INTERNATIONAL STANDARD

ISO/IEC 20000-2

Third edition
2019-08

Information technology — Service management —

Part 2: Guidance on the application of service management systems

Technologies de l'information — Gestion des services —

Partie 2: Directives relatives à l'application des systèmes de management des services



Reference number
ISO/IEC 20000-2:2019(E)

© ISO/IEC 2019



COPYRIGHT PROTECTED DOCUMENT

© ISO/IEC 2019

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 ... **vii**

1 Scope ... **1**
1.1 General ... 1
1.2 Application ... 2
1.3 Structure ... 2

2 Normative references ... **3**

3 Terms and definitions ... **3**

4 Context of the organization ... **3**
4.1 Understanding the organization and its context ... 3
4.1.1 Required activities ... 3
4.1.2 Explanation ... 3
4.1.3 Other information ... 4
4.2 Understanding the needs and expectations of interested parties ... 4
4.2.1 Required activities ... 4
4.2.2 Explanation ... 4
4.2.3 Other information ... 4
4.3 Determining the scope of the service management system ... 5
4.3.1 Required activities ... 5
4.3.2 Explanation ... 5
4.3.3 Other information ... 5
4.4 Service management system ... 5
4.4.1 Required activities ... 5
4.4.2 Explanation ... 5
4.4.3 Other information ... 6

5 Leadership ... **6**
5.1 Leadership and commitment ... 6
5.1.1 Required activities ... 6
5.1.2 Explanation ... 6
5.1.3 Other information ... 7
5.2 Policy ... 8
5.2.1 Required activities ... 8
5.2.2 Explanation ... 8
5.2.3 Other information ... 9
5.3 Organizational roles, responsibilities, and authorities ... 9
5.3.1 Required activities ... 9
5.3.2 Explanation ... 9
5.3.3 Other information ... 9

6 Planning ... **10**
6.1 Actions to address risks and opportunities ... 10
6.1.1 Required activities ... 10
6.1.2 Explanation ... 10
6.1.3 Other information ... 11
6.2 Service management objectives and planning to achieve them ... 11
6.2.1 Required activities ... 11
6.2.2 Explanation ... 11
6.2.3 Other information ... 11
6.3 Plan the service management system ... 12
6.3.1 Required activities ... 12
6.3.2 Explanation ... 12
6.3.3 Other information ... 13

7 Support of the service management system ... **13**

© ISO/IEC 2019 – All rights reserved

7.1 Resources 13
7.1.1 Required activities 13
7.1.2 Explanation 13
7.1.3 Other information 14
7.2 Competence 14
7.2.1 Required activities 14
7.2.2 Explanation 14
7.2.3 Other information 15
7.3 Awareness 15
7.3.1 Required activities 15
7.3.2 Explanation 15
7.3.3 Other information 15
7.4 Communication 16
7.4.1 Required activities 16
7.4.2 Explanation 16
7.4.3 Other information 16
7.5 Documented information 17
7.5.1 General 17
7.5.2 Creating and updating documented information 17
7.5.3 Control of documented information 18
7.5.4 Service management system documented information 19
7.6 Knowledge 20
7.6.1 Required activities 20
7.6.2 Explanation 20
7.6.3 Other information 21

8 Operation of the service management system 21
8.1 Operational planning and control 21
8.1.1 Required activities 21
8.1.2 Explanation 21
8.1.3 Other information 22
8.2 Service portfolio 22
8.2.1 Service delivery 22
8.2.2 Plan the services 23
8.2.3 Control of parties involved in the service lifecycle 24
8.2.4 Service catalogue management 25
8.2.5 Asset management 27
8.2.6 Configuration management 28
8.3 Relationship and agreement 29
8.3.1 General 29
8.3.2 Business relationship management 30
8.3.3 Service level management 32
8.3.4 Supplier management 33
8.4 Supply and demand 35
8.4.1 Budgeting and accounting for services 35
8.4.2 Demand management 36
8.4.3 Capacity management 37
8.5 Service design, build and transition 38
8.5.1 Change management 38
8.5.2 Service design and transition 41
8.5.3 Release and deployment management 44
8.6 Resolution and fulfilment 46
8.6.1 Incident management 46
8.6.2 Service request management 47
8.6.3 Problem management 48
8.7 Service assurance 49
8.7.1 Service availability management 49
8.7.2 Service continuity management 50
8.7.3 Information security management 51

 © ISO/IEC 2019 – All rights reserved

9 Performance evaluation **53**
9.1 Monitoring, measurement, analysis, and evaluation 53
9.1.1 Required activities 53
9.1.2 Explanation 53
9.1.3 Other information 53
9.2 Internal audit 53
9.2.1 Required activities 53
9.2.2 Explanation 53
9.2.3 Other information 54
9.3 Management review 54
9.3.1 Required activities 54
9.3.2 Explanation 54
9.3.3 Other information 55
9.4 Service reporting 55
9.4.1 Required activities 55
9.4.2 Explanation 55
9.4.3 Other information 55

10 Improvement **56**
10.1 Nonconformity and corrective action 56
10.1.1 Required activities 56
10.1.2 Explanation 56
10.1.3 Other information 56
10.2 Continual improvement 56
10.2.1 Required activities 56
10.2.2 Explanation 57
10.2.3 Other information 57

Annex A (informative) **Mandatory documented information in ISO/IEC 20000-1:2018** **58**

Bibliography **63**

© ISO/IEC 2019 – All rights reserved

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.

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) or the IEC list of patent declarations received (see http://patents.iec.ch).

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

For an explanation of 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 www.iso.org/iso/foreword.html.

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

This third edition cancels and replaces the second edition (ISO/IEC 20000-2:2012), which has been technically revised.

The main changes from the previous edition are as follows:

a) updated to align with ISO/IEC 20000-1:2018;

b) improved consistency and clarity of guidance for each clause with these consistent elements: Required activities, Explanation (which includes purpose statement), and Other information (which includes guidance on documented information and roles and authorities);

c) added an Annex (Annex A) that compiles all of the mandatory documented information called for in ISO/IEC 20000-1.

A list of all parts in the ISO/IEC 20000 series can be found on the ISO website.

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.

© ISO/IEC 2019 – All rights reserved

Introduction

This document provides guidance 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 services, which fulfil 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. The guidance in this document aligns with ISO/IEC 20000-1:2018. This document (ISO/IEC 20000-2) is intentionally independent of guidance for the management of any specific type of service. The organization can use a combination of generally accepted frameworks and its own experience. Improvement for service management can use common improvement methodologies and apply them to the SMS and the services. Appropriate tools for service management can be used to support the SMS. Implementation and operation of an SMS provides ongoing visibility, control of services, and continual improvement, leading to greater effectiveness and efficiency. Improvement for service management applies to the SMS and the services.

The clause structure in this document (i.e. clause numbering and sequence) aligns with ISO/IEC 20000-1:2018 and the terms used in this document align with ISO/IEC 20000-1:2018 and ISO/IEC 20000-10:2018.

© ISO/IEC 2019 – All rights reserved

Information technology — Service management —

Part 2:
Guidance on the application of service management systems

1 Scope

1.1 General

This document provides guidance on the application of a service management system (SMS) based on ISO/IEC 20000-1. It provides examples and recommendations to enable organizations to interpret and apply ISO/IEC 20000-1, including references to other parts of ISO/IEC 20000 and other relevant standards.

Figure 1 illustrates an SMS with the clause content of ISO/IEC 20000-1. It does not represent a structural hierarchy, sequence, or authority levels.

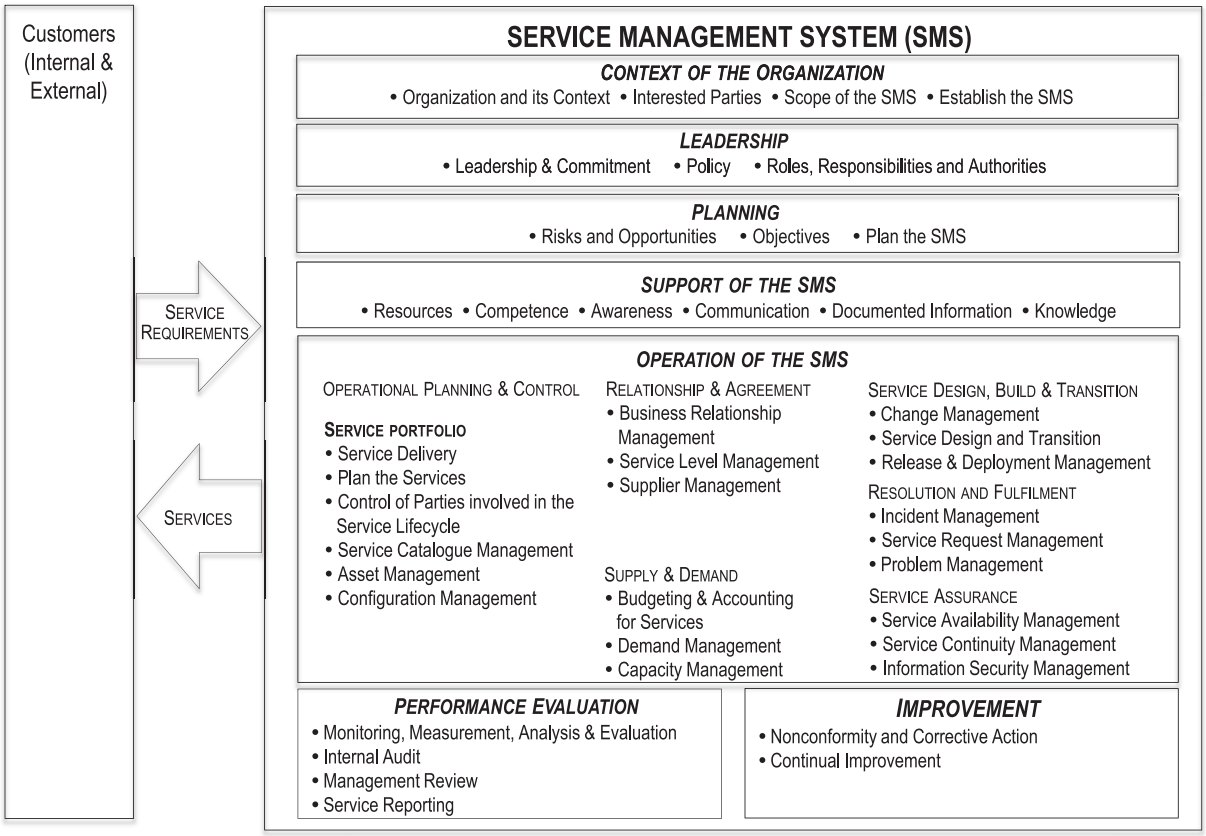


Figure 1 — Service management system

The structure of clauses is intended to provide a coherent presentation of requirements, rather than a model for documenting an organization's policies, objectives, and processes. Each organization can choose how to combine the requirements into processes. 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 ISO/IEC 20000-1.

© ISO/IEC 2019 – All rights reserved

The term ‘service’ as used in this document refers to the 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. The organization in the scope of the SMS can be part of a larger organization, for example an IT department of a large corporation. The organization manages and delivers services to customers and can also be referred to as a service provider. Any use of the terms ‘service’ or ’organization’ with a different intent is distinguished clearly in this document. The term ‘delivered’, as used in this document, can be interpreted as all of the service lifecycle activities that are performed in addition to daily operational activities. Service lifecycle activities include planning, design, transition, delivery, and improvement.

1.2 Application

The guidance in this document is generic and is intended to be applicable to any organization applying an SMS, regardless of the organization's type or size, or the nature of the services delivered. While it can be used ‘regardless of the organization’s type or size, or the nature of the services delivered’, ISO/IEC 20000-1 has its roots in IT. It is intended for service management of services using technology and digital information. The examples given in this document illustrate a variety of uses of ISO/IEC 20000-1.

The service provider is accountable for the SMS and therefore cannot ask another party to fulfil the requirements of ISO/IEC 20000-1:2018, Clauses 4 and 5. For example, the organization cannot ask another party to provide the top management and demonstrate top management commitment or to demonstrate the control of parties involved in the service lifecycle.

Some activities in ISO/IEC 20000-1:2018, Clauses 4 and 5 can be performed by another party under the management of the organization. For example, an organization can ask another party to create the initial service management plan as a key document for the SMS. The plan, once created and agreed, is the direct responsibility of and is maintained by the organization. In these examples, the organization is using other parties for specific short-term activities. The organization has accountability, authorities, and responsibility for the SMS. The organization can therefore demonstrate evidence of fulfilling all of the requirements of ISO/IEC 20000-1:2018, Clauses 4 and 5.

For ISO/IEC 20000-1:2018, Clauses 6 to 10, an organization can show evidence of meeting all of the requirements itself. Alternatively, an organization can show evidence of retaining accountability for the requirements when other parties are involved in meeting the requirements in ISO/IEC 20000-1:2018, Clauses 6 to 10. Control of other parties involved in the service lifecycle can be demonstrated by the organization (see 8.2.3). 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 in ISO/IEC 20000-1 if other parties are used to provide or operate *all* services, service components, or processes within the scope of the SMS. However, if other parties provide or operate only *some of* the services, service components, or processes, the organization can normally demonstrate evidence of meeting the requirements specified in ISO/IEC 20000-1.

The scope of this document excludes the specification of products or tools. However, ISO/IEC 20000-1 and this document can be used to help with the development or acquisition of products or tools that support the operation of an SMS.

1.3 Structure

This document follows the clauses in ISO/IEC 20000-1 and, from Clause 4 onwards, provides three sections per clause or sub-clause:

a) *Required activities*: a summary of the activities required by this clause in ISO/IEC 20000-1 Note that this summary does not replicate the requirement statements in ISO/IEC 20000-1 or add new requirements, but simply describes the activities;

© ISO/IEC 2019 – All rights reserved

b) *Explanation*: an explanation of the purpose of the clause and practical guidance on clause contents, including examples and recommendations on how to implement the requirements of ISO/IEC 20000-1. When relevant, it refers to other parts of ISO/IEC 20000 and other relevant standards;

c) *Other information*: guidance on roles and responsibilities and on documented information supporting the implementation of an SMS. Further relevant information can also be included.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO/IEC 20000-10, *Information technology — Service management — Part 10: Concepts and vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 20000-10 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at http://www.iso.org/obp

4 Context of the organization

4.1 Understanding the organization and its context

4.1.1 Required activities

The organization determines external and internal issues relevant to its purpose and affecting its ability to achieve the intended outcomes of the SMS.

4.1.2 Explanation

The purpose of this required activity is to set the context by determining those issues that are relevant to the organization's purpose and influence its ability to achieve the intended outcomes of the SMS. These outcomes include the delivery of value to its customers. Issues can vary, e.g. internal or external, positive or negative. All issues taken together provide the basic context in which the organization establishes its SMS.

NOTE The word 'issue' in this context can be factors or attributes that have a positive or negative impact. These are important topics, factors, or attributes for the organization in the context of its ability to deliver services of an agreed quality to its customers.

To implement an SMS successfully, the organization identifies and documents its internal and external context. Context includes the nature of the organization itself, the needs and expectations of other interested parties that have a stake in the SMS, and the scope of the SMS itself. Based on an understanding of these issues, the SMS can be established.

Early in the planning stage, the organization should establish how ISO/IEC 20000-1 is applicable to the organization's context, so that the initial scope of the SMS can be documented. Failing to identify the context, interested parties, and scope can lead to an unsuccessful or inefficient SMS.

© ISO/IEC 2019 – All rights reserved