PD ISO/IEC TR 20000-10:2015

BSI Standards Publication

# Information technology — Service management

## Part 10: Concepts and terminology

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## National foreword

This Published Document is the UK implementation of ISO/IEC TR 20000-10:2015. It supersedes PD ISO/IEC TR 20000-10:2013 which is withdrawn.

The UK participation in its preparation was entrusted by Technical Committee IST/60, IT Service Management and IT Governance, to Subcommittee IST/60/2, IT Service Management.

A list of organizations represented on this committee can be obtained on request to its secretary.

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PD ISO/IEC TR 20000-10:2015

TECHNICAL REPORT

# ISO/IEC TR 20000-10

Second edition
2015-11-01

# Information technology — Service management —

## Part 10: Concepts and terminology

*Technologies de l'information — Gestion des services —*

*Partie 10: Concepts et terminologie*

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ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

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# Foreword

ISO (the International Organization for Standardization) and IEC (the International Electrotechnical Commission) form the specialized system for worldwide standardization. National bodies that are members of ISO or IEC participate in the development of International Standards through technical committees established by the respective organization to deal with particular fields of technical activity. ISO and IEC technical committees collaborate in fields of mutual interest. Other international organizations, governmental and non-governmental, in liaison with ISO and IEC, also take part in the work. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO and IEC shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 40, *IT Service Management and IT Governance*.

This second edition cancels and replaces the first edition (ISO/IEC TR 20000-10:2013), which has been technically revised.

ISO/IEC 20000 consists of the following parts, under the general title Information technology — Service management:

— *Part 1: Service management system requirements*

— *Part 2: Guidance on the application of service management systems*

— *Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1*

— *Part 4: Process reference model* [Technical Report]

— *Part 5: Exemplar implementation plan for ISO/IEC 20000-1* [Technical Report]

— *Part 9: Guidance on the application of ISO/IEC 20000-1 to cloud services* [Technical Report]

— *Part 10: Concepts and terminology* [Technical Report]

— *Part 11: Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: ITIL®*[1)] [Technical Report]

The following parts are under preparation

— *Part 6: Requirements for bodies providing audit and certification of service management systems*

— *Part 8: Guidance on usage and benefits of the application of service management systems for smaller organizations* [Technical Report]

1) ITIL® is a registered trademark of AXELOS Limited.

— *Part 12: Guidance on the relationship between ISO/IEC 20000-1:2011 and service management frameworks: CMMI-SVC®*[2)] [Technical Report]

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# Introduction

This part of ISO/IEC 20000 provides an overview of the concepts and the terminology of ISO/IEC 20000. It establishes a common framework for helping organizations to understand the purpose of all the parts of ISO/IEC 20000 and the relationships between the parts. This part of ISO/IEC 20000 is intended to become the authoritative source for definitions used in all the parts of ISO/IEC 20000. Terms defined in this part of ISO/IEC 20000 will be removed from other published parts of ISO/IEC 20000 as they are updated.

This part of ISO/IEC 20000 also identifies other documents that have relationships with ISO/IEC 20000-1:2011 and identifies common areas with related International Standards to aid the use and integration of multiple International Standards in organizations.

This part of ISO/IEC 20000 can be used by any organization or individual involved in the planning, design, transition, delivery and improvement of services using ISO/IEC 20000-1:2011. It can also be used for those involved in the assessment or audit of service management systems (SMS), providing details of all parts of ISO/IEC 20000 and how they can be used. More specifically, this part of ISO/IEC 20000

a) defines the terms used in ISO/IEC 20000,

b) promotes cohesion between the parts of ISO/IEC 20000 by explaining the concepts and terminology used across all parts,

c) contributes to the understanding of ISO/IEC 20000 by clarifying the relationships between all the parts,

d) clarifies the possible interfaces and integration between the service provider's SMS and other management systems,

e) provides an overview of other International Standards which can be used in combination with ISO/IEC 20000, and

f) identifies common areas between ISO/IEC 20000-1 and other International Standards.

Figure 1 represents an overview of the relationships between the parts of ISO/IEC 20000 as well as relevant frameworks and other external influences.

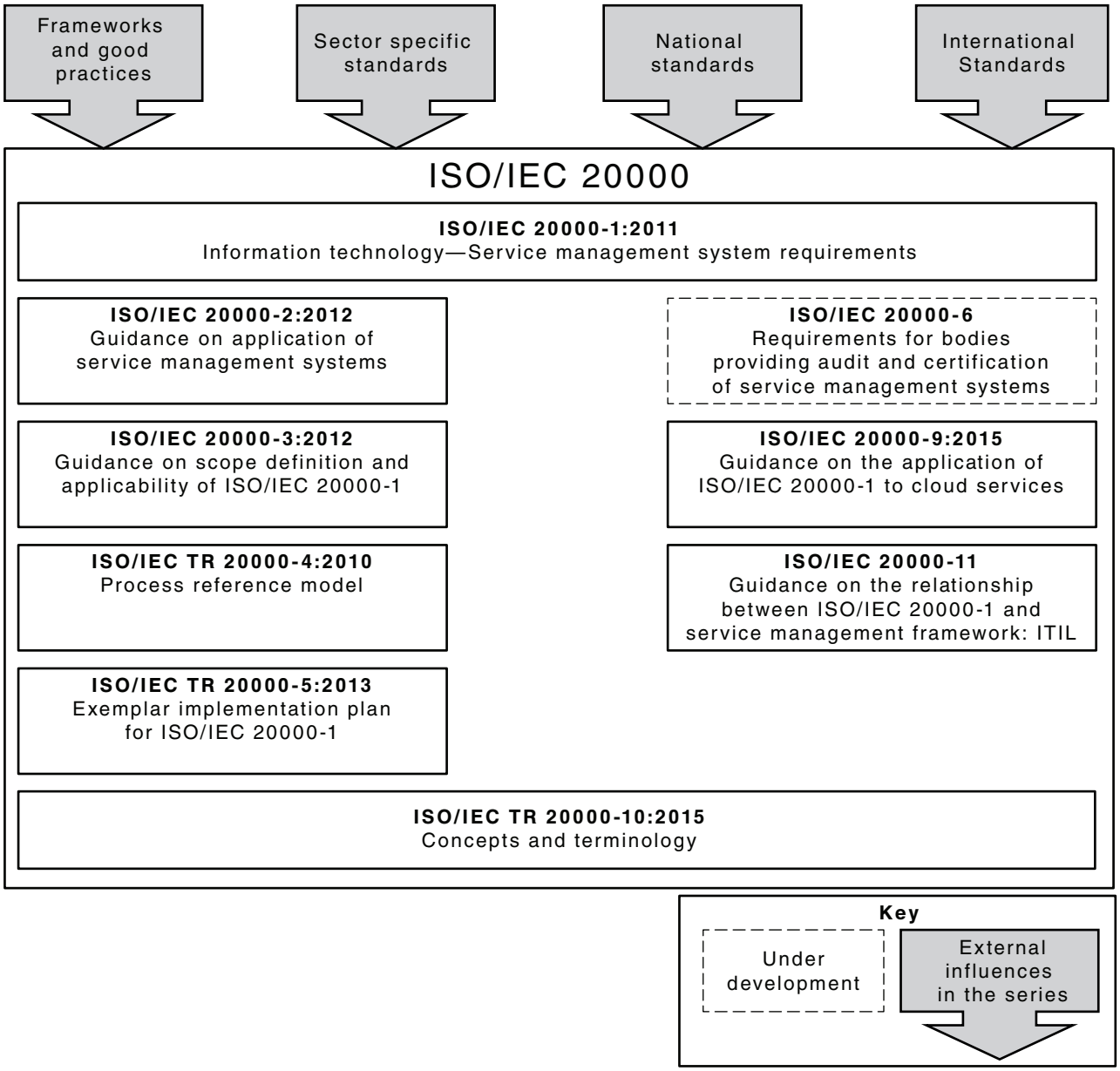


**Figure 1 — Overview of parts of ISO/IEC 20000 addressed in ISO/IEC/TR 20000-10**

**TECHNICAL REPORT** **ISO/IEC TR 20000-10:2015(E)**

# Information technology — Service management —

# Part 10: Concepts and terminology

## 1 Scope

This part of ISO/IEC 20000 describes the core concepts of ISO/IEC 20000, identifying how the different parts support ISO/IEC 20000-1:2011 as well as the relationships between ISO/IEC 20000 and other International Standards and Technical Reports. This part of ISO/IEC 20000 also explains the terminology used in ISO/IEC 20000, so that organisations and individuals can interpret the concepts correctly.

This part of ISO/IEC 20000 is for

a) service providers considering using any part of ISO/IEC 20000 and looking for guidance on how to use the different parts of ISO/IEC 20000 to achieve their goal,

b) service providers that wish to understand how ISO/IEC 20000 can be used in combination with other International Standards, and

c) practitioners, auditors, and other parties who wish to gain an understanding of ISO/IEC 20000.

## 2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

NOTE 1 Terms and definitions used in ISO/IEC 20000 but not included in this part can be found in standard English dictionaries.

NOTE 2 The formatting of the terms and definitions clause has been edited to reflect the ISO/IEC Directives, Part 2, 2011 version. It has not changed the content of the definitions as they were published in ISO/IEC 20000-1:2011.

**2.1**
**availability**
ability of a service or service component to perform its required function at an agreed instant or over an agreed period of time

Note 1 to entry: Availability is normally expressed as a ratio or percentage of the time that the service or service component is actually available for use by the customer to the agreed time that the service should be available.

**2.2**
**configuration baseline**
configuration information formally designated at a specific time during a service or service component's life

Note 1 to entry: Configuration baselines, plus approved changes from those baselines, constitute the current configuration information.

[SOURCE: ISO/IEC/IEEE 24765:2010, modified]

**2.3**
**configuration item**
**CI**
element that needs to be controlled in order to deliver a service or services

**2.4**
**configuration management database**
**CMDB**
data store used to record attributes of configuration items, and the relationships between configuration items, throughout their lifecycle

**2.5**
**continual improvement**
recurring activity to increase the ability to fulfil service requirements

[SOURCE: ISO 9000:2005, modified]

**2.6**
**corrective action**
action to eliminate the cause or reduce the likelihood of recurrence of a detected nonconformity or other undesirable situation

[SOURCE: ISO 9000:2005, modified]

**2.7**
**customer**
organization or part of an organization that receives a service or services

Note 1 to entry: A customer can be internal or external to the service provider's organization.

[SOURCE: ISO 9000:2005, modified]

**2.8**
**document**
information and its supporting medium

[SOURCE: ISO 9000:2005]

EXAMPLE Policies, plans, process descriptions, procedures, service level agreements, contracts or records.

Note 1 to entry: The documentation can be in any form or type of medium.

Note 2 to entry: In ISO/IEC 20000, documents, except for records, state the intent to be achieved.

**2.9**
**effectiveness**
extent to which planned activities are realized and planned results achieved

[SOURCE: ISO 9000:2005]

**2.10**
**incident**
unplanned interruption to a service, a reduction in the quality of a service or an event that has not yet impacted the services to the customer

**2.11**
**information security**
preservation of confidentiality, integrity and accessibility of information

Note 1 to entry: In addition, other properties such as authenticity, accountability, non-repudiation and reliability can also be involved.

Note 2 to entry: The term 'availability' has not been used in this definition because it is a defined term in this part of ISO/IEC 20000 which would not be appropriate for this definition.

[SOURCE: ISO/IEC 27000:2014, modified]

**2.12**
**information security incident**
single or a series of unwanted or unexpected information security events that have a significant probability of compromising business operations and threatening information security

[SOURCE: ISO/IEC 27000:2014]

**2.13**
**interested party**
person or group having a specific interest in the performance or success of the service provider's activity or activities

EXAMPLE Customers, owners, management, people in the service provider's organization, suppliers, bankers, unions or partners.

Note 1 to entry: A group can comprise an organization, a part thereof, or more than one organization.

[SOURCE: ISO 9000:2005, modified]

**2.14**
**internal group**
part of the service provider's organization that enters into a documented agreement with the service provider to contribute to the design, transition, delivery and improvement of a service or services

Note 1 to entry: The internal group is outside the scope of the service provider's SMS.

**2.15**
**known error**
problem that has an identified root cause or a method of reducing or eliminating its impact on the services by working around it

**2.16**
**nonconformity**
non-fulfilment of a requirement

[SOURCE: ISO 9000:2005]

**2.17**
**organization**
group of people and facilities with an arrangement of responsibilities, authorities and relationships

EXAMPLE Company, corporation, firm, enterprise, institution, charity, sole trader, association, or parts or combination thereof.

Note 1 to entry: The arrangement is generally orderly.

Note 2 to entry: An organization can be public or private.

[SOURCE: ISO 9000:2005]

**2.18**
**preventive action**
action to avoid or eliminate the causes, or reduce the likelihood, of occurrence of a potential nonconformity or other potential undesirable situation

[SOURCE: ISO 9000:2005, modified]

**2.19**
**problem**
root cause of one or more incidents

Note 1 to entry: The root cause is not usually known at the time a problem record is created and the problem management process is responsible for further investigation.

**2.20**
**procedure**
specified way to carry out an activity or a process

[SOURCE: ISO 9000:2005]

Note 1 to entry: Procedures can be documented or not.

**2.21**
**process**
set of interrelated or interacting activities which transforms inputs into outputs

[SOURCE: ISO 9000:2005]

**2.22**
**record**
document stating results achieved or providing evidence of activities performed

[SOURCE: ISO 9000:2005]

EXAMPLE Audit reports, incident reports, training records or minutes of meetings.

**2.23**
**release**
collection of one or more new or changed configuration items deployed into the live environment as a result of one or more changes

**2.24**
**request for change**
proposal for a change to be made to a service, service component or the SMS

Note 1 to entry: A change to a service includes the provision of a new service or the removal of a service which is no longer required.

**2.25**
**risk**
effect of uncertainty on objectives

Note 1 to entry: An effect is a deviation from the expected — positive and/or negative.

Note 2 to entry: Objectives can have different aspects (such as financial, health and safety, and environmental goals) and can apply at different levels (such as strategic, organization-wide, project, product and process).

Note 3 to entry: Risk is often characterized by reference to potential events and consequences, or a combination of these.

Note 4 to entry: Risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of occurrence.

[SOURCE: ISO 31000:2009]

**2.26**
**service**
means of delivering value for the customer by facilitating results the customer wants to achieve

Note 1 to entry: Service is generally intangible.

Note 2 to entry: A service can also be delivered to the service provider by a supplier, an internal group or a customer acting as a supplier.

**2.27**
**service component**
single unit of a service that when combined with other units will deliver a complete service

EXAMPLE Hardware, software, tools, applications, documentation, information, processes or supporting services

Note 1 to entry: A service component can consist of one or more configuration items.

**2.28**
**service continuity**
capability to manage risks and events that could have serious impact on a service or services in order to continually deliver services at agreed levels

**2.29**
**service level agreement**
**SLA**
documented agreement between the service provider and customer that identifies services and service targets

Note 1 to entry: A service level agreement can also be established between the service provider and a supplier or an internal group or a customer acting as a supplier.

Note 2 to entry: A service level agreement can be included in a contract or another type of documented agreement.

**2.30**
**service management**
set of capabilities and processes to direct and control the service provider's activities and resources for the design, transition, delivery and improvement of services to fulfil the service requirements

**2.31**
**service management system**
**SMS**
management system to direct and control the service management activities of the service provider

Note 1 to entry: A management system is a set of interrelated or interacting elements to establish policy and objectives and to achieve those objectives.

Note 2 to entry: The SMS includes all service management policies, objectives, plans, processes, documentation and resources required for the design, transition, delivery and improvement of services and to fulfil the requirements specified in ISO/IEC 20000-1:2011.

Note 3 to entry: Adapted from the definition of 'quality management system' in ISO 9000:2005.

**2.32**
**service provider**
organization or part of an organization that manages and delivers a service or services to the customer

Note 1 to entry: A customer can be internal or external to the service provider's organization.

**2.33**
**service request**
request for information, advice, access to a service or a pre-approved change

**2.34**
**service requirement**
needs of the customer and the users of the service, including service level requirements, and the needs of the service provider

**2.35**
**supplier**
organization or part of an organization that is external to the service provider's organization and enters into a contract with the service provider to contribute to the design, transition, delivery and improvement of a service or services or processes

Note 1 to entry: Suppliers include designated lead suppliers but not their sub-contracted suppliers.

**2.36**
**top management**
person or group of people who direct and control the service provider at the highest level

[SOURCE: ISO 9000:2005, modified]

**2.37**
**transition**
activities involved in moving a new or changed service to or from the live environment

## 3 Terminology used in ISO/IEC 20000

Most terms in ISO/IEC 20000 use the definitions found in commonly available English language dictionaries and in some cases use defined terms. These defined terms are taken from other management system standards or are specifically defined for ISO/IEC 20000, e.g. 'document', 'effectiveness' and 'top management' from ISO 9000:2005, 'information security' from ISO/IEC 27000, 'service' specifically defined for ISO/IEC 20000.

The term 'top management' in the context of ISO/IEC 20000 refers to the person or group of people who direct and control the service provider at the highest level. If the service provider is part of a larger organisation 'top management' in ISO/IEC 20000 still refers to those who direct and control the part of the organisation that is defined as the service provider. The term 'top management' is used in ISO 9000:2005 for those responsible for the organization. In ISO/IEC 20000 'top management' is responsible for that part of the organization relevant to the service provider's SMS and its scope.

Other terms defined in ISO 9000:2005 are used in ISO/IEC 20000-1:2011. Generally these terms are closely linked to management systems (e.g. process, procedure, document, record, corrective action, preventive action). In some cases the definitions in ISO 9000:2005 have been adapted to apply to services, because ISO/IEC 20000-1:2011 was developed specifically for SMS and services.

The term 'governance' is an example of a term commonly available in English language dictionaries but that is used in ISO/IEC 20000 only in the context of 'governance of processes operated by other parties'.

ISO/IEC 20000-1:2011 uses a defined term, configuration item (CI), as an element that should be controlled in order to deliver a service or services. The service provider should therefore define what should be controlled as a CI to support business objectives and service requirements specific to its organization. Some but not necessarily all assets can be considered CIs, for example a software application or a service level agreement (SLA) are assets that are also CIs. Records can be assets but not CIs.

Although the wording of the definition of 'information security incident' used in ISO/IEC 20000 was taken from ISO/IEC 27000:2009, the way is defined and used in ISO/IEC 20000 is different.

In ISO/IEC 27000:2014, information security incident is the term used for all unwanted events threatening information security. ISO/IEC 27001:2013 describes a single process to deal with information security incidents.

NOTE ISO/IEC 27013 provides further information about the integration of ISO/IEC 20000-1 and ISO/IEC 27001 including how to reconcile the differences between terminology in the two standards.

In contrast, in ISO/IEC 20000-1:2011 there are several mechanisms used for managing unwanted events and related records: incident, information security incident, problem, known error, and major

 

incident. These can all be information security incidents according to ISO/IEC 27001:2013, depending on their characteristics.

ISO/IEC 20000-1:2011 also has a variety of mechanisms to manage these events, such as incident and service request management, major incident procedure and problem management. An unwanted event can be managed by more than one of these processes and procedures during its lifecycle.

In order to keep all parts of ISO/IEC 20000 aligned, defined terms, words and phrases are used consistently across all parts. For example, the phrase 'fulfil requirements', is used, not 'meet requirements'. This consistency has also been adopted to assist in the consistent translation of the parts of ISO/IEC 20000 into other languages.

# 4 Service management systems

## 4.1 General

An SMS can provide service providers with a means of delivering services that are aligned to the business needs and the customer requirements. The implementation of an SMS can enable top management to have the visibility and control they require to deliver business value and sustain competitive advantage. Managing services via an integrated process approach can help to ensure that services are consistent and that the introduction of new or changed services is planned and coordinated.

## 4.2 What is an SMS

An SMS is a set of interacting components to direct and control the service management activities of the service provider. It includes policies, objectives, plans, processes, documentation and resources to achieve the service management objectives of the service provider and to fulfil the service requirements. An SMS should direct and control the service management activities of the service provider to design, transition, deliver, manage and improve services to fulfil the business needs and customer requirements (internal or external).

An SMS for delivering and managing services to the customer, based on ISO/IEC 20000-1:2011, can provide increased control, greater effectiveness and more opportunities for improvement within the service provider organization. An SMS can directly contribute to the efficient and effective management of service components and services, providing value and reducing the potential risk of failure by the service provider. As an SMS can contribute to an improved quality of the services provided, more flexible time to market, faster response to customer needs and improved relations with customers, among other things, the service provider can benefit from increased credibility as a service provider and a stronger market position.

The SMS relies on the following principles:

a) focus on the customer's agreed service requirements;

b) strong leadership to support the SMS and communicate its importance to interested parties;

c) end to end management of services involving:

   1) the service provider;

   2) internal or external customers;

   3) suppliers;

   4) internal groups;

   5) interested parties;

d) integrated process approach;

e) continual improvement using the Plan-Do-Check-Act (PDCA) methodology.

The effectiveness of an SMS depends on the level and quality of implementation of each of these principles.

The design and establishment of an SMS can be influenced by the service requirements and service management objectives, which should be revised over time as the organization evolves. Other factors can contribute. For example the size and structure of the service provider, the type of services and whether the services are provided to internal customers, external customers, or both.

SMS and associated concepts are generic and intended to be applicable to all service providers, regardless of type, size and the nature of the service delivered. ISO/IEC 20000-1 can be applied by many types and sizes of organizations from very large enterprises with thousands of staff in multiple locations to small and medium enterprises with a low number of staff in a single location. ISO/IEC 20000-1 can be used for management of information, communication and technology enabled services within these organizations. ISO/IEC 20000-1 can be used across various business sectors and for various services such as telecommunications, finance, transportation, cloud services, facilities management, business process outsourcing, and many other services. The requirements for an SMS specified by ISO/IEC 20000-1 can be readily adopted for each organization to fit the sector, size and type of service.

## 4.3 The integrated process approach

A process is a set of interrelated or interacting activities with a defined objective that should be managed in an integrated way with other processes. This integration is achieved via interfaces between processes, specifically the process inputs and outputs. The output from one process can directly form the input to another process. Examples of process inputs and outputs can be viewed in ISO/IEC 20000-2:2012, Annex A. Processes state 'what' is to be done and they are often supported by procedures that state 'how' activities should be performed. The adoption of an integrated process approach requires the service provider to document and implement the service management processes, their interfaces with each other and their integration with the rest of the SMS. Critical processes can often apply across organizational boundaries thus complicating the specification of process management roles and responsibilities. In order to support a truly integrated model, top management should expect a degree of organizational transformation facilitated by consistent top management commitment and decision-making.

## 4.4 Continual improvement

The benefits derived from the continual improvement of the SMS include ensuring ongoing alignment of the SMS and services to the evolving needs of the business. This can enable the service provider to work as a mature learning organisation.

The improvement approach used in ISO/IEC 20000-1:2011 is based on the PDCA methodology. Figure 2 illustrates how the PDCA methodology can be applied to the SMS, including the service management processes specified in ISO/IEC 20000-1:2011, Clauses 5 to 9 and the services. Each element of the PDCA methodology is dependent on the previous element and is a vital part of a successful implementation of an SMS.

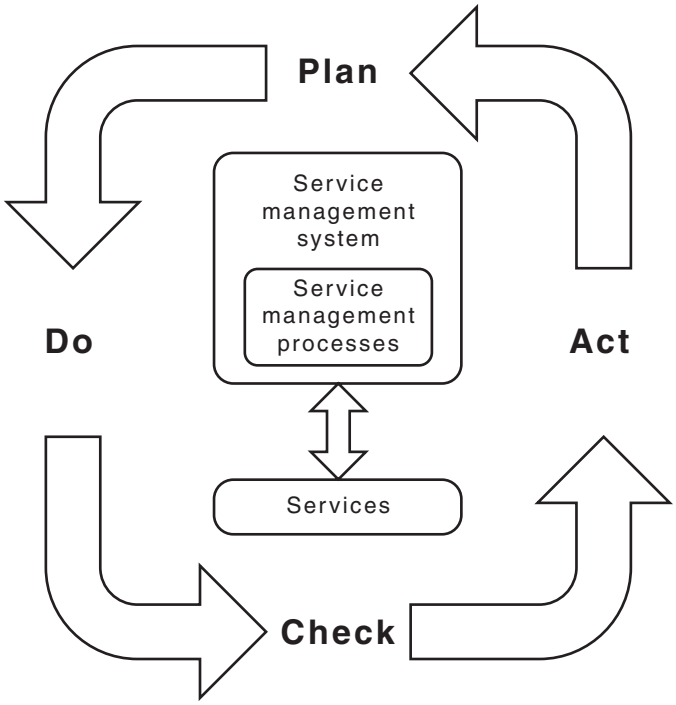


**Figure 2 — PDCA methodology applied to service management**

## 4.5 What constitutes an effective SMS

Many factors contribute to an effective SMS that can enable a service provider to address its service management objectives. Example factors include having:

a) policies that drive the correct behaviours;

b) a set of integrated service management processes, policies and plans contributing to and supporting measurable service management objectives;

c) an approach and framework for the design, transition, delivery and improvement of services consistent with the organizational culture;

d) visible support and commitment from all levels of management, especially top management;

e) a measurement system used to assess performance in service management and provide feedback and suggestions for improvement;

f) a service management owner and champion who has a mandate to manage and improve the SMS and services.

For the service provider to show evidence of the effectiveness of the SMS, specific performance indicators should be defined, monitored and reported for each of the factors listed above. For each indicator, the service provider should confirm its level of effectiveness and any improvements required.

## 4.6 Benefits of an SMS based on ISO/IEC 20000

### 4.6.1 General benefits of an SMS

When service providers implement an SMS, the ability to apply consistent and well understood management principles can be demonstrated to customers and other interested parties.

Benefits realised from the adoption of an SMS can include but are not limited to:

a) improving service performance and the value provided by the service provider to the business and customers through the implementation and continual improvement of the SMS and services;

b) reducing cost, time and disruption to services;

c) ensuring the SMS components are aligned with business objectives and that they provide value to the business;

d) ensuring the service management activities meet the business needs and fulfil service requirements in the scope of the SMS;

e) facilitating confidence of the business and customers with an SMS based on ISO/IEC 20000-1;

f) reducing risks through the use of an agreed risk management approach;

g) enabling improved coordination between a service provider, internal groups, suppliers and other parties;

h) supporting the specification, implementation, operation and maintenance of a comprehensive set of integrated service management processes;

i) enabling an improved recognition of roles, responsibilities and relationships to support the SMS and the services;

j) providing a common language for service management;

k) ensuring that personnel understand what is expected of them, are supported to develop required competencies and are recognised for their contribution.

ISO/IEC 20000-1 provides information on governance of IT through the control, measurement, reporting and traceability that it can provide to the governing body. It is complementary to best practice governance audit techniques. An SMS also provides support for enterprise governance, which is often reliant on information from services and the support of the processes specified in ISO/IEC 20000-1.

An SMS based on ISO/IEC 20000-1 can enable the business by ensuring that the services support the business and do not detract the business staff from performing their true roles. A poor service can lead to business staff spending time trying to fix the service or to get round the issues instead of doing their own job.

### 4.6.2 Benefits from independent assessment of an SMS against ISO/IEC 20000-1

An organization can choose to be independently assessed against the requirements specified in ISO/IEC 20000-1. This can have many benefits including external recognition of their ability to continually improve and to deliver services by fulfilling service requirements and the achievement of customer satisfaction. In an environment where services are sourced from a number of different suppliers, this assurance is likely to become increasingly important.

Independent assessment can enforce process compliance so that all the benefits of best practice service management can be gained. Instead of staff operating processes in an inconsistent way, they will have clear processes within the context of a management system conformant to ISO/IEC 20000-1, which will be assessed regularly.

An SMS can be integrated with other management systems such as a QMS for ISO 9001 and an ISMS for ISO/IEC 27001. The integrated management system can facilitate efficiencies of management practice and cost savings for auditing.

### 4.6.3 Benefits related to different service management scenarios

Service management can be implemented in many different ways leading to a variety of benefits. The table below gives examples of different service management implementation scenarios and the potential benefits which can be realised. The scenarios shown in Table 1 are not all examples of fully implementing an SMS. Only the last two scenarios completely fulfil the requirements specified in ISO/IEC 20000-1.

**Table 1 — Implementation Scenarios & Benefits**

| Implementation scenarios | Example | Potential outcomes and benefits |
|---|---|---|
| SMS not fully implemented. Some service management processes implemented | Just 2 processes implemented such as incident and change management | — Specific functional benefits of each process within limits of implemented areas |
| SMS not fully implemented. All service management processes implemented separately with no process integration | All processes in ISO/IEC 20000-1:2011, Clause 5 | — Increased availability<br>— Control provided by each process<br>— Improved management of services |
| SMS not fully implemented. All service management processes integrated | Change management can now operate fully with configuration and release & deployment management | — Increased effectiveness with full benefits of each process<br>— Consistency<br>— Traceability<br>— Control provided across processes<br>— Ability to restore service according to an IT service continuity plan<br>— Ability to manage information security requirements for the service delivery;<br>— SLAs related to the service requirements are agreed with the customer and managed<br>— Business relationship improved<br>— Suppliers managed in a consistent and controlled way |

**Table 1** *(continued)*

| Implementation scenarios | Example | Potential outcomes and benefits |
|---|---|---|
| SMS fully implemented without independent assessment against ISO/IEC 20000-1 | SMS policies, objectives, plans, documentation, resources, top management commitment, PDCA cycle, governance of processes operated by other parties, defined scope | — Continual improvement of service performance and value provided to the business and customers<br>— Service focused on policies and objectives related to the services and business strategy/objectives<br>— Increased services & business productivity<br>— Continual improvement of service quality including reliability<br>— Better co-ordination of all parties from users/customers to suppliers, internal groups and other interested parties<br>— Increased control of SMS and services, measurements and reporting<br>— Top management commitment demonstrated<br>— Staff responsibilities are clear, improved staff morale<br>— Implemented improvement cycle<br>— Agreed service requirements and documented SMS<br>— Improved governance of suppliers, other parties and the supply chain<br>— Optimised and controlled costs<br>— Reduced risks, regular risk assessment<br>— Documented process for future reference and standardization |
| SMS fully implemented with independent assessment against ISO/IEC 20000-1 | Full assessment every 3 years, surveillance assessment every year | — SMS is operated and maintained<br>— Continual improvement assured<br>— Independent proof of good practice and commitment to service management and service excellence<br>— Internationally recognised<br>— Competitive advantage<br>— Increased business and customer confidence<br>— Improved reputation |

## 4.7 Misperceptions about an SMS and ISO/IEC 20000-1

### 4.7.1 Introduction

There are many misperceptions about ISO/IEC 20000-1. Some of these are listed below.

### 4.7.2 Misperception 1 — ISO/IEC 20000 is only for large commercial organisations

**Fact:** ISO/IEC 20000-1:2011, 1.2 specifies that 'All requirements in this part of ISO/IEC 20000 are generic and are intended to be applicable to all service providers, regardless of type, size and the nature of the services delivered'. All management system standards can be used by all organisations – large, small, private, public and not for profit. Any service provider can fulfil all the requirements specified

in ISO/IEC 20000-1 and can demonstrate conformity with an independent assessment. There are many small service providers that use ISO/IEC 20000:— it is simply a matter of scaling to meet the needs and objectives of different organizations. Smaller service providers can also find it easier to implement an SMS due to having less complexity, fewer locations and fewer personnel.

#### 4.7.3 Misperception 2 — ISO/IEC 20000 is only applicable to IT infrastructure

**Fact:** ISO/IEC 20000 can be used across various business sectors and for various services such as telecommunications, finance, transportation, cloud services, facilities management, business process outsourcing, and many other services. Service providers also use ISO/IEC 20000 for telecommunications, cloud services, media services etc. Again, ISO/IEC 20000-1:2011, 1.2 specifies that 'All requirements in this part of ISO/IEC 20000 are applicable regardless of type, size and the nature of the services delivered'.

#### 4.7.4 Misperception 3 — ISO/IEC 20000 is only for external service providers

**Fact:** External service providers are those that provide services to customers outside of their own organisation, usually on a commercial basis. ISO/IEC 20000 enables external service providers to demonstrate their capability to provide good services. Many internal service providers, service providers that provide services within their own organization, have also realised benefits from fulfilling the requirements specified in ISO/IEC 20000-1. The SMS can facilitate full usage and integration of service management processes, something that often does not happen when implementing best practice processes alone. Additionally, the SMS adds management system discipline by use of the plan-do-check-act cycle guaranteeing continual improvement. The internal service provider can validate the quality of the service management best practices by demonstrating conformity to the requirements of ISO/IEC 20000-1 with an independent assessment. An SMS can enable the internal service provider to demonstrate the value of the services provided to the business. The use of ISO/IEC 20000-1 can also increase efficiency to help to continue to deliver quality services when there are budget cuts.

As an example, an internal service provider had one part of the business that rarely used the service desk because it was not performing well. With the implementation of the SMS and regular checks on conformity through independent assessment, the service desk improved significantly and the business department started to use it again. Business productivity improved because they were no longer supporting their own software and hardware but were supported by the service desk to deliver the business objectives.

#### 4.7.5 Misperception 4 — Service providers should use a specific best practice framework to fulfil the requirements specified in ISO/IEC 20000-1

**Fact:** ISO/IEC 20000 has been developed taking into account various best practice frameworks for service management. However, ISO/IEC 20000 is not intended to fulfil the same purpose as any one of these frameworks. The SMS can be implemented utilising various best practice frameworks or by utilising organization specific methods, or a combination of these. ISO/IEC 20000-1 states in the introduction 'ISO/IEC 20000-1 is intentionally independent of specific guidance. The service provider can use a combination of generally accepted guidance and its own experience.'

#### 4.7.6 Misperception 5 — ISO/IEC 20000 can make service management slow, more costly and bureaucratic

**Fact:** A good implementation of ISO/IEC 20000-1 should result in an SMS that delivers efficient, effective and high quality services. A poor implementation can result in a management system that is slow, costly and bureaucratic. Any poor implementation should be improved.

The documentation required to support the service provider or other interested parties should be easy to use and understand. Policies, processes, procedures and plans can all be streamlined. Each organization decides how to design the SMS and can choose to make it fast and efficient. The SMS should also become more streamlined and efficient as it matures and goes through the continual improvement cycle per the requirements specified in ISO/IEC 20000-1.

# 5 ISO/IEC 20000

## 5.1 General

ISO/IEC 20000 consists of several interrelated parts. The parts are either International Standards or Technical Reports.

ISO/IEC 20000 is designed for use by either internal or external service providers providing services. A key focus of an SMS is to enable a service provider to deliver services that fulfil the business needs and service requirements agreed between the service provider and its customers.

ISO/IEC 20000 can enable service providers to understand what needs to be in place to enhance the quality of service delivered to their customers, both internal and external.

The parts of ISO/IEC 20000 and the relationships between them are illustrated in Figure 3.

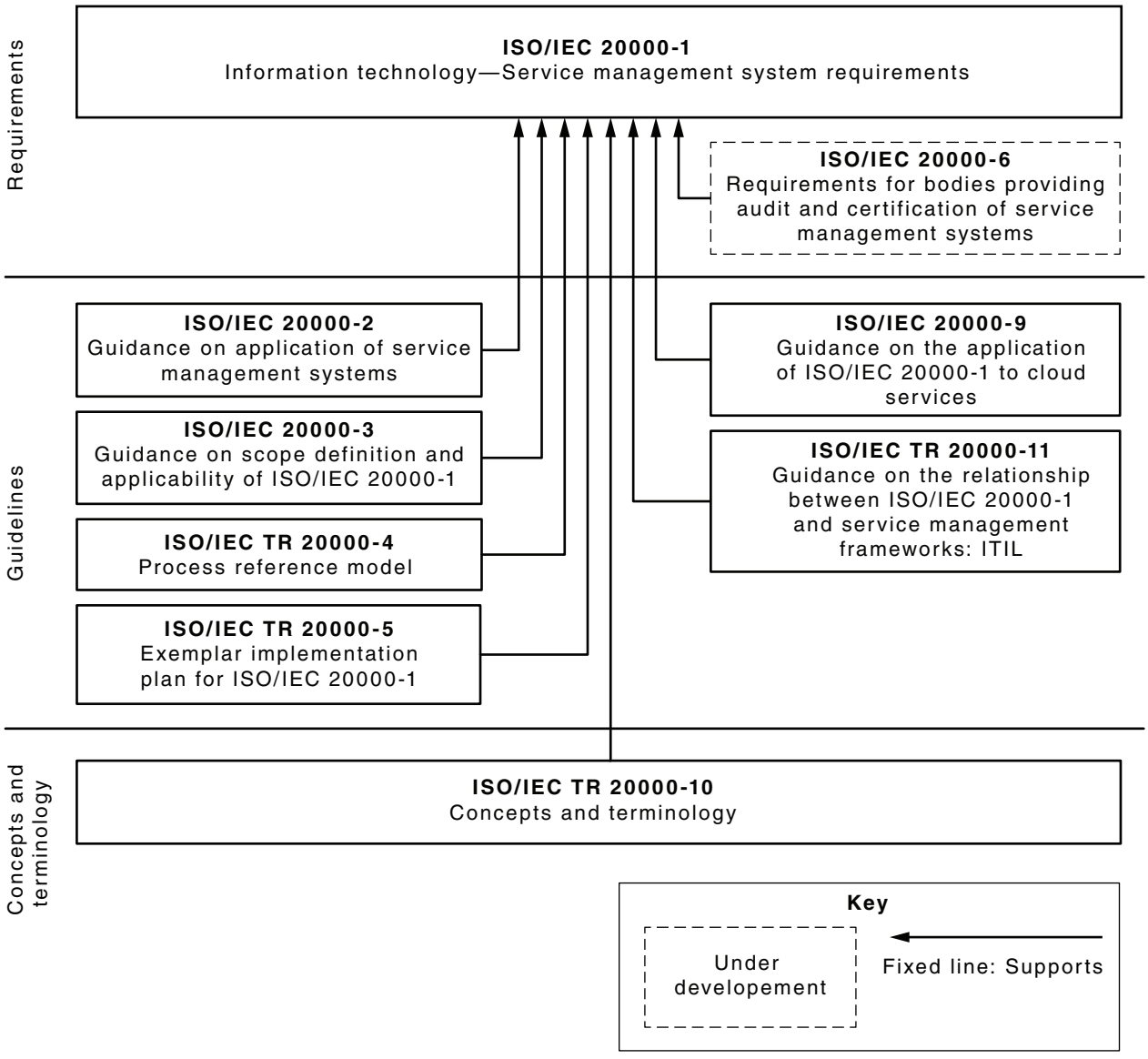


**Figure 3 — The parts of the ISO/IEC 20000- series**

## 5.2 ISO/IEC 20000-1:2011 Service management system requirements

### 5.2.1 Scope

ISO/IEC 20000-1:2011 specifies requirements for the service provider to plan, establish, implement, operate, monitor, review, maintain and improve an SMS. The requirements include the design, transition, delivery and improvement of services to fulfil service requirements.

### 5.2.2 Purpose

ISO/IEC 20000-1:2011 specifies the minimum requirements for an organization to establish and manage an SMS which is used to deliver services to support business objectives and customer requirements. ISO/IEC 20000-1:2011 can be used as the basis of conformity assessments for organizations that wish to demonstrate and improve the capabilities and efficiency of their SMS. It can also be used by:

a) an organization seeking services from service providers and requiring assurance that its service requirements will be fulfilled;

b) an organization looking for a consistent approach from all its service providers, including those in a supply chain;

c) a service provider that intends to demonstrate its capability for the design, transition, delivery and improvement of services that fulfil service requirements;

d) a service provider to monitor, measure and review its service management processes and services;

e) a service provider to improve the design, transition, delivery and improvement of services through effective implementation and operation of an SMS;

f) an assessor or auditor as the criteria for a conformity assessment of a service provider's SMS to the requirements specified in ISO/IEC 20000-1:2011.

All requirements in ISO/IEC 20000-1:2011 are generic and are intended to be applicable to all service providers, regardless of type, size and the nature of the services delivered. ISO/IEC 20000-1:2011 is independent of the technology that can be used to enable the delivery of services. The service provider may not exclude any of the requirements in ISO/IEC 20000-1:2011, Clauses 4 to 9 if it wishes to claim conformity to ISO/IEC 20000-1:2011, irrespective of the nature of the service provider's organization.

## 5.3 ISO/IEC 20000-2:2012 Guidance on application of service management systems

### 5.3.1 Scope

ISO/IEC 20000-2:2012 provides guidance on the application of an SMS based on ISO/IEC 20000-1:2011. ISO/IEC 20000-2:2012 provides examples and suggestions to enable organizations to interpret and apply ISO/IEC 20000-1:2011, including references to other parts of ISO/IEC 20000 and other relevant International Standards. ISO/IEC 20000-2:2012 is independent of specific best practice frameworks.

### 5.3.2 Purpose

ISO/IEC 20000-2:2012 can answer many of the questions organizations and individuals have about implementing an SMS, as well as how to interpret and apply ISO/IEC 20000-1:2011 more accurately and therefore use it more effectively. It can be used by an organization looking for guidance on how to improve service management, whether or not it is interested in demonstrating conformity to ISO/IEC 20000-1:2011.

### 5.3.3 Relationship with ISO/IEC 20000-1:2011

ISO/IEC 20000-2:2012 mirrors the structure of ISO/IEC 20000-1:2011 and provides guidance and examples for each clause.

ISO/IEC 20000-2:2012 also provides examples of interfaces and integration points between processes as well as other components of the SMS such as the service management policy and the service management plan. These examples can be used to help organizations understand how the SMS should function as an integrated system and that all components within the SMS have interdependencies.

## 5.4 ISO/IEC 20000-3:2012 Guidance on scope definition and applicability of ISO/IEC 20000-1

### 5.4.1 Scope

ISO/IEC 20000-3:2012 includes guidance on scope definition, applicability and demonstration of conformity to the requirements specified in ISO/IEC 20000-1:2011.

The guidance in ISO/IEC 20000-3:2012 can assist the service provider to plan service improvements and prepare for a conformity assessment against ISO/IEC 20000-1:2011.

ISO/IEC 20000-3:2012 can assist in establishing whether ISO/IEC 20000-1:2011 is applicable to a service provider's circumstances. It illustrates how the scope of an SMS can be defined, irrespective of whether the service provider has experience with defining the scope of other management systems.

### 5.4.2 Purpose

ISO/IEC 20000-3:2012 provides guidance on scope definition and applicability of ISO/IEC 20000-1:2011 to enable the service provider to prepare for the assessment of an SMS with an applicable and valid scope.

Given the range of internal and external agreements that a service provider can enter, defining an appropriate scope for the SMS can be challenging. In order to demonstrate conformity to the requirements specified in ISO/IEC 20000-1:2011, the service provider should demonstrate governance of processes operated by other parties. Care should be taken to carefully define and delineate the responsibilities and interfaces between the service provider and any other parties operating processes within the scope of the SMS.

### 5.4.3 Relationship with ISO/IEC 20000-1:2011

ISO/IEC 20000-3:2012 provides guidance on specific clauses of ISO/IEC 20000-1:2011, which can be useful to understand at the onset of an SMS implementation project. These are ISO/IEC 20000-1:2011, 1.2 (Application), ISO/IEC 20000-1:2011, 4.2 (Governance of processes operated by other parties) and ISO/IEC 20000-1:2011, 4.5.1 (Define scope).

ISO/IEC 20000-3:2012 provides specific guidance that supplements ISO/IEC 20000-2:2012.

## 5.5 ISO/IEC TR 20000-4:2010 Process reference model

### 5.5.1 Scope

ISO/IEC TR 20000-4:2010 defines a process reference model (PRM) comprising a set of processes for service management, described in terms of process purpose and outcomes that demonstrate coverage of the requirements specified in ISO/IEC 20000-1:2011.

### 5.5.2 Purpose

ISO/IEC TR 20000-4:2010 is an intermediate product for a specialist audience which provides the process dimension to facilitate measurement of process capability using the process assessment model defined in ISO/IEC TS 15504-8:2012.

### 5.5.3 Relationship with ISO/IEC 20000-1:2011

Because ISO/IEC TR 20000-4 was published in 2010, it is not aligned with ISO/IEC 20000-1:2011. It is also not aligned with ISO/IEC 20000-1:2005 but to an earlier draft edition of ISO/IEC 20000-1:2011. Each process described in ISO/IEC TR 20000-4:2010 includes a traceability mapping from each of the outcomes in the PRM to specific subclauses in the draft edition of ISO/IEC 20000-1.

The processes specified in ISO/IEC TR 20000-4:2010 are not identical to those specified in ISO/IEC 20000-1:2011. For example, risk management is a process in ISO/IEC TR 20000-4:2010 but is covered in ISO/IEC 20000-1:2011 as 'an approach to risk management' and not a separate process.

Interfaces between processes are included in ISO/IEC 20000-1:2011 but are not included in process reference models. Inputs and outputs of processes are described in the process assessment model defined in ISO/IEC TS 15504-8.

The PRM uses terms that are not used in ISO/IEC 20000, often to be compatible with software and systems engineering standards. For example, the PRM uses terms such as 'service specification' and 'service level performance' that are not used in ISO/IEC 20000-1:2011.

## 5.6 ISO/IEC TR 20000-5:2013 Exemplar implementation plan for ISO/IEC 20000-1

### 5.6.1 Scope

ISO/IEC TR 20000-5:2013 provides guidance for an approach to implementing an SMS that can fulfil the requirements specified in ISO/IEC 20000-1:2011. This part of ISO/IEC 20000 illustrates a generic, three- phased approach plan to manage implementation activities, taking into consideration the design, transition, delivery, management and improvement of services. The service provider can tailor the phases to suit its needs and constraints.

### 5.6.2 Purpose

ISO/IEC TR 20000-5:2013 provides guidance for service providers. It can be useful for those advising service providers on a suitable order to planning, implementing and improving an SMS using, as an example, a generic three-phased approach to manage the implementation. It also includes guidance on the development of a business case, the project initiation and other activities necessary for the implementation to be successful.

The phasing described in ISO/IEC TR 20000-5:2013 does not include changes to the intended scope of the service provider's SMS. The scope itself is not subject to phased changes as a result of adopting the advice in ISO/IEC TR 20000-5:2013. Instead, each phase should improve the SMS in alignment with the service provider's agreed scope, building on the results of the previous phase. Once the final phase is completed, the service provider can achieve the benefits of an SMS that fulfils all requirements specified in ISO/IEC 20000-1:2011.

ISO/IEC TR 20000-5:2013 provides examples of policies that can be tailored by the service providers to suit the organizational requirement.

ISO/IEC TR 20000-5:2013 provides templates that can help service providers to fulfil the requirements specified in ISO/IEC 20000-1:2011.

### 5.6.3 Relationships with ISO/IEC 20000-1:2011

ISO/IEC TR 20000-5:2013 maps the requirements specified in ISO/IEC 20000-1:2011 to the three recommended project phases.

It also provides:

a) examples of policies within the scope of the SMS;

b) examples of other useful templates that a service provider can use;

c) a list of specific implementation activities taking into consideration documentation and record management.

ISO/IEC TR 20000-5:2013 can be used with ISO/IEC 20000-2:2012 to provide a greater level of detail to support the project approach.

ISO/IEC TR 20000-5:2013 can also be used with ISO/IEC 20000-3:2012 to provide guidance on scope and applicability during initial project phases.

## 5.7 ISO/IEC TR 20000-9:2015 Guidance on the application of ISO/IEC 20000-1 to cloud services

### 5.7.1 Scope

ISO/IEC TR 20000-9:2015 provides guidance on the use of ISO/IEC 20000-1:2011 for service providers delivering cloud services. It is applicable to different categories of cloud service, such as those defined in ISO/IEC 17788/ITU-T Y.3500 and ISO/IEC 17789/ITU-T Y.3502, including, but not limited to, the following:

a) infrastructure as a service (IaaS);

b) platform as a service (PaaS);

c) software as a service (SaaS).

It is also applicable to public, private, community, and hybrid cloud deployment models.

### 5.7.2 Purpose

The guidance on the application of ISO/IEC 20000-1 to cloud services is presented as a set of scenarios that can address many of the typical activities of a cloud service provider. These scenarios describe the service lifecycle utilizing terminology and examples familiar to cloud service providers.

Each scenario includes references to the most relevant requirements specified by ISO/IEC 20000-1. Each scenario includes recommendations and examples of how the referenced clauses in ISO/IEC 20000-1 can be applicable to cloud services. All processes specified in ISO/IEC 20000-1 have been included in one or more of the scenarios.

### 5.7.3 Relationships with ISO/IEC 20000-1:2011

ISO/IEC TR 20000-9:2015 can be used as guidance for a cloud service provider in designing, managing, or improving an SMS to support cloud services.

ISO/IEC TR 20000-9:2015 does not add any requirements to those stated in ISO/IEC 20000-1 and does not state explicitly how evidence can be provided to an assessor or auditor.

# 6 Other related International Standards and Technical Reports

## 6.1 Closely related International Standards and Technical Reports

Three closely related International Standards and Technical Reports are described in terms of their scope, purpose and relationship with ISO/IEC 20000-1:

a) ISO/IEC TS 15504-8:2012, *Information technology — Process assessment — Part 8: An exemplar assessment model for IT service management*;

b) ISO/IEC 27013:—, *Information technology — Security techniques — Guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1*;

c) ISO/IEC TR 90006:2013, *Information technology — Guideline on the application of ISO 9001:2008 to IT service management and its integration with ISO/IEC 20000-1:2011*.

Other less closely related International Standards, which can be useful to support ISO/IEC 20000-1, are summarised in 6.5 of this part of ISO/IEC 20000.

## 6.2 ISO/IEC TS 15504-8:2012

### 6.2.1 Scope

ISO/IEC TS 15504-8:2012 is based on ISO/IEC TR 20000-4:2010. It:

a) defines an exemplar process assessment model (PAM) that supports the performance of an assessment by providing indicators for guidance on the interpretation of the process purposes and outcomes and of process attributes;

b) provides guidance, by example, on the definition, selection and use of assessment indicators.

### 6.2.2 Purpose

ISO/IEC TS 15504-8 provides a basis for performing an assessment of service management for an organization.

### 6.2.3 Relationships with ISO/IEC 20000-1:2011

The PAM can be used to support the implementation of ISO/IEC 20000-1:2011 by identifying the capability of processes. However, it is important to note that it is aligned to neither the 2005 nor the 2011 editions of ISO/IEC 20000-1, but to an earlier draft of ISO/IEC 20000-1. It is important to be aware of this when using ISO/IEC TS 15504-8:2012 to identify the capability of processes as part of designing and implementing an SMS. The outcome of the PAM is a capability assessment of each process defined in a combination of the PRM contained in ISO/IEC TR 20000-4:2010 and ISO/IEC TS 15504-8:2012, Annex B.

## 6.3 ISO/IEC 27013: —[3)]

### 6.3.1 Scope

ISO/IEC 27013:— provides guidance for organizations that are intending to either:

a) implement ISO/IEC 27001:2013 when ISO/IEC 20000-1:2011 is already adopted, or vice versa;

b) implement both ISO/IEC 27001:2013, Clause 3 and ISO/IEC 20000-1:2011 together;

c) align existing ISO/IEC 27001:2013, Clause 3 and ISO/IEC 20000-1:2011 management system implementations.

### 6.3.2 Purpose

ISO/IEC 27013:— can help organizations to implement an integrated management system which takes into account both the services provided and the protection of information.

### 6.3.3 Relationships with ISO/IEC 20000-1:2011

Information security management and service management are strongly interdependent and mutually reinforcing. They clearly address very similar processes and activities, even though each management system highlights different details.

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3) The second edition of ISO/IEC 27013 is expected to be published in 2015.

ISO/IEC 27013:— can be used to support the integrated implementation of ISO/IEC 20000-1:2011 and ISO/IEC 27001:2013 by identifying the overlapping areas between the two standards and helping to avoid duplication of effort. An outcome of using ISO/IEC 27013:— to support the integrated implementation of ISO/IEC 20000-1 and ISO/ IEC 27001:2013 can be to facilitate demonstration of conformity with both standards. Using ISO/IEC 27013:— can ensure that the organization understands differences in scope and terminology and that its information security management system (ISMS) and SMS and the integrated management system is based on the most efficient approach to both International Standards.

## 6.4 ISO/IEC TR 90006:2013

### 6.4.1 Scope

ISO/IEC TR 90006 provides guidance on the application of ISO 9001:2008 to IT service management and its integration with ISO/IEC 20000-1:2011. ISO/IEC TR 90006 can be used by:

a) auditors and assessors looking for guidelines on audits for ISO 9001:2008 with a scope that includes services and service management;

b) auditors and assessors looking for guidelines on integrated audits for ISO 9001:2008 and ISO/IEC 20000-1:2011 with a scope that includes services and service management;

c) organizations implementing a quality management system (QMS) with a scope that includes services and service management;

d) organizations implementing an integrated management system using the requirements of ISO 9001:2008 and ISO/IEC 20000-1:2011.

### 6.4.2 Purpose

ISO/IEC TR 90006:

a) provides guidelines for the application of ISO 9001:2008 to IT service management;

b) describes the similarities and differences between the requirements of ISO 9001:2008 and ISO/IEC 20000-1:2011;

c) supports the adoption and audit of management systems developed following the requirements of ISO 9001:2008 alone or of an integrated management system for both ISO 9001:2008 and ISO/IEC 20000-1:2011;

d) provides guidelines for the alignment and integration of a QMS and an SMS in organizations where services are being delivered to internal and/or external customers.

### 6.4.3 Relationships with ISO/IEC 20000-1:2011

Although the scope of ISO/IEC TR 90006 is limited to IT services, the scope of ISO/IEC 20000 and ISO 9001 are not limited to IT or IT services. ISO/IEC 20000-1:2011 specifies generic requirements that are applicable to all service providers, regardless of type, size and the nature of the services delivered.

ISO/IEC TR 90006 includes every clause in ISO 9001:2008, in the order provided in ISO 9001:2008. It compares the ISO 9001:2008 requirements against related requirements from ISO/IEC 20000-1:2011.

ISO/IEC TR 90006, Annex A and Annex B show a comparison of ISO 9001:2008 to ISO/IEC 20000-1:2011 and vice versa. ISO/IEC TR 90006, Annex C provides information to support the integration of a QMS and an SMS.

## 6.5 Supporting International Standards

### 6.5.1 General

There are other International Standards that can provide support to organizations using ISO/IEC 20000-1:2011. They are described in 6.5.2 to 6.5.9 of this part of ISO/IEC 20000.

### 6.5.2 ISO 9000:2005[4)]

ISO 9000:2005 describes fundamentals of a QMS which form the subject of the ISO 9000 family of standards and defines related terms.

The ISO 9000 family of standards distinguishes between requirements for a QMS and requirements for products. Products are split into 4 categories in ISO 9000:2005 services, software, hardware and processed material. Software and hardware as defined in ISO 9000:2005 include much more than computer software and hardware because the ISO 9000 family of standards can apply outside of services into areas such as manufacturing. ISO/IEC 20000-1:2011 applies purely to services and can refer to products if they are used as part of a service.

NOTE ISO 9000:2005 is being updated to align with the update of ISO 9001 and ISO requirements for consistent management system format, terms and text. It is likely to be published in 2015. The information above is valid for ISO 9000:2005.

### 6.5.3 ISO 9001:2008

ISO 9001:2008 specifies requirements for a QMS.

ISO 9001:2008 and ISO/IEC 20000-1:2011 both describe the requirements to design, implement and improve a management system for an organization. ISO/IEC 20000-1 is service focused and ISO 9001 is quality focused for products, which can include services.

The QMS specified in ISO 9001 and the SMS specified in ISO/IEC 20000-1 are both process based and closely linked to the PDCA methodology.

Many of the requirements in ISO/IEC 20000-1:2011, Clause 4 can be found in ISO 9001:2008, Clauses 4, 5 and 6.

The most closely related requirements specified in ISO 9001:2008 and ISO/IEC 20000-1:2011 pertain to:

a) management responsibility;

b) documentation management;

c) resource management;

d) internal audit;

e) management review.

If an organization is implementing a QMS based on ISO 9001:2008 and an SMS based on ISO/IEC 20000-1:2011, it should be aware that management of the common requirements using an integrated management system can reduce costs.

NOTE ISO 9001 is being updated to align with ISO requirements for consistent management system format, terms and text. It is likely to be published in 2015. The information above is valid for ISO 9001:2008.

4) See Bibliography for description of all standards included in this clause

### 6.5.4 ISO 10007:2003

ISO 10007:2003 provides guidance on the use of configuration management within an organization. It is applicable to the support of products from concept to disposal.

Configuration management in ISO 10007:2003 applies to products whereas configuration management in ISO/IEC 20000-1 applies to services.

Configuration management in ISO/IEC 20000-1:2011 specifies the requirements for technical and administrative direction over the life cycle of a configuration item (CI), its relationships and related configuration information such as status or attributes. ISO 10007:2003 covers the same configuration management concepts as in ISO/IEC 20000-1:2011, although it provides a more detailed definition of the concepts and includes additional guidance.

The change management process in ISO/IEC 20000-1:2011 includes the requirements for the management of changes to CIs and changes that can impact services or the customer. ISO 10007:2003 uses the term change control that overlaps with change management in ISO/IEC 20000-1:2011. The focus of the change control activity in ISO 10007:2003 is to control changes to products after the initial release of product configuration information.

Organizations can benefit by using both International Standards when defining, implementing or improving the configuration management process and the change management process.

### 6.5.5 ISO/IEC 19770-1:2012

ISO/IEC 19770-1:2012 establishes a baseline for an integrated set of processes for software asset management (SAM). The following forms of software assets are within the scope of ISO/IEC 19770-1:2012:

a) software use rights, reflected by full ownership (as for internally developed software) and licenses (as for most externally sourced software, whether commercial or open-source);

b) software for use, which contains the intellectual property value of software (including original software provided by software manufacturers and developers, software builds, and software as installed and otherwise provisioned, consumed or executed);

c) media holding copies of software for use.

ISO/IEC 19770-1:2012 is intended to align closely with and support ISO/IEC 20000-1:2011.

The life cycle process interfaces for SAM are largely aligned to the primary life cycle processes of ISO/IEC 12207:2008 in the context of SAM as well as to ISO/IEC 20000-1:2011. The objective of ISO/IEC 19770-1:2012 is to specify SAM requirements for these life cycle processes.

The life cycle process interfaces for SAM are closely connected with many processes in ISO/IEC 20000-1:2011. These interfaces include the processes which ensure that assets, including licences, used to deliver services are managed according to legal requirements.

### 6.5.6 ISO/IEC 27000:2014

ISO/IEC 27000:2014 provides an overview of the ISMS and of each standard in the ISO/IEC 27000 family of standards. It also defines the terms used in the ISO/IEC 27000 family of standards.

ISO/IEC 27000:2014 has a similar purpose to this part of ISO/IEC 20000, although the focus is information security management rather than service management.

ISO/IEC 27000:2014 provides definitions that differ from those given in ISO/IEC 20000-1:2011 for some terms, including availability, information security and risk. The definition of ‘information security incident’ is common for both ISO/IEC 27000:2014 and ISO/IEC 20000.

### 6.5.7 ISO/IEC 27001:2013

ISO/IEC 27001:2013 specifies the requirements for establishing, implementing, operating, monitoring, reviewing, maintaining and improving an ISMS within the context of the organization's overall business risks.

ISO/IEC 20000-1:2011 includes requirements for an information security management process. This is influenced by and compatible with the requirements specified in ISO/IEC 27001:2013.

Minor adjustments should be expected in an organization following both International Standards and details of these minor adjustments are highlighted in ISO/IEC 27013:—.

ISO/IEC 27001:2013, Annex A provides requirements as normative control objectives and controls. ISO/IEC 27001:2013, Annex A can support the fulfilment of the requirements of the information security management process in ISO/IEC 20000-1:2011.

### 6.5.8 ISO/IEC 27031:2011

ISO/IEC 27031:2011 describes the concepts and principles of information and communication technology (ICT) readiness for business continuity, and provides a framework of methods and processes to identify and specify all aspects (such as performance criteria, design, and implementation) for improving an organization's ICT readiness to ensure business continuity.

ISO/IEC 27031:2011 can be an asset for organizations involved in defining and implementing the ISO/IEC 20000:2011 service continuity and availability management processes as this standard details the relationship between business continuity management and the ICT readiness for business continuity. This contributes to ensuring the alignment between the business and the service provider.

### 6.5.9 ISO 31000:2009

ISO 31000:2009 provides principles and generic guidelines on risk management.

ISO/IEC 20000-1:2011 includes requirements for the service provider's top management to ensure that risks to services are assessed, managed and reviewed. ISO/IEC 20000-1:2011 does not specify requirements for a risk management process but instead requires an approach to risk management. ISO/IEC 20000-1:2011 also includes requirements for service providers to target risk reduction when improving services. This means managing risks to the activities of the processes used to deliver services, most specifically while assessing changes on CIs, processes or services, evaluating security risks and risks identified for service continuity.

ISO 31000:2009 can help service providers seeking to demonstrate conformity to ISO/IEC 20000-1:2011 by providing a better understanding of how to design a proper framework to manage risks.

### 6.5.10 ISO/IEC 38500:2015

ISO/IEC 38500:2015 provides guidance on the governance of the current and future use of IT within the organization. ISO/IEC 38500:2015 provides guidance principles for members of governing bodies of organizations (which can comprise owners, directors, partners, executive managers, or similar) on the effective, efficient, and acceptable use of IT within their organizations.

While ISO/IEC 38500:2015 and ISO/IEC 20000-1:2011 have different emphases, these International Standards are complimentary and can be mutually reinforcing.

ISO/IEC 20000-1:2011 is a management system standard that defines and provides the structure for an SMS. The SMS does not include comprehensive governance but ISO/IEC 20000-1:2011 does include requirements for management commitment and service management policies that facilitate management control. The adoption and application of the principles in ISO/IEC 38500:2015 can enhance and strengthen the benefits from use of ISO/IEC 20000-1:2011.

ISO/IEC 38500 is a principle based standard for governance of IT. By implementing the principles in an organization, a system is formed by which the use of IT is directed and controlled. The governing body govern the use of IT through the three tasks evaluate, direct and monitor. The tasks are carried out in a close cooperation between the governing body and management of the organization.

In addition to the ISO/IEC 38500 standard, the ISO/IEC TS 38501 Implementation guide provides guidance on how to implement arrangements for effective governance of IT within an organization. It identifies the key activities that an organization should undertake to implement governance of IT, in accordance with ISO/IEC 38500. The Technical Report ISO/IEC TR 38502 Framework and Model also provides guidance on the nature and mechanisms of governance and management together with the relationships between them, in the context of IT within an organization.

### 6.5.11 ISO 22301:2012

The ISO 22301:2012 standard specifies requirements to plan, establish, implement, operate, monitor, review, maintain and continually improve a documented management system to protect against, reduce the likelihood of occurrence, prepare for, respond to, and recover from disruptive incidents when they arise.

The requirements specified in ISO 22301:2012 are generic and can be easily integrated with other management systems requirements such as the ISO/IEC 20000-1. It can be particularly relevant to the service continuity and availability management process.

# Bibliography

[1] ISO/IEC 20000-1:2011, *Information technology — Service management — Part 1: Service management system requirements*

[2] ISO/IEC 20000-2:2012, *Information technology — Service management — Part 2: Guidance on the application of service management systems*

[3] ISO/IEC 20000-3:2012, *Information technology — Service management — Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1*

[4] ISO/IEC TR 20000-4:2010, *Information technology — Service management — Part 4: Process reference model*

[5] ISO/IEC TR 20000-5:2013, *Information technology — Service management — Part 5: Exemplar implementation plan for ISO/IEC 20000-1*

[6] ISO/IEC TR 20000-9:2015, *Information technology — Service management — Part 9: Guidance on the application of ISO/IEC 20000-1 to cloud services*

[7] ISO 9000:2005, *Quality management systems — Fundamentals and vocabulary*

[8] ISO 9001:2008, *Quality management systems — Requirements*

[9] ISO 10007:2003, *Quality management systems — Guidelines for configuration management*

[10] ISO/IEC TS 15504-8:2012, *Information technology — Process assessment — Part 8: An exemplar process assessment model for IT service management*

[11] ISO/IEC 19770-1:2012, *Information technology — Software asset management — Part 1: Processes and tiered assessment of conformance*

[12] ISO/IEC 12207:2008, *Systems and software engineering — Software life cycle processes*

[13] ISO 22301:2012, *Societal security — Business continuity management systems --- Requirements*

[14] ISO/IEC/IEEE 24765:2010, *Systems and software engineering — Vocabulary*

[15] ISO/IEC 27000:2009[5)], *Information technology — Security techniques — Information security management systems — Overview and vocabulary*

[16] ISO/IEC 27000:2014, *Information technology — Security techniques — Information security management systems — Overview and vocabulary*

[18] ISO/IEC 27001:2013, *Information technology — Security techniques — Information security management systems — Requirements*

[19] ISO/IEC 27013:—[6)], *Information technology — Security techniques — Guideline on the integrated implementation of ISO/IEC 20000-1 and ISO/IEC 27001*

[20] ISO/IEC 27031:2011, *Information technology — Security techniques — Guidelines for information and communication technology readiness for business continuity*

[21] ISO 31000:2009, *Risk management — Principles and guidelines*

[22] ISO/IEC 38500:2015, *Information technology — Governance of IT for the organization*

[23] ISO/IEC TS 38501:2015, *Information technology — Governance of IT — Implementation guide*

5) Withdrawn. Replaced by ISO/IEC 27000:2014.

6) Under development, expected to be republished in 2015.

[24] ISO/IEC TR 38502:2014, *Information technology — Governance of IT — Framework and model*

[25] ISO/IEC TR 90006:2013, *Information technology — Guidelines for the application of ISO 9001:2008 to IT service management and its integration with ISO/IEC 20000-1:2011*