
**Information technology — Service
management —**

**Part 1:
Service management system
requirements**

iTeh STANDARD PREVIEW
*Technologies de l'information — Gestion des services —
Partie 1: Exigences du système de gestion des services*
(standards.iteh.ai)

ISO/IEC 20000-1:2011

<https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011>

iTeh STANDARD PREVIEW (standards.iteh.ai)

ISO/IEC 20000-1:2011

<https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011>



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2011

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction.....	vii
1 Scope.....	1
1.1 General	1
1.2 Application	2
2 Normative references	2
3 Terms and definitions	3
4 Service management system general requirements	7
4.1 Management responsibility	7
4.1.1 Management commitment	7
4.1.2 Service management policy	8
4.1.3 Authority, responsibility and communication	8
4.1.4 Management representative	8
4.2 Governance of processes operated by other parties	8
4.3 Documentation management	9
4.3.1 Establish and maintain documents	9
4.3.2 Control of documents	9
4.3.3 Control of records	10
4.4 Resource management	10
4.4.1 Provision of resources	10
4.4.2 Human resources	10
4.5 Establish and improve the SMS	10
4.5.1 Define scope	10
4.5.2 Plan the SMS (Plan)	11
4.5.3 Implement and operate the SMS (Do).....	11
4.5.4 Monitor and review the SMS (Check)	11
4.5.5 Maintain and improve the SMS (Act)	13
5 Design and transition of new or changed services	13
5.1 General	13
5.2 Plan new or changed services	14
5.3 Design and development of new or changed services	14
5.4 Transition of new or changed services.....	15
6 Service delivery processes	15
6.1 Service level management	15
6.2 Service reporting	16
6.3 Service continuity and availability management	16
6.3.1 Service continuity and availability requirements.....	16
6.3.2 Service continuity and availability plans	16
6.3.3 Service continuity and availability monitoring and testing	17
6.4 Budgeting and accounting for services	17
6.5 Capacity management	18
6.6 Information security management.....	18
6.6.1 Information security policy	18
6.6.2 Information security controls.....	19
6.6.3 Information security changes and incidents.....	19
7 Relationship processes	19
7.1 Business relationship management.....	19
7.2 Supplier management.....	20
8 Resolution processes	21

8.1 Incident and service request management21
8.2 Problem management22
9 Control processes22
9.1 Configuration management22
9.2 Change management23
9.3 Release and deployment management24
Bibliography26

Figures

Figure 1 — PDCA methodology applied to service management viii
Figure 2 — Service management system.....2
Figure 3 — Example of supply chain relationships20

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/IEC 20000-1:2011](https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011)
<https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011>

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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 20000-1 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 7, *Software and systems engineering*. This second edition cancels and replaces the first edition (ISO/IEC 20000-1:2005), which has been technically revised. The main differences are as follows:

- closer alignment to ISO 9001; standards.iteh.ai
- closer alignment to ISO/IEC 27001; [ISO/IEC 20000-1:2011](http://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011)
- change of terminology to reflect international usage; <https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011>
- addition of many more definitions, updates to some definitions and removal of two definitions;
- introduction of the term “service management system”;
- combining Clauses 3 and 4 of ISO/IEC 20000-1:2005 to put all management system requirements into one clause;
- clarification of the requirements for the governance of processes operated by other parties;
- clarification of the requirements for defining the scope of the SMS;
- clarification that the PDCA methodology applies to the SMS, including the service management processes, and the services;
- introduction of new requirements for the design and transition of new or changed services.

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*¹⁾

1) To be published. (Technical revision of ISO/IEC 20000-2:2005.)

ISO/IEC 20000-1:2011(E)

- *Part 3: Guidance on scope definition and applicability of ISO/IEC 20000-1* [Technical Report]
- *Part 4: Process reference model* [Technical Report]
- *Part 5: Exemplar implementation plan for ISO/IEC 20000-1* [Technical Report]

A process assessment model for service management will form the subject of a future Part 8.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[ISO/IEC 20000-1:2011](https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcdf7b5e/iso-iec-20000-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcdf7b5e/iso-iec-20000-1-2011>

Introduction

The requirements in this part of ISO/IEC 20000 include the design, transition, delivery and improvement of services that fulfil service requirements and provide value for both the customer and the service provider. This part of ISO/IEC 20000 requires an integrated process approach when the service provider plans, establishes, implements, operates, monitors, reviews, maintains and improves a service management system (SMS).

Co-ordinated integration and implementation of an SMS provides ongoing control and opportunities for continual improvement, greater effectiveness and efficiency. The operation of processes as specified in this part of ISO/IEC 20000 requires personnel to be well organized and co-ordinated. Appropriate tools can be used to enable the processes to be effective and efficient.

The most effective service providers consider the impact on the SMS through all stages of the service lifecycle, from strategy through design, transition and operation, including continual improvement.

This part of ISO/IEC 20000 requires the application of the methodology known as “Plan-Do-Check-Act” (PDCA) to all parts of the SMS and the services. The PDCA methodology, as applied in this part of ISO/IEC 20000, can be briefly described as follows.

Plan: establishing, documenting and agreeing the SMS. The SMS includes the policies, objectives, plans and processes to fulfil the service requirements.

Do: implementing and operating the SMS for the design, transition, delivery and improvement of the services.

Check: monitoring, measuring and reviewing the SMS and the services against the policies, objectives, plans and service requirements and reporting the results.

Act: taking actions to continually improve performance of the SMS and the services.

When used within an SMS, the following are the most important aspects of an integrated process approach and the PDCA methodology:

- a) understanding and fulfilling the service requirements to achieve customer satisfaction;
- b) establishing the policy and objectives for service management;
- c) designing and delivering services based on the SMS that add value for the customer;
- d) monitoring, measuring and reviewing performance of the SMS and the services;
- e) continually improving the SMS and the services based on objective measurements.

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

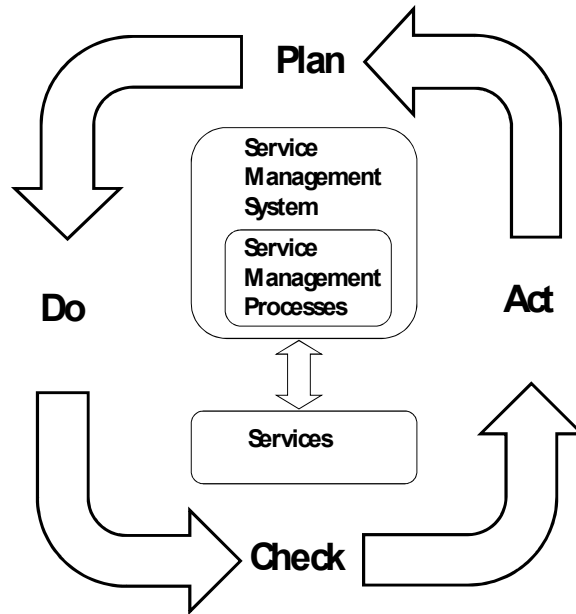


Figure 1 — PDCA methodology applied to service management

This part of ISO/IEC 20000 enables a service provider to integrate its SMS with other management systems in the service provider's organization. The adoption of an integrated process approach and the PDCA methodology enables the service provider to align or fully integrate multiple management system standards. For example, an SMS can be integrated with a quality management system based on ISO 9001 or an information security management system based on ISO/IEC 27001.

ISO/IEC 20000 is intentionally independent of specific guidance. The service provider can use a combination of generally accepted guidance and its own experience.

Users of an International Standard are responsible for its correct application. An International Standard does not purport to include all necessary statutory and regulatory requirements and contractual obligations of the service provider. Conformity to an International Standard does not of itself confer immunity from statutory and regulatory requirements.

For the purposes of research on service management standards, users are encouraged to share their views on ISO/IEC 20000-1 and their priorities for changes to the rest of the ISO/IEC 20000 series. Click on the link below to take part in the online survey.

<https://standards.iteh.ai/catalog/standards/sist/c818dc1-9a3e-4f03-9ceb-b594dc97b5e/iso-iec-20000-1-2011>

Information technology — Service management —

Part 1: Service management system requirements

1 Scope

1.1 General

This part of ISO/IEC 20000 is a service management system (SMS) standard. It 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. This part of ISO/IEC 20000 can be used by:

- a) an organization seeking services from service providers and requiring assurance that their service requirements will be fulfilled;
- b) an organization that requires a consistent approach by 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 and delivery 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 in this part of ISO/IEC 20000.

Figure 2 illustrates an SMS, including the service management processes. The service management processes and the relationships between the processes can be implemented in different ways by different service providers. The nature of the relationship between a service provider and the customer will influence how the service management processes are implemented.

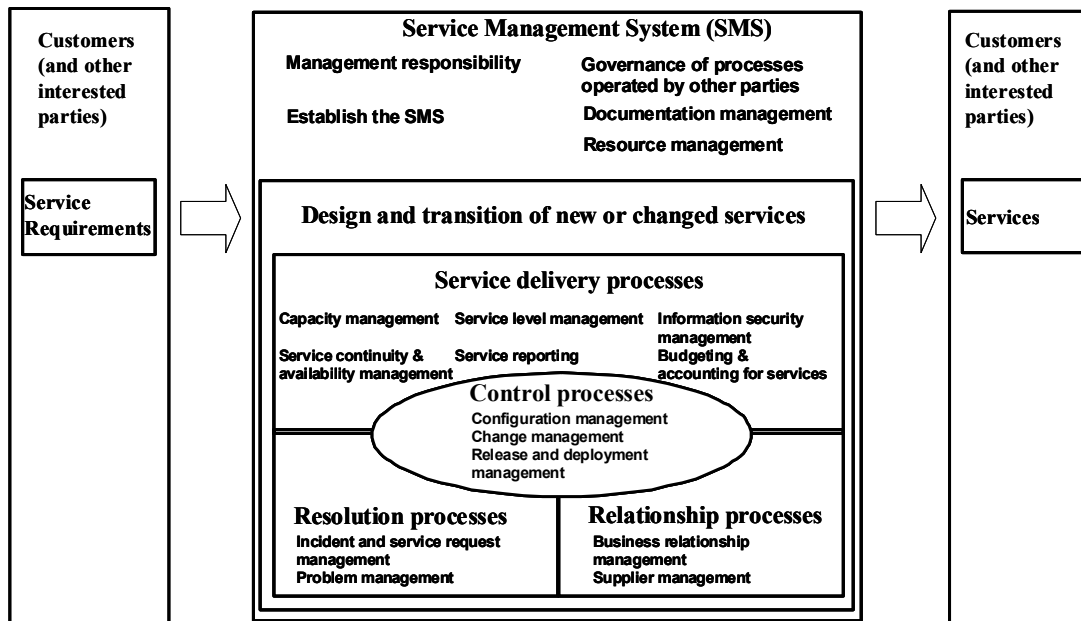


Figure 2 — Service management system

1.2 Application

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. Exclusion of any of the requirements in Clauses 4 to 9 is not acceptable when a service provider claims conformity to this part of ISO/IEC 20000, irrespective of the nature of the service provider's organization.

Conformity to the requirements in Clause 4 can only be demonstrated by a service provider showing evidence of fulfilling all of the requirements in Clause 4. A service provider cannot rely on evidence of the governance of processes operated by other parties for the requirements in Clause 4.

Conformity to the requirements in Clauses 5 to 9 can be demonstrated by the service provider showing evidence of fulfilling all requirements. Alternatively, the service provider can show evidence of fulfilling the majority of the requirements themselves and evidence of the governance of processes operated by other parties for those processes, or parts of processes, that the service provider does not operate directly.

The scope of this part of ISO/IEC 20000 excludes the specification for a product or tool. However, organizations can use this part of ISO/IEC 20000 to help them develop products or tools that support the operation of an SMS.

NOTE ISO/IEC TR 20000-3 provides guidance on scope definition and applicability of this part of ISO/IEC 20000. This includes further explanation about the governance of processes operated by other parties.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

No normative references are cited. This clause is included in order to ensure clause numbering is identical with ISO/IEC 20000-2:—, *Information technology — Service management — Part 2: Guidance on the application of service management systems*²⁾.

2) To be published.

3 Terms and definitions

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

3.1

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 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.

3.2

configuration baseline

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

NOTE 1 Configuration baselines, plus approved changes from those baselines, constitute the current configuration information.

NOTE 2 Adapted from ISO/IEC/IEEE 24765:2010.

3.3

configuration item

CI

element that needs to be controlled in order to deliver a service or services

3.4

configuration management database

CMDB

data store used to record attributes of configuration items, and the relationships between configuration items, throughout their lifecycle

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[ISO/IEC 20000-1:2011](https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcdf7b5e/iso-iec-20000-1-2011)

<https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcdf7b5e/iso-iec-20000-1-2011>

3.5

continual improvement

recurring activity to increase the ability to fulfil service requirements

NOTE Adapted from ISO 9000:2005.

3.6

corrective action

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

NOTE Adapted from ISO 9000:2005.

3.7

customer

organization or part of an organization that receives a service or services

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

NOTE 2 Adapted from ISO 9000:2005.

3.8

document

information and its supporting medium

[ISO 9000:2005]

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

ISO/IEC 20000-1:2011(E)

NOTE 1 The documentation can be in any form or type of medium.

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

3.9 effectiveness

extent to which planned activities are realized and planned results achieved

[ISO 9000:2005]

3.10 incident

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

3.11 information security

preservation of confidentiality, integrity and accessibility of information

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

NOTE 2 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.

NOTE 3 Adapted from ISO/IEC 27000:2009.

3.12 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

[ISO/IEC 27000:2009]

iteh STANDARD PREVIEW
(standards.iteh.ai)
<https://standards.iteh.ai/catalog/standards/sist/cf818dc1-9a3e-4f03-9ceb-6594dcd7b5e/iso-iec-20000-1-2011>

3.13 interested party

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

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

NOTE 1 A group can comprise an organization, a part thereof, or more than one organization.

NOTE 2 Adapted from ISO 9000:2005.

3.14 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 The internal group is outside the scope of the service provider's SMS.

3.15 known error

problem that has an identified root cause or a method of reducing or eliminating its impact on a service by working around it

3.16 nonconformity

non-fulfilment of a requirement