IT used, and the standard has been used in what is now the largest IT programme in

1) ISO/IEC 20000:2005 is issued in two parts under the general title, Information technology - Service management.

2) ITIL® (IT infrastructure library) is a registered trade mark of OGC (the Office of Government Commerce), Rosebery Court, St. Andrew’s Business Park, Norwich, Norfolk, NR7 0HS.

3) itSMF (Information Technology Service Management Forum), an ITIL® user group that is a not-for-profit membership organization with national chapters in many countries. This members organization consists of national chapters and itSMF International.

agement system standards such as the ISO 9000 series, whilst retaining the detailed requirements for best practice service management. Alignment with management system standards was also compatible with growing industry recognition that management involvement and continual service and process improvements is fundamental to best practice service processes. It was also compatible with achieving BS 15000 requirements for effectiveness and cost-efficiency and not the addition of a bureaucratic overhead, i.e. best practices are about ‘doing, not documenting’.

Alignment brings benefits

Between the first and second edition of the original code of practice, the code of practice and ITIL® were aligned. The alignment continues with ISO/IEC 20000, bringing benefits to both. The current ITIL® developments are also influenced by recognition that alignment with the standard is beneficial for ITIL, the standard and the service management industry.

Web page references:

International Organization for Standardization (ISO): www.iso.org

British Standards Institution (supporting publications as hardcopy): www.BSI-GLOBAL.com

BSI e-book store (supporting publications as e-books): www.eshop.bsi-global.com

IT Infrastructure Library (ITIL): www.itil.co.uk

Office of Government Commerce (OGC): www.ogc.gov.uk

IT Service Management Forum (itSMF): www.itSMF.com

Europe. Compliance with the standard is a requirement placed on suppliers.

A wide range of service providers have adopted the standard as an internal quality goal, for example, using the standard to assist with consolidating services following mergers or acquisitions and also for unifying the processes adopted by each location, in many cases crossing national boundaries.

Service providers that have achieved formal certification against BS 15000 (and recently ISO/IEC 20000) include the public sector in the UK, but also outside the UK, for example the State Revenue Office, Victoria (Australia).

Many of the certificated service providers are large commercial organizations. Some of the better-known organizations include Accenture, Affiliated Computer Services (ACS), AXA, British Telecom, Computer Sciences Corporation (CSC), Electronic Data Systems (EDS), General Electric (GE), Hewlett Packard, Hitachi Electronics, IBM, NEC, Samsung, Siemens Business Services, TNT and Wipro Technologies.

About the author



Dr. Dugmore is Director of Service Matters, a service management consultancy company. Her career spans operational senior management, service

management and consultancy.

Dr. Dugmore chairs the BSI committee that produced BS 15000, on which ISO/IEC 20000 was based. She was the Project Editor for the drafting of ISO/IEC 20000, and is now Convener of the working group responsible for ISO/IEC 20000.

Dr. Dugmore is on the itSMF's ISO/IEC 20000 Certification Management Board and on the UK Government's ITIL Refresh Management Board.

In 2005 itSMF awarded her the Paul Rappaport Lifetime Achievement Award for her contribution to service management.

Successful service providers are scattered around the world, including in Australia, Austria, China (including Hong Kong, China), Germany, Hungary, India, Japan, The Netherlands, Republic of Korea, Singapore, Spain, Switzerland, Thailand, the USA, as well as the United Kingdom.

“Improvements in the efficiency of service management can deliver a large reduction in the IT costs of an organization.”

Achieving BS 15000, and now ISO/IEC 20000, has been supported by the availability of courses of the interpretation and use of the standard, for auditors, consultants, managers and practitioners.

Reflecting international best practices

Because of the international interest in BS 15000, it became clear that a national standard was being widely used internationally. This triggered the decision to submit BS 15000 to the fast-track process, which took less than 14 months from submission to publication of ISO/IEC 20000.

Although 450 changes were made to BS 15000, for most organizations conversion to ISO/IEC 20000 was not a major problem because few of the requirements had been fundamentally changed. Changes also reflected best practices that service providers aspiring to certification should have adopted already.

Many of the changes made during the drafting of ISO/IEC 20000 were clause re-numbering and standardization of terms such as ‘service provider’. Extra sub-clause headings, shorter paragraphs, use of notes and alpha bullets were inserted to simplify cross-referencing. For those that had relied on BS 15000 for training, consulting, service improvement planning, certification schemes, auditing, or tool design, the changes had to be made to their material.

To make the conversion as simple as possible, BSI has published BIP 0039, *The Differences between BS 15000 and ISO/IEC 20000*, based on the log of changes kept during the drafting of the standard to help with this conversion process. This publication is the tenth publication in ‘Achieving ISO/IEC 20000’ series, converted from the BS 15000 versions on withdrawal of BS 15000 and publication of ISO/IEC 20000. Each publication explains different aspects of the requirements and recommendations of the standard.

Requirements: There are 16 changes to requirements (or removal of a requirement by conversion to a NOTE). An example is the role of a ‘senior responsible owner’ having become a part 1 requirement, not a part 2 recommendation.

Definitions: ISO/IEC 20000 now includes a 15th term: ‘service provider’ – the organization aiming to achieve ISO/IEC 20000. The policy for both BS 15000 and the first edition of ISO/IEC 20000 was to use terms as defined in an English language dictionary, rather than special terms.

Additional improvements underway

The standard is now managed by ISO/IEC JTC1 subcommittee SC 7, *Software and system engineering*, and falls in the scope of newly established working group 25. Additional improvements identified during the fast tracking process have been used as the basis for a new work item proposal. The results of the vote on this had not been published at the time this article was written, but if the proposals are acceptable they will include the following.

Scope and applicability

Options include advice on scoping for service management planning and improvements and scope statements for certification audits. Suggestions on applicability of the standard

include formally extending the scope to include communications (i.e. ICT instead of IT) or the even wider ‘technology enabled services’.

Detail and style

Improvements to the detail and style of both parts 1 and 2 are planned. The bulk of the improvements suggested were on code of practice, so part 2 is expected to be given priority. Improvements include:

- consistency in the level of detail in part 2, relative to part 1;
- recommendations on the code of practice that reflect the interests of an international audience;
- style of advice written so that it is suitable for more junior management and practitioners; and
- more advice on service management planning and process integration.

Harmonization

ISO/IEC 20000 is to be harmonized with other International Standards and the work of subcommittee SC 7, *Software and system engineering*, of ISO/IEC JTC 1, whilst retaining the benefits of alignment between ISO/IEC 20000 and ITIL.

As the objectives for each process in ISO/IEC 20000 do not align to other SC 7 process-based standards, it has been suggested that ISO/IEC 20000 should conform to ISO/IEC 15504-2, *Requirements for process reference models*. ■

“A wide range of service providers have adopted the standard as an internal quality goal.”

Looking ahead A glimpse into microbeam analysis

*by Prof. Rongshu Zeng,
Prof. Dehui Cheng, and
Prof. Zhuoran Lin*

As a modern basic instrumental analytical technique, microbeam analysis involves worldwide commercial manufacturing and sale of sophisticated instrumentation, including electron microprobe (EMP), scanning electron microscope (SEM), analytical electron microscope (AEM) and energy dispersive x-ray spectroscope (EDX), and operation and services of microbeam analysis laboratories (governmental, commercial, academic or educational).

This instrumentation and its methodology are widely employed in quality management and assurance and research and development in basic and high-tech industries, including metallurgy, chemical engineering, petroleum, semiconductor materials, micro-electronics, information technology, nanotechnology, medical sciences and biotechnology, in testing and research in many sectors of the economy, technology and sciences. Quantitatively, the overall scale of the markets addressed by the committee may be indirectly reflected in the following estimated worldwide figures for the past three years of more than:

- 100 000 microbeam analysis instruments in operation;
- 50 000 000 microbeam analysis samples analyzed annually;
- 10 000 microbeam analysis instruments manufactured annually.

ISO technical committee ISO/TC 202, *Microbeam analysis*, was established in 1992 with the Standardization Administration of China (SAC) as its secretariat, to develop International Standards in the field of microbeam analysis.



“International Standards have harmonized analytical practices for microbeam analysis.”

Harmonizing analytical practices

Over the past 13 years, ISO/TC 202 has published six International Standards and currently eight others are at different stages of development.

The benefits already realized as a result of the published International Standards, and the ones expected