Introduction to the ISO/IEC 20000 Series

IT Service Management
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Foreword

Organizations are more dependent on IT services than ever and face the challenge of constant business and technology change. Many are concerned whether their IT services align with the needs of the business and its customers.

ISO/IEC 20000 is an internationally recognized set of standards for IT service management that is used around the world. There are many reasons for an organization to use the 20000 series and to implement the requirements specified in Part 1. For example, a service provider certified under Part 1 has independent proof of having implemented best practices, such as those in the ITIL® IT Service Management framework.

Certification to ISO/IEC 20000-1 by an accredited certification body shows that a service provider is committed to delivering value to customers and continual service improvement. It demonstrates the existence of an effective service management system that satisfies the requirements of an independent external audit. Certification gives a service provider a competitive edge in marketing.

A service management system also provides support for corporate governance. For example, disclosure and financial reporting are important aspects of corporate governance. These are reliant on information from and the support of the processes in the 20000 series. Governance integrates and institutionalizes good practices for planning and organizing, acquiring and implementing, delivering and supporting, and monitoring the performance of services. This approach helps to ensure that an organization’s information and related technology supports its business objectives. Governance enables an organization to take full advantage of its information, maximizing benefits, capitalizing on opportunities and gaining competitive advantage.

The 20000 series is driven by the continual improvement of processes and services, so a service provider will normally find that implementing the requirements in Part 1 gives an improved service that adds much greater value to the customer. In turn this enables the customers to be more effective.

1 ITIL® is a Registered Trade Mark of the Office of Government Commerce in the United Kingdom and other countries
Implementing best practice service management can reduce costs at the same time as the quality of the service improves. Customer satisfaction improves and the number and seriousness of complaints is reduced. This can lead to a reduced management overhead of resolving complaints and dealing with unhappy users. Managers are set free to proactively manage services and change.
Introduction

Service management

Service management is defined as a set of capabilities to direct and control a service provider’s activities and resources to deliver and improve services. A service provider applies these capabilities to the design, transition, delivery and improvement of services, to fulfil service requirements.

Target audience

The 20000 multi-part series is applicable to many organizations, both internal and external service providers, public and private sector, large and small. Part 1 of the series is ISO/IEC 20000-1, requirements for a service management system.

This book will help those that are interested in:

- certification under Part 1;
- performing either certification or internal audits using Part 1 requirements;
- service and process improvement using the 20000 series;
- best practice service management, such as ITIL®;
- becoming personally qualified in service management;
- assurance that their service requirements will be fulfilled with a greater consistency in approach across their service supply chain.

This book will also be of interest to customers and business managers who interact with service providers as part of their responsibilities.


This book covers requirements and advice for a range of service management processes using figures, tables, checklists and examples. It uses material from the 20000 series. The chapters are:

Chapter 1 explains the whole 20000 series and the way the other parts can be used to help achieve the requirements in ISO/IEC 20000-1:2011.
Chapter 2 describes the approach to defining the scope of a service management system (SMS).

Chapters 3 to 5 cover the establishment of an SMS that fulfils the requirements of ISO/IEC 20000-1, including the approach to integrating processes.

Chapter 6 covers the importance of people in delivering services. Personnel need to be well organized and co-ordinated. This chapter provides advice on some aspects of managing and motivating managers and personnel.

Chapter 7 includes advice on the correct process for control of documentation and what can be required as part of evidence for a certification audit.

Chapters 8 to 13 cover service reporting and the management of the service supply chain provided by supplier management, service level management (SLM) and business relationship management (BRM). It describes aspects of information security, managing capacity, service continuity and availability and financial issues.

Chapters 14 to 17 cover the resolution processes and the closely related control processes: configuration, change and release and deployment management.

Chapter 18 explains the requirements for the design and transition of new and changed services including the interaction with the control processes. It includes advice on the issues that are likely to be encountered when major changes are implemented and the way these should be avoided or managed.

Annexes include the terms used in the 20000 series (Annex A). Annex B includes the content lists from each part of the 20000 series. Annex C includes the documents and records that can be required as evidence during an audit. Annex D is a case study and the final annex is a Bibliography.
Chapter 1  20000 is now a series

Introduction

The first editions of the International Standards ISO/IEC 20000-1 and ISO/IEC 20000-2, referred to as Parts 1 and 2, were published in 2005. This followed a fast-track process of a two part UK standard BS 15000.

The second edition of Part 1 is now available with the second edition of Part 2 due soon.

The parts of the 20000 series already published include Parts 3, 4 and 5. These are currently Technical Reports providing guidance on service management. Each document in the series supplements and complements the others. The published and planned parts of the series are described below.

The five published parts of the 20000 series are summarized in the table below.

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<th>Part</th>
<th>Status</th>
<th>Title/scope</th>
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<td>2</td>
<td>International Standard, due soon</td>
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<td>4</td>
<td>Technical Report, 2010</td>
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<td>5</td>
<td>Technical Report, 2010</td>
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To what does 20000 apply?

The multi-part 20000 series is applicable to many organizations, both internal and external service providers, public and private sector. The 20000 series applies equally to an internal service provider funded as an operating overhead and to one ‘charging’ via transfers between internal
cost-codes. It applies to a commercial organization providing outsourced services to large organizations and to service providers delivering Internet-based services to individual customers paying a monthly subscription.

The 20000 series is applicable to service providers of all sizes ranging from less than 10 people to many hundreds of thousands of personnel. While the requirements remain unchanged for large or small organizations, the ways those requirements are fulfilled may differ significantly. For example, a large service provider would need sophisticated capacity management planning; a small organization would meet Part 1 requirements and function effectively with a very basic plan.

The series is useful for an organization subject to regulations or legislation covering their activities, such as the finance or the pharmaceutical sectors.

The 20000 series is also applicable to service providers who rely on some services delivered by other parties. The series is independent of organizational structure or the technologies used for the delivery of services or to automate service management. Technology does not change the requirements in Part 1, but can have an impact on the skills, tools and data needs.


The service provider’s CEO said:

We are now more focused on delivering end-to-end services that create value for our business and our external customers. Investing in developing our service management capability has enabled business transformation whilst maintaining control. Achieving certification to ISO/IEC 20000-1 is good marketing for delivering world class IT services and we are growing our customer base.

This service provider is planning on converting to certification under edition 2 of ISO/IEC 20000-1, published in 2011.

The 20000 series

Part 1

Part 1 is the core of the 20000 series and is the basis for establishing a service management system (SMS), continual service improvements, management reviews, internal and certification audits. Part 1 requirements are compulsory for a certification audit.
The differences between the first and second editions of Part 1 have been summarized in the table below.

### Table 2 – The key differences between Part 1 editions 1 and 2

| The most important changes are linked to the reality faced by many service providers: how the contribution made by other groups to the overall service should be managed. |
| The first step was the publication of Part 3, on the scope of the service management system, services and service management. Part 1 now includes a new Clause 4.2 on the governance of processes. This is a short but exacting clause on how the contribution should be managed and what the service provider has to do to be in control of the overall service. |
| The new requirements cover additional control for suppliers, internal groups and customers acting as suppliers. Part 1 uses the term internal groups for in-house suppliers not under the direct control of the service provider. Customers acting as suppliers are groups that contribute part of the overall service. As part of the customer’s organization they are not managed directly by the service provider. |
| The requirements for process governance are linked to the new requirements in Part 1 for defining scope, when it should be done and what parameters are required. Scope is affected by what suppliers and other parties contribute, so clarity on this is more important than ever before. Scope is also affected by the services, customers, types of hardware and locations. |
| The new edition of Part 1 has several important features to support its international use. |
| Wording has been standardized so that it translates more easily and consistently. For example, Part 1 does not now use ‘management control’, because of difficulties in translation. Instead Part 1 uses just ‘management’ or ‘control’ or ‘governance of processes’, depending on the context. |
| There are more special terms included. When possible Part 1 uses the same special terms as ISO 9001 and ISO/IEC 27001. Service management terms have been extended, but Part 1 still relies mainly on words being used with the meanings in commonly used dictionaries. |
| There are some structural changes, for example Clauses 3 and 4 have been merged to give a larger Clause 4, general requirements for a service management system, including more requirements for continual improvement. |
| Part 1 is longer. New requirements include a service catalogue, when previously this was only a recommendation. Other changes include the introduction of requirements for service request management and release becoming release and deployment. |
Other changes include new requirements for services that are considered to be at higher than usual risk from changes. The new and changed service process in Clause 5 now includes the first stage of the service lifecycle, both planning and design of services, so that the service provider is aware of new services soon enough to avoid any bad decisions made early in planning and design.

Some named roles, such as process owner, are not now used in Part 1, but the role and responsibilities are still included.

ISO is completely independent of certification or qualification schemes and does not say how the changes will impact schemes or how long the changeover should take. There will be a phased changeover defined and managed by the owners of each scheme, of which there are now several world-wide. The changeover may differ across schemes so clarification should be sought from scheme owners.


Part 2

The second edition of Part 2 is close to completion. It provides guidance on the application of an SMS, describing the intent, concepts and requirements for each process in Part 1. It provides advice on the roles and responsibilities and the documents and records required.

Part 3

Part 3 includes advice on evidence that will be required during an audit against Part 1 requirements. However, its most significant contribution to the 20000 series is guidance on defining the scope of an SMS. As a result of this, Part 3 also provides advice on how to define the scope of service management.

Part 3 explains when Part 1 is applicable. For example, does the service provider have governance of all processes, including any processes operated by other parties? Can the service provider agree an acceptable scope statement for a certification audit? To provide additional help, examples of the reverse are also included, i.e. where Part 1 may not be used for a certification audit.

Part 3 is underpinned by practical, scenario-based guidance, illustrating the way the 20000 series may be used by a service provider faced with a range of the most common circumstances.
Part 1 requires the service provider to demonstrate governance of any processes operated by other parties. Failure to show that a service provider is in control will mean that the scope will be restricted and the service provider might not be able to fulfil all Part 1 requirements. As a direct consequence, Part 3 is essential reading for any service provider that has asked another organization to manage their services or operate any of their service management processes.

Part 4

Part 4 is a service management process reference model, aligned to Part 1. The process reference model defines each Part 1 process using inputs, outputs and activities. Although it can assist with process design it was developed as the basis of a five-level assessment model, which is under development.

Part 5

Part 5, published in 2010, includes practical ‘what to do when’ advice for a three phase implementation of an SMS. Such a phased implementation incurs lower risks and costs than doing everything in a single step. It includes practical examples and is partly based on scenarios that apply to most service providers.

In Part 5, the first phase is the implementation of those parts of the SMS that support the quick and effective reaction to service disruptions. For example, Phase 1 includes most of incident management but only basic service reporting.

More is implemented in Phase 2: the service provider is then able to anticipate service disruptions or requests and to provide a more reliable service. For example, the more advanced or proactive aspects of processes established in Phase 1 or processes such as release management that require a more mature approach to service management.

Phase 3 involves integration and consolidation of all processes, improvements in established processes and procedures. It also includes implementation of the design and transition of new or changed services, which interfaces to major or higher risk projects. The end result of Phase 3 is an SMS that conforms to Part 1, with consolidation and continual improvement carried on afterwards.

Service providers with an incomplete SMS can use Phase 1 as a programme of improvements to what is already in place. Part 5 is generic, so can be used by most service providers.
What about Parts 6 to 10?

Other parts are being considered, with a focus on explaining the way the requirements in Part 1 map and align to other standards, methods and frameworks. These proposals were identified by market research.

Market research continues to play a part in identifying what will (or will not) be developed in support of Part 1.

The style guide used to keep the 20000 series consistent is being incorporated in a new Part 10, with the title ‘Concepts and terminology’. It will contain the special terms used in the 20000 series.

**Terminology**

In Part 1, each requirement is indicated by the use of ‘shall’. The verb ‘shall’ is not used in the rest of the 20000 series, which contains advice and not requirements.

In Part 1 and the rest of the 20000 series the verb ‘may’ is used to show something is permitted under the Part 1 requirements, but is not compulsory. The verb ‘can’ is used if something is possible, but again it is not compulsory.

Part 1 includes a few notes. These are not part of the requirements and will not be used in an audit. They are primarily used to suggest other material that will help explain. Occasionally a note will be used to ensure a requirement is unambiguous. An example is the note in Part 1, Clause 1.2 that refers to Part 3 as a useful source of information on scope definition and applicability.

Part 1 does not require a service provider to use the terms used in the 20000 series, although there should be no ambiguity about what each process includes. It is usually easier for a service provider to adopt common industry terms. If this has not been done, an auditor will find it useful to have a mapping of the service provider’s terms with those used in the 20000 series. This is particularly important for the special terms, in Part 1, Clause 3, which are also included in Annex A.
**Use of tools**

**Key point**

Special terms are included in Part 1, Clause 3. All other terms are ‘normal’ words, with the meaning given in widely used UK English language dictionaries. The consistent use of ‘normal’ words has helped with understanding, interpretation and translation. It has helped keep the 20000 series aligned. Jargon is not allowed, so for example, a scope is defined because ‘scoping’ is not in dictionaries, although ‘scoping’ is often used in conversations.

The consistency of usage will add value for native English speakers, but most of the benefit will be for readers from the many different language groups that now use the 20000 series.

Consistency of usage supports consistency of translation into other languages, in particular for words with no exact equivalent in the target language.

English is a flexible, context sensitive and evolving language, where a word can mean something different according to the context in which it is being used. However, this use of standardized, normal UK English has also been codified as a style guide to keep the wording in each part and across the whole 20000 series consistent.

Examples include ‘establish’ to mean ‘to set up’ [an SMS, a policy or process]. Establish is used for the setting up of [something], after it has been defined. Establish is then followed by ‘implement’ – ‘to carry out, fulfill or perform’. It is always used for ‘implement an [SMS, a plan or process]’. To differentiate, a service or release is ‘deployed’, where the meaning is the normal English language meaning of ‘to organize and bring into use’.

**Use of tools**

The generic, broad-based approach of the 20000 series means that there are no requirements on the use of tools or other supporting system. A service provider could fulfil all the Part 1 requirements without any tools at all.

In practice service providers use a wide range of tools to assist them to fulfil Part 1 requirements and to deliver the service. This reduces overall costs and risks from errors. Examples include service desk logging and reporting tools, performance monitoring tools and configuration.
management databases (CMDBs). If tools are used they become an integral part of the SMS. Although the tools will not be audited their output will be.