

Redline version
compares Third edition to
Second edition



Information technology — Service management —

Part 1: Service management system requirements

iTeh Standards *Technologies de l'information — Gestion des services —*
Partie 1: Exigences du système de management des services
[**\(https://standards.iteh.ai\)**](https://standards.iteh.ai)

Document Preview

[ISO/IEC 20000-1:2018](https://standards.iteh.ai/catalog/standards/iso/903ab242-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018)

<https://standards.iteh.ai/catalog/standards/iso/903ab242-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018>

IMPORTANT — PLEASE NOTE

This is a mark-up copy and uses the following colour coding:

Text example 1	— indicates added text (in green)
Text example 2	— indicates removed text (in red)
	— indicates added graphic figure
	— indicates removed graphic figure
1.x ...	— Heading numbers containing modifications are highlighted in yellow in the Table of Contents

iTeh Standards

DISCLAIMER

This Redline version provides you with a quick and easy way to compare the main changes between this edition of the standard and its previous edition. It doesn't capture all single changes such as punctuation but highlights the modifications providing customers with the most valuable information. Therefore it is important to note that this Redline version is not the official ISO standard and that the users must consult with the clean version of the standard, which is the official standard, for implementation purposes.



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2018

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

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

Published in Switzerland

Contents

	Page	
Foreword	vi	
Introduction	ix	
1 Scope	1	
1.1 General	1	
1.2 Application	2	
2 Normative references	3	
3 Terms and definitions	3	
3.1 Terms specific to management system standards	8	
3.2 Terms specific to service management	12	
4 Context of the organization	15	
4.1 Understanding the organization and its context	15	
4.2 Understanding the needs and expectations of interested parties	16	
4.3 Determining the scope of the service management system	16	
4.4 Service management system	16	
5 Leadership	16	
5.1 Leadership and commitment	16	
5.2 Policy	17	
5.2.1 Establishing the service management policy	17	
5.2.2 Communicating the service management policy	17	
5.3 Organizational roles, responsibilities and authorities	17	
4.6 Service management system general requirements	17	
4.16.1 Management responsibility	Actions to address risks and opportunities	17
4.1.1 Management commitment	17	
4.1.2 Service management policy	18	
4.1.3 Authority, responsibility and communication	18	
4.1.4 Management representative	18	
4.26.2 Governance of processes operated by other parties	Service management objectives and planning to achieve them	19
6.2.1 Establish objectives	19	
6.2.2 Plan to achieve objectives	20	
4.3 Documentation management	20	
4.3.1 Establish and maintain documents	20	
4.3.2 Control of documents	20	
4.3.3 Control of records	21	
4.4 Resource management	21	
4.4.1 Provision of resources	21	
4.4.2 Human resources	21	
4.56.3 Establish and improve the SMS	Plan the service management system	21
4.5.1 Define scope	21	
4.5.2 Plan the SMS (Plan)	22	
4.5.3 Implement and operate the SMS (Do)	22	
4.5.4 Monitor and review the SMS (Check)	22	
4.5.5 Maintain and improve the SMS (Act)	24	
5.7 Design and transition of new or changed services	Support of the service management system	25
5.1 General	25	
5.27.1 Plan new or changed services	Resources	25
5.37.2 Design and development of new or changed services	Competence	26
7.3 Awareness	27	
7.4 Communication	27	

7.5	Documented information.....	27
7.5.1	General.....	27
7.5.2	Creating and updating documented information.....	27
7.5.3	Control of documented information.....	28
7.5.4	Service management system documented information.....	28
5.4 7.6	Transition of new or changed services Knowledge	28
6	Service delivery processes.....	29
6.1	Service level management.....	29
6.2	Service reporting.....	29
6.3	Service continuity and availability management.....	30
6.3.1	Service continuity and availability requirements.....	30
6.3.2	Service continuity and availability plans.....	30
6.3.3	Service continuity and availability monitoring and testing.....	30
6.4	Budgeting and accounting for services.....	31
6.5	Capacity management.....	31
6.6	Information security management.....	32
6.6.1	Information security policy.....	32
6.6.2	Information security controls.....	32
6.6.3	Information security changes and incidents.....	32
7	Relationship processes.....	33
7.1	Business relationship management.....	33
7.2	Supplier management.....	33
8	Resolution processes.....	34
8.1	Incident and service request management.....	34
8.2	Problem management.....	35
9.8	Control processes Operation of the service management system	36
8.1	Operational planning and control.....	36
9.1 8.2	Configuration management Service portfolio	36
8.2.1	Service delivery.....	37
8.2.2	Plan the services.....	37
8.2.3	Control of parties involved in the service lifecycle.....	37
8.2.4	Service catalogue management.....	38
8.2.5	Asset management.....	38
8.2.6	Configuration management.....	38
8.3	Relationship and agreement.....	38
8.3.1	General.....	38
8.3.2	Business relationship management.....	39
8.3.3	Service level management.....	40
8.3.4	Supplier management.....	40
8.4	Supply and demand.....	41
8.4.1	Budgeting and accounting for services.....	41
8.4.2	Demand management.....	41
8.4.3	Capacity management.....	41
9.2 8.5	Change management Service design, build and transition	41
8.5.1	Change management.....	42
8.5.2	Service design and transition.....	43
8.5.3	Release and deployment management.....	44
9.3 8.6	Release and deployment management Resolution and fulfilment	45
8.6.1	Incident management.....	45
8.6.2	Service request management.....	46
8.6.3	Problem management.....	46
8.7	Service assurance.....	47
8.7.1	Service availability management.....	47
8.7.2	Service continuity management.....	47
8.7.3	Information security management.....	47

9	Performance evaluation	48
9.1	Monitoring, measurement, analysis and evaluation	48
9.2	Internal audit	49
9.3	Management review	49
9.4	Service reporting	50
10	Improvement	50
10.1	Nonconformity and corrective action	50
10.2	Continual improvement	51
	Bibliography	52

iTeh Standards

(<https://standards.iteh.ai>)

Document Preview

[ISO/IEC 20000-1:2018](#)

<https://standards.iteh.ai/catalog/standards/iso/903ab242-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018>

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~~ 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 ~~rules given in~~ editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

~~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. 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).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

Document Preview

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html

This document was prepared by ISO/IEC JTC 1, *Information technology, SC 40, IT Service Management and IT Governance*.

~~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~~^{third} edition cancels and replaces the ~~first~~^{second} edition (ISO/IEC 20000-1:2005/2011) which has been technically revised. The main differences are as follows.~~

The main changes compared to the previous edition are as follows.

- ~~— closer alignment to ISO 9001,~~
- ~~— a) closer alignment to ISO/IEC 27001, Restructured into the high level structure used for all management system standards (from Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives Part 1). This has introduced new common requirements for context of the organization, planning to achieve objectives and actions to address risks and opportunities. There are some common requirements that have updated previous requirements, for example, documented information, resources, competence and awareness.~~
- ~~— b) change of terminology to reflect international usage, Taken into account the growing trends in service management including topics such as the commoditisation of services, the management of multiple suppliers by an internal or external service integrator and the need to determine value of services for customers.~~

- c) Removed some of the detail to concentrate on what to do and allow organizations the freedom of how to meet the requirements.
- d) ~~addition of many more definitions, updates to some definitions and removal of two definitions~~ Included new features such as the addition of requirements about knowledge and planning the services.
- e) ~~introduction of the term “service management system”~~ Separated out clauses that were previously combined for incident management, service request management, service continuity management, service availability management, service level management, service catalogue management, capacity management, demand management.
- ~~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,~~
- f) ~~clarification of the requirements for defining the~~ Renamed “Governance of processes operated by other parties” to “Control of parties involved in the service lifecycle” and updated the requirements to include services and service components as well as processes. Clarified that the organization cannot demonstrate conformity to the requirements specified in this document if other parties are used to provide or operate all services, service components or processes within the ~~scope of the SMS~~, service management system (SMS).
- g) Separated **Clause 3** (Terms and definitions) into sub-clauses for management system terms and service management terms. There are many changes to definitions. The key changes include:
 - 1) some new terms have been added for Annex SL, e.g. “objective”, “policy”, and some have been added specifically for service management, e.g. “asset”, “user”;
 - 2) the term “service provider” has been replaced by “organization” to fit with the Annex SL common text;
 - 3) the term “internal group” has been replaced by “internal supplier” and the term “supplier” has been replaced by “external supplier”;
 - 4) the definition of “information security” has been aligned with ISO/IEC 27000. Subsequently the term “availability” has been replaced by “service availability” to differentiate from the term “availability” which is now used in the revised definition of “information security”.
- h) ~~clarification that the PDCA methodology applies to the SMS, including~~ Minimised the required documented information leaving only key documents such as the service management ~~processes, and the services~~, plan. Other documented information changes include:
 - 1) removed requirement for documented capacity plan and replaced with requirement to plan capacity;
 - 2) removed requirement for documented availability plan and replaced with requirement to document service availability requirements and targets;
 - 3) removed requirement for a configuration management database and replaced with requirements for configuration information;
 - 4) removed requirement for a release policy and replaced with a requirement to define release types and frequency;
 - 5) removed requirement for a continual improvement policy and replaced with a requirement to determine evaluation criteria for opportunities for improvement.
- i) Updated and renumbered Figures 2 and 3 to Figures 1 and 2. Removed Figure 1 and references to Plan-Do-Check-Act as this is not specifically used in Annex SL because many improvement methods can be used with management system standards.

— j) introduction of new requirements for the design and transition of new or changed services Moved detailed reporting requirements from the service reporting clause into the clauses where the reports are likely to be produced.

A list of all parts in the ISO/IEC 20000 series consists of the following parts, under the general title can be found on the Information technology — Service management ISO website.

— *Part 1. Service management system requirements*

— *Part 2. Guidance on the application of service management systems¹⁾*

— *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 6. Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

iTeh Standards

(<https://standards.iteh.ai>)

Document Preview

[ISO/IEC 20000-1:2018](https://standards.iteh.ai/catalog/standards/iso/903ab242-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018)

<https://standards.iteh.ai/catalog/standards/iso/903ab242-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018>

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

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 partThis document has been prepared to specify requirements for establishing, implementing, maintaining and continually improving a service management system (SMS). An SMS supports the management of the service lifecycle, including the planning, design, transition, delivery and improvement 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)services, which meet agreed requirements and deliver value for customers, users and the organization delivering the services.

The adoption of an SMS is a strategic decision for an organization and is influenced by the organization's objectives, the governing body, other parties involved in the service lifecycle and the need for effective and resilient services.

~~Co-ordinated integration and implementation~~ Implementation and operation of an SMS provides ongoing control and opportunities for visibility, control of services and continual improvement, leading to 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. Improvement for service management applies to the SMS and the services.

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. This document is intentionally independent of specific guidance. The organization can use a combination of generally accepted frameworks and its own experience. The requirements specified in this document align with commonly used improvement methodologies. Appropriate tools for service management can be used to support the SMS.

- 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 ISO/IEC 20000-2 the PDCA methodology can be applied to the SMS, including the service management processes provides guidance on the application of service management systems including examples of how to meet the requirements specified in [Clauses 5 to 9](#), and the services. Each element this document. ISO/IEC 20000-10 of the PDCA methodology is a vital part of a successful

implementation of an SMS provides information on all of the parts of the ISO/IEC 20000 series. The improvement process used in this part of, benefits, misperceptions and other related standards. ISO/IEC 20000 is based on the PDCA methodology. ISO/IEC 20000-10 lists the terms and definitions included in this document in addition to terms not used in this document but used in other parts of the ISO/IEC 20000 series.

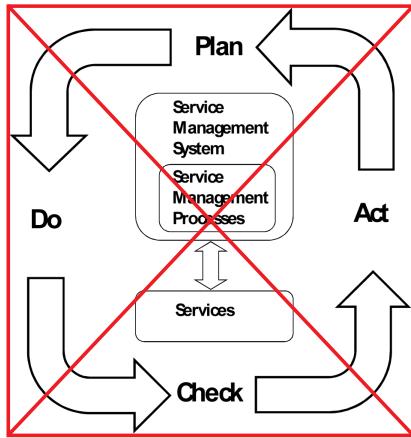


Figure 1 PDCA methodology applied to service management

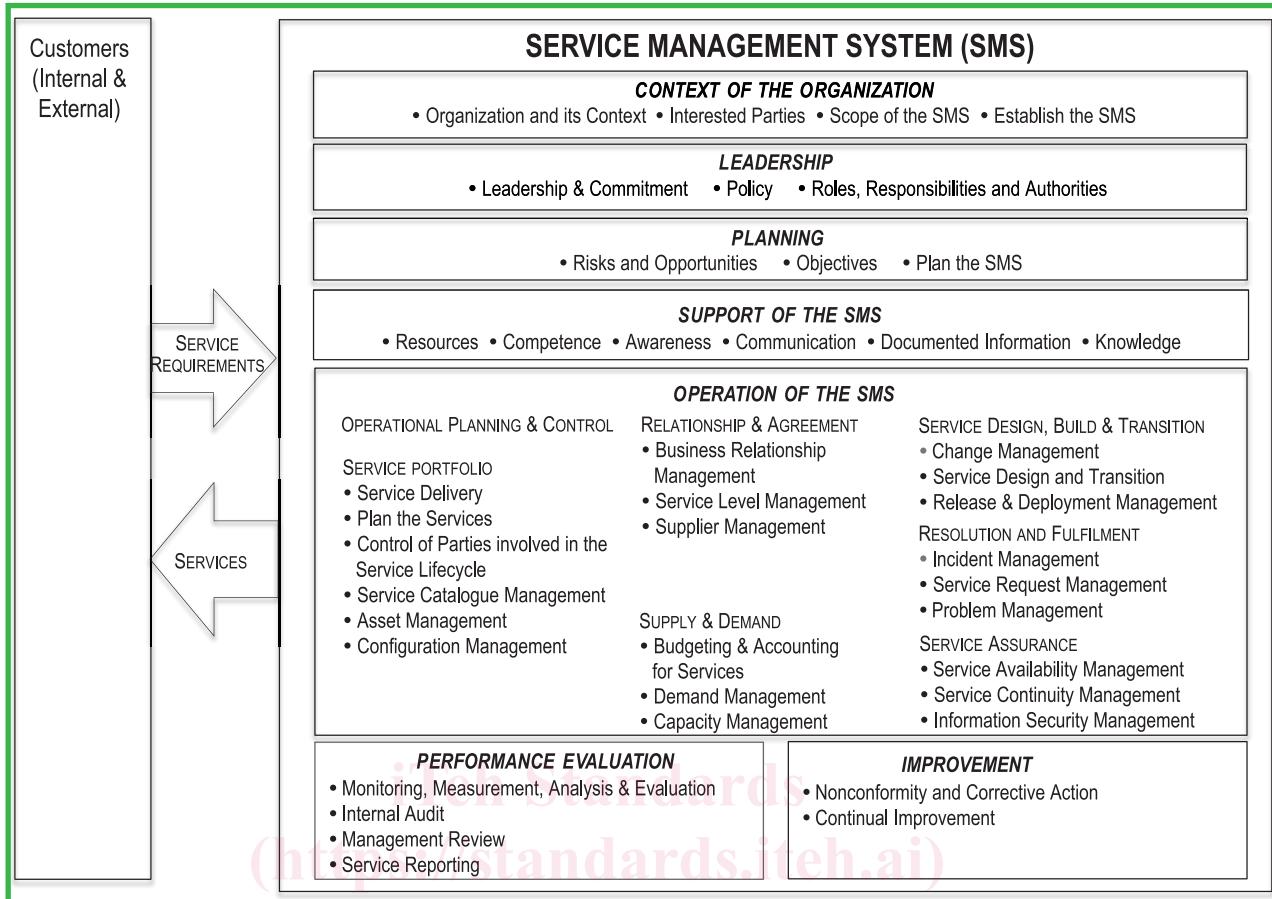
This part of the clause structure (i.e. clause sequence), terms in 3.1 and many of ISO/IEC 20000 enables a service provider to integrate its SMS with other management systems in the service provider's organization. The requirements are taken from Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives Part 1, known as the common high level structure (HLS) for management system standards. 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. ISO/IEC 20000-1:2018

Users of Figure 1 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. This illustrates an SMS showing the clause content of this document. It does not represent a structural hierarchy, sequence or authority levels. There is no requirement in this document for its structure to be applied to an organization's SMS. There is no requirement for the terms used by an organization to be replaced by the terms used in this document. Organizations can choose to use terms that suit their operations.

For the purposes of research on service management standards, users are encouraged to share their views on the structure of clauses. The structure of clauses is intended to provide a coherent presentation of requirements, ISO/IEC 20000-1 and their priorities for changes to the rest of the standard rather than a model for documenting an organization's policies, objectives and processes. Each organization can choose how to combine the ISO/IEC 20000 series. Click on the link below to take part in the online survey. The relationship between each organization and its customers, users and other interested parties influences how the processes are implemented. However, an SMS as designed by an organization, cannot exclude any of the requirements specified in this document.

[ISO/IEC 20000-1 online survey](#)



Document Preview

Figure 1 — Service management system

[ISO/IEC 20000-1:2018](#)

<https://standards.iteh.ai/catalog/standards/iso/903ab242-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018>

Information technology — Service management —

Part 1: Service management system requirements

1 Scope

1.1 General

This ~~part of ISO/IEC 20000-1~~ is document specifies requirements for an organization to establish, implement, maintain and continually improve 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. The requirements specified in this document include the planning, design, transition, delivery and improvement of services to ~~fulfil~~ meet the service requirements and deliver value. This ~~part of ISO/IEC 20000-1~~ document can be used by:

- a) ~~an organization~~ ~~a customer~~ seeking services ~~from service providers~~ and requiring assurance that ~~their service requirements will be fulfilled~~ regarding the quality of those services;
- b) ~~an organization that requires~~ ~~a customer requiring~~ a consistent approach to the service lifecycle by all its service providers, including those in a supply chain;
- c) ~~a service provider that intends~~ ~~an organization~~ to demonstrate its capability for the planning, design, transition, delivery and improvement of services ~~that fulfil service requirements~~;
- d) ~~a service provider~~ ~~an organization~~ to monitor, measure and review its ~~service management processes and~~ SMS and the services;
- e) ~~an organization~~ to improve the planning, design, transition and delivery, 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 in this part of~~ ~~organization or other party performing conformity assessments against the requirements specified in this ISO/IEC 20000-1~~ document;
- g) a provider of training or advice in service management.

~~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.~~ The term "service" as used in this document refers to the service or services in the scope of the SMS. The term "organization" as used in this document refers to the organization in the scope of the SMS that manages and delivers services to customers. The organization in the scope of the SMS can be part of a larger organization, for example, a department of a large corporation. An organization or part of an organization that manages and delivers a service or services to internal or external customers can also be known as a service provider. Any use of the terms "service" or "organization" with a different intent is distinguished clearly in this document.

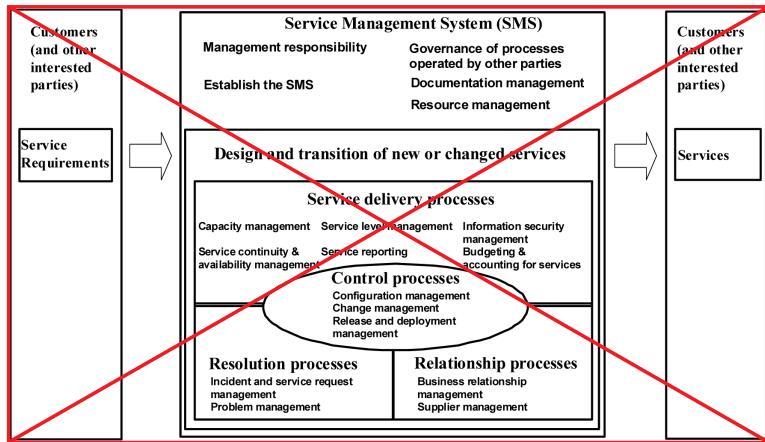


Figure 2 – Service management system

1.2 Application

All requirements specified in this part of ISO/IEC 20000 document are generic and are intended to be applicable to all service providers organizations, regardless of type, size and the organization's type or size, or the nature of the services delivered. Exclusion of any of the requirements in Clauses 4 to 910 is not acceptable when a service provider the organization claims conformity to this part of ISO/IEC 20000 document, irrespective of the nature of the service provider's organization.

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

The organization itself demonstrates conformity to Clauses 4 and 5. However, the organization can be supported by other parties. For example, another party can conduct internal audits on behalf of the organization or support the preparation of the SMS. 42-c4e0-41ca-b2fb-a5cbac49ea20/iso-iec-20000-1-2018

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 organization can show evidence of fulfilling the majority of the requirements themselves and retaining accountability for the requirements specified in this document and demonstrating control when other parties are involved in meeting the requirements in Clauses 6 to 10 (see 8.2.3 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). For example, the organization can demonstrate evidence of controls for another party who is providing infrastructure service components or operating the service desk including the incident management process.

The organization cannot demonstrate conformity to the requirements specified in this document if other parties are used to provide or operate all services, service components or processes within the scope of the SMS.

The scope of this part of ISO/IEC 20000 document excludes the specification for a product or tool products or tools. However, organizations can use this part of this ISO/IEC 20000 to help them develop document can be used to help the development or acquisition of 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.