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**Information technology — Service  
management —**

**Part 11:  
Guidance on the relationship  
between ISO/IEC 20000-1 and service  
management frameworks: ITIL®**

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

*Partie 11: Recommandations sur la relation entre l'ISO/IEC 20000-1  
et les référentiels de gestion de service: ITIL®*

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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.

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](http://www.iso.org/directives) or [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs)).

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](http://www.iso.org/patents)) or the IEC list of patent declarations received (see [patents.iec.ch](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](http://www.iso.org/iso/foreword.html). In the IEC, see [www.iec.ch/understanding-standards](http://www.iec.ch/understanding-standards).

This document was prepared by Joint Technical Committee 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 20000-11:2015), which has been technically revised.

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

- Updates based on the release of ISO/IEC 20000-1:2018;
- Updates based on the release of ITIL 4.

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

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](http://www.iso.org/members.html) and [www.iec.ch/national-committees](http://www.iec.ch/national-committees).

## Introduction

This document can assist readers in relating the requirements specified in ISO/IEC 20000-1 to guidance in one of the most commonly used service management frameworks, ITIL<sup>1)</sup>. Organizations can refer to this guidance as a cross-reference to help them plan and implement a service management system (SMS).

ISO/IEC 20000-1 specifies requirements for an information technology service management system. ISO/IEC 20000-1 can be used in different ways, including:

- a) as a source of requirements for organizations on the planning, design, transition, delivery and improvement of services and service management capabilities;
- b) to establish a consistent approach for an organization and all other parties involved in the service lifecycle;
- c) as a basis to assess, measure and report an organization's service provision and service management capabilities;
- d) as a set of criteria for audit and assessment of an organization's SMS, including service management processes.

ISO/IEC 20000-1 specifies an integrated process approach when the organization establishes, implements, maintains and continually improves a service management system (SMS). The services can be delivered to internal or external customers or a combination of both. Other parts of the ISO/IEC 20000 series provide supporting guidance.

ITIL is introduced in the *ITIL® Foundation – ITIL 4 Edition* publication as:

*“ITIL has led the ITSM industry with guidance, training and certification (qualifications) programmes for more than 30 years. ITIL 4 brings ITIL up to date by reshaping most of the established ITSM (IT service management) practices in the wider context of customer experience, value streams, and digital transformation, as well as embracing new ways of working, such as Lean, Agile and DevOps.”*

*“ITIL 4 provides the guidance organizations need to address new service management challenges and utilize the potential of modern technology. It is designed to use a flexible, coordinated and integrated system for the effective governance and management of IT-enabled services.”*

AXELOS has agreed on the development of this document. ITIL, including the ITIL manuals, is owned by AXELOS.

Organizations can implement and improve their SMS using the requirements specified in ISO/IEC 20000-1, the guidance in the other parts of the ISO/IEC 20000 series and ITIL. Both the ISO/IEC 20000 series and ITIL provide guidance to plan, design, transition, deliver and improve services that create value to the business and its customers. An organization can adopt ITIL guidance to support the management of their services in alignment with the requirements specified in ISO/IEC 20000-1. Other guidance can also be used to support ISO/IEC 20000-1.

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# Information technology — Service management —

## Part 11:

# Guidance on the relationship between ISO/IEC 20000-1 and service management frameworks: ITIL®

## 1 Scope

This document provides guidance on the relationship between ISO/IEC 20000-1 and a commonly used service management framework, ITIL 4. It can be used by any organization or person wishing to understand how ITIL can be used with ISO/IEC 20000-1, including:

- a) an organization that has claimed or demonstrated or intends to claim or demonstrate conformity to the requirements specified in ISO/IEC 20000-1 and is seeking guidance on the use of ITIL to establish and improve an SMS and the services;
- b) an organization that already uses ITIL and is seeking guidance on how ITIL can be used to support efforts to demonstrate conformity to the requirements specified in ISO/IEC 20000-1;
- c) an assessor or auditor who wishes to understand the use of ITIL as a support in achieving the requirements specified in ISO/IEC 20000-1.

[Clause 4](#) describes how ITIL can support the demonstration of conformity to ISO/IEC 20000-1. [Clause 5](#) correlates the ITIL documents to requirements in ISO/IEC 20000-1. The tables in [Annex A](#) correlate terms and clauses in ISO/IEC 20000-1 to ITIL and vice versa; the tables in [Annex B](#) correlate clauses in ISO/IEC 20000-1 to the ITIL 4 publications and vice versa.

## 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 20000-1:2018, *Information technology — Service management — Part 1: Service management system requirements*

## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO/IEC 20000-1 apply.

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

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

## 4 ISO/IEC 20000-1 and ITIL 4

### 4.1 Introduction to ISO/IEC 20000-1

ISO/IEC 20000-1 specifies 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 services, which meet agreed requirements and deliver value for customers, users and the organization delivering the services. The organization in the scope of the SMS can be a whole or part of a larger organization and can also be known as the service provider.

ISO/IEC 20000-1 is intentionally independent of specific guidance. The organization can use a combination of generally accepted frameworks (e.g. ITIL) and its own experience. Appropriate tools for service management can be used to support the SMS.

All requirements specified in ISO/IEC 20000-1 are generic and are intended to be applicable to all organizations, 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.

Exclusion of any of the requirements in ISO/IEC 20000-1:2018, Clauses 4 to 10, is not acceptable when the organization claims conformity to ISO/IEC 20000-1, irrespective of the nature of the organization.

The organization cannot demonstrate conformity to the requirements specified 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.

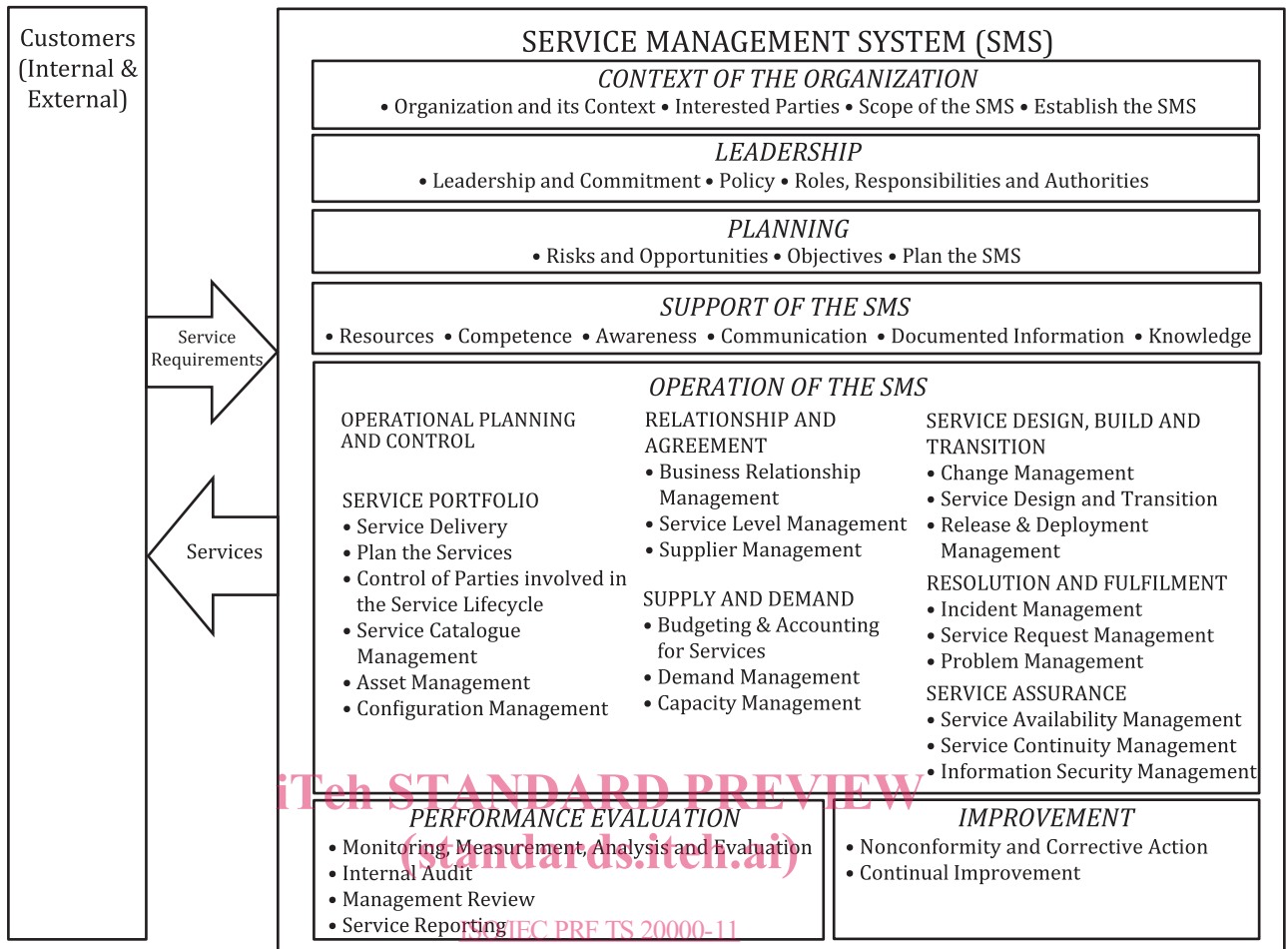
ISO/IEC 20000-10 includes the concepts for an SMS, the vocabulary used for the ISO/IEC 20000 series, a description of each part of the series and related standards. The vocabulary is split into subclause 3.1 for terms common to management system standards, subclause 3.2 for terms specific to service management used in ISO/IEC 20000-1 and subclause 3.3 for terms used in the rest of the ISO/IEC 20000 series. Subclauses 3.1 and 3.2 are the same as in ISO/IEC 20000-1.

Guidance is available in other parts of the ISO/IEC 20000 series in the form of :

- ISO/IEC 20000-2 (Guidance on the application of service management systems),
- ISO/IEC 20000-3 (Guidance on scope definition and applicability of ISO/IEC 20000-1),
- ISO/IEC 20000-5 (Exemplar implementation plan for ISO/IEC 20000-1),
- ISO/IEC 20000-6 (Requirements for bodies providing audit and certification of service management systems) and
- ISO/IEC 20000-7 (Guidance on the Integration and Correlation of ISO/IEC 20000-1:2018 to ISO 9001:2015 and ISO/IEC 27001:2013).

[Figure 1](#) illustrates an SMS showing the clause content of ISO/IEC 20000-1.





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Figure 1 — Service management system

## 4.2 Introduction to ITIL 4

### 4.2.1 General

ITIL 4 was published by AXELOS in 2019 as an evolution of previous versions. ITIL 4 has a new architecture and scope. It aims to connect various approaches to the management of digital technology into a holistic and comprehensive framework to address IT service management.

The key components of the ITIL 4 framework are the four dimensions model and the ITIL service value system.

### 4.2.2 The four dimensions model

To support a holistic approach to service management, ITIL defines four dimensions that collectively are critical to the effective and efficient delivery of value for customers and other stakeholders in the form of products and services. The four dimensions are:

- **Organizations and people:** define the way an organization is managed, the roles and responsibilities and authorities, and communication;
- **Information and technology:** define the information and knowledge necessary for the management of services and the technologies required;
- **Partners and suppliers:** define an organization’s relationships with other organizations that are involved in the services, including contracts and other agreements;

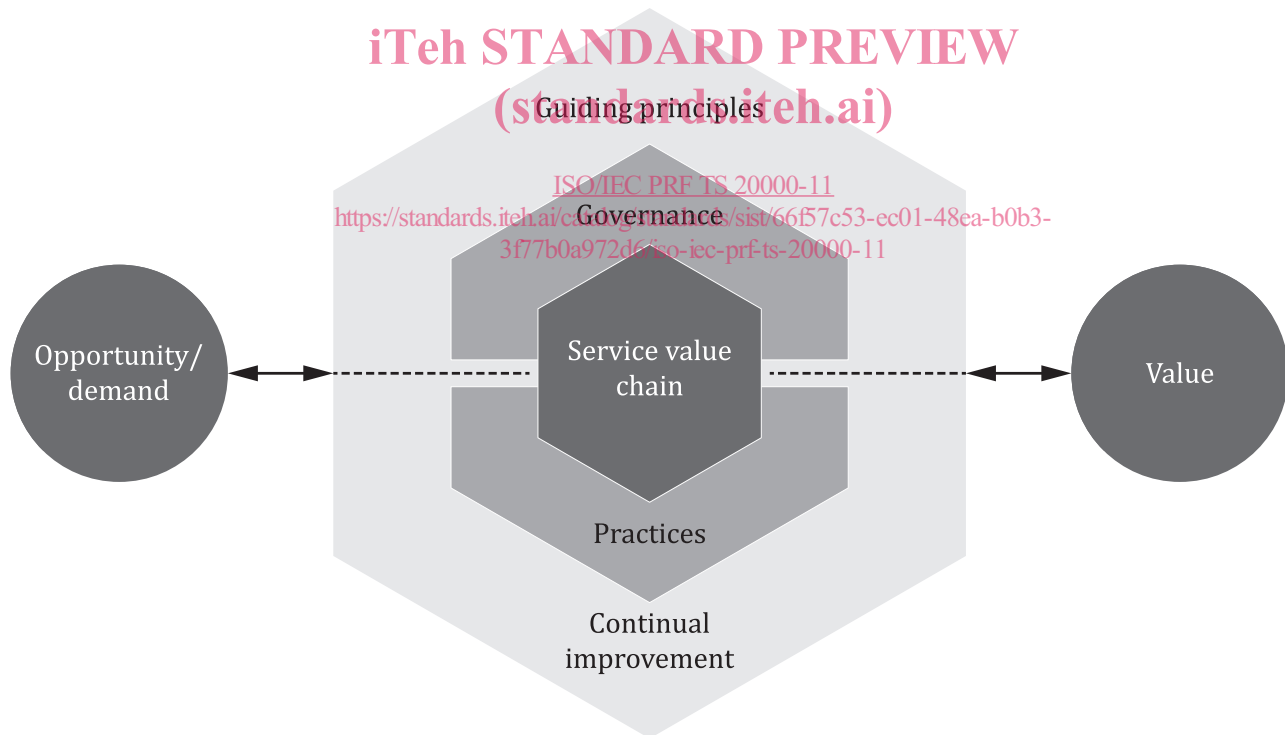
- **Value streams and processes:** define how the various parts of an organization work in an integrated and coordinated way to enable value creation through the services.

The four dimensions represent perspectives which are relevant to the whole SVS, including the entirety of the service value chain and all ITIL practices. The four dimensions are constrained or influenced by external factors such as political, economic, social, technological, legal or environmental (PESTLE), which are beyond the control of the service value system.

#### 4.2.3 The ITIL service value system

The ITIL service value system (SVS) represents how the various components and activities of the organization work together to facilitate value creation. ITIL calls this value co-creation, to indicate that value is created together by the organization, its customers and other organizations in the service relationship. The core components of the ITIL SVS, as shown in [Figure 2](#), are:

- governance;
- continual improvement;
- the ITIL guiding principles;
- the ITIL service value chain;
- the ITIL practices.



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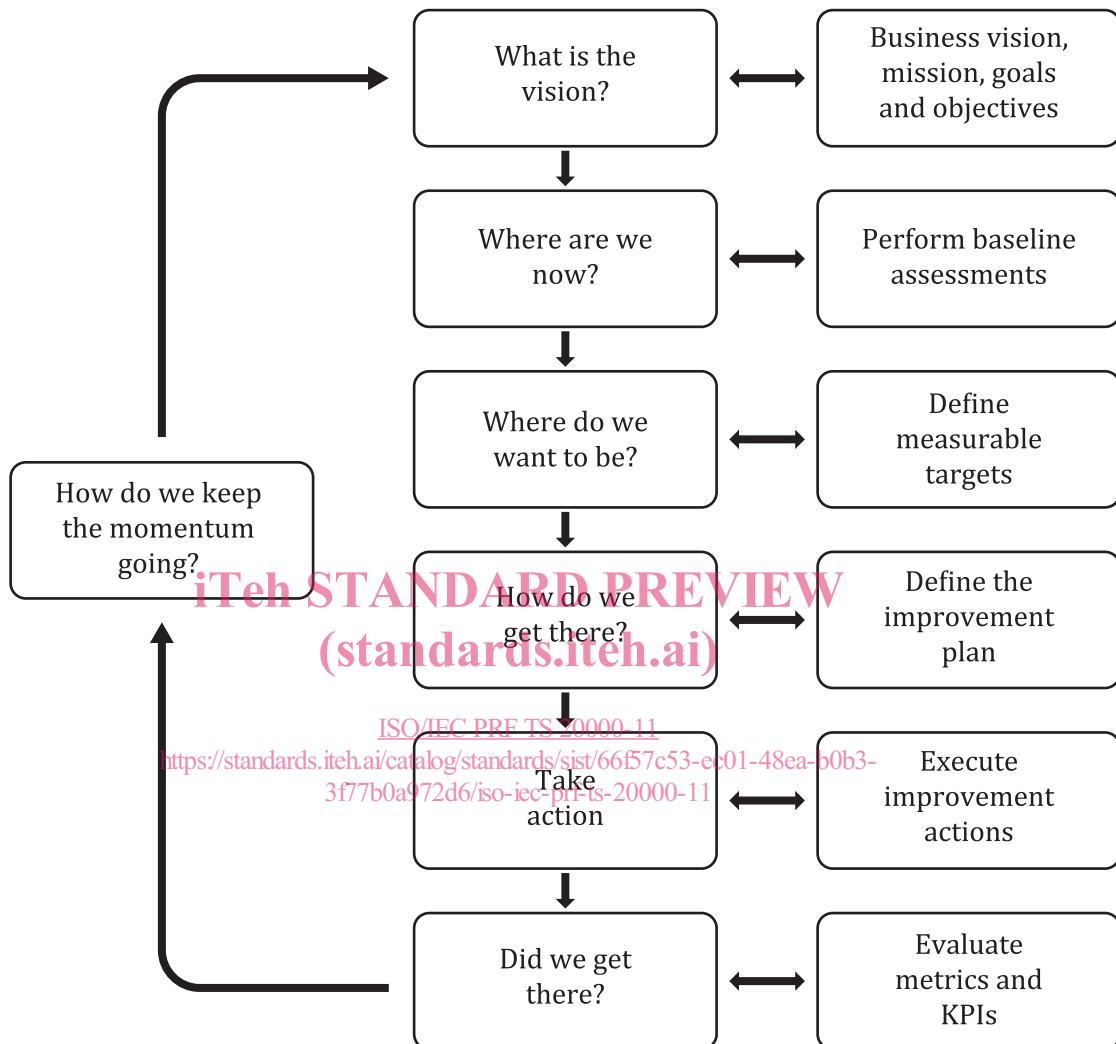
**Figure 2 — The ITIL Service Value System. Copyright © AXELOS Limited 2021. Used under permission of AXELOS Limited. All rights reserved.**

#### 4.2.4 Governance

Governance is the means by which an organization is directed and controlled. The role and position of governance in the ITIL SVS will vary depending on how the SVS is applied in an organization.

#### 4.2.5 Continual improvement

Continual improvement is a recurring organizational activity performed at all levels to ensure that an organization's performance continually meets stakeholders' (interested parties') expectations. ITIL 4 supports continual improvement with the ITIL continual improvement model which includes the steps shown in [Figure 3](#).



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**Figure 3 — The ITIL Continual Improvement Model. Copyright © AXELOS Limited 2021. Used under permission of AXELOS Limited. All rights reserved.**

#### 4.2.6 The ITIL guiding principles

The ITIL guiding principles are recommendations that can guide an organization in all circumstances, regardless of changes in its goals, strategies, type of work or management structure. They are universal and enduring and represent the core messages of ITIL and of service management, supporting successful actions and good decisions of all types and at all levels. They can be used to guide organizations in their work as they adopt a service management approach and adapt ITIL guidance to their own specific needs and circumstances. The seven ITIL guiding principles are:

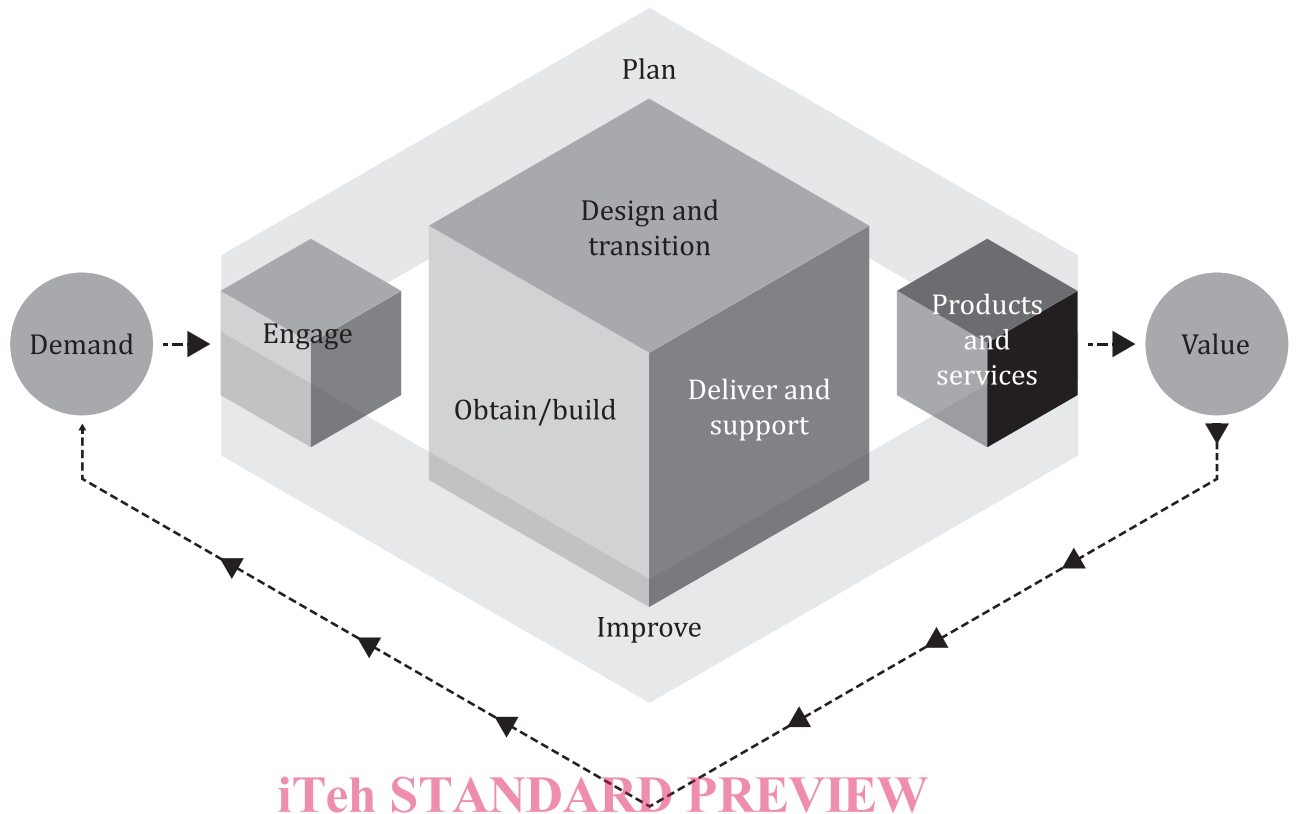
- **Focus on value.** Everything that the organization does needs to map, directly or indirectly, to value for the stakeholders.

- **Start where you are.** Do not start from scratch and build something new without considering what is already available to be leveraged.
- **Progress iteratively with feedback.** Do not attempt to do everything at once; organize the work into smaller manageable segments for better results and ongoing improvement through feedback.
- **Collaborate and promote visibility.** Working together across boundaries produces results that have greater acceptance, more relevance to objectives and increased likelihood of long-term success.
- **Think and work holistically.** No service, or element used to provide a service, stands alone. Taking a holistic approach to service management includes establishing an understanding of how all the parts of an organization work together in an integrated way.
- **Keep it simple and practical.** If a process, service, action or metric fails to provide value or produce a useful outcome, eliminate it. Use the minimal number of steps to achieve the objective.
- **Optimize and automate.** Resources of all types, particularly human resources, should be used to their best effect. Eliminate anything that is truly wasteful and use technology to achieve whatever it is capable of. Human intervention should only happen where it really contributes value.

#### 4.2.7 The ITIL service value chain

The central element of the SVS is the service value chain, an operating model which outlines the key activities required to respond to demand and facilitate value realization through the creation and management of products and services. The ITIL service value chain includes six value chain activities, as shown in [Figure 4](#):

- **Plan:** Ensure a shared understanding of the vision, current status and improvement direction of all services in the organization;
- **Improve:** Ensure continual improvement of products, services and practices across all value chain activities and the resources in the four dimensions of service management;
- **Engage:** Ensure transparency, continual engagement, good relationships and a good understanding of stakeholder needs;
- **Design and transition:** Ensure that services continually meet stakeholder expectations for quality, costs and time to market;
- **Obtain/build:** Ensure that service components are available when and where they are needed and meet agreed specifications;
- **Deliver and support:** Ensure that services are delivered and supported to agreed specifications and stakeholders' expectations.



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Figure 4 — The ITIL Service Value Chain. Copyright © AXELOS Limited 2021. Used under permission of AXELOS Limited. All rights reserved.

#### 4.2.8 The ITIL practices

Practices are sets of organizational resources designed for performing work or accomplishing an objective. They consider resources required across each of the four dimensions of service management for a more holistic approach to achieve a successful outcome. These are distinct from processes, which are sets of interrelated or interacting activities that transform inputs into outputs. Processes define the sequence of activities and their dependencies and can be part of practices within the value stream and processes dimension. The ITIL SVS includes 14 general management practices, 17 service management practices and three technical management practices, as shown in [Table 1](#).

**Table 1 — ITIL management practices**

General management practices	Service management practices	Technical management practices
Architecture management	Availability management	Deployment management
Continual improvement	Business analysis	Infrastructure and platform management
Information security management	Capacity and performance management	Software development and management
Knowledge management	Change enablement	
Measurement and reporting	Incident management	
Organizational change management	IT asset management	
Portfolio management	Monitoring and event management	
Project management	Problem management	
Relationship management	Release management	
Risk management	Service catalogue management	
Service financial management	Service configuration management	
Strategy management	Service continuity management	
Supplier management	Service design	
Workforce and talent management	Service desk	
	Service level management	
	Service request management	
	Service validation and testing	

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**4.2.9 Value streams**

A value stream is a series of steps an organization undertakes to create and deliver products and services to consumers. These steps can be seen as journeys through the six value chain activities for specific scenarios or types of demand. They use resources of the service provider and the service consumers to generate required outputs, such as resolving an incident or designing a new service.

**4.3 Relationship between ISO/IEC 20000-1 and ITIL**

ISO/IEC 20000-1 and ITIL are not based on each other, but they have features in common and there are relationships between the two. There is a strong correlation between most of the ISO/IEC 20000-1 requirements and ITIL guidance. Refer to [Annex B](#) for detailed correlation.

Using ISO/IEC 20000-1 and ITIL together can support organizations intending to implement and derive the benefits from service management. For organizations that wish to demonstrate conformity with the requirements specified in ISO/IEC 20000-1, ITIL can be a starting point. Implementation teams can take the basic principles and approaches suggested by ITIL and adapt the framework to their service management objectives, organizational structure, existing roles and culture, ensuring that they meet the requirements of ISO/IEC 20000-1. For example, ITIL is a source of guidance that can be used to meet the requirements in ISO/IEC 20000-1:2018, Clause 8 and other clauses.

As ISO/IEC 20000-1 specifies the critical aspects of service management, it can be used as an approach to navigate through the critical parts of service management frameworks such as ITIL. This can be achieved by looking at the ISO/IEC 20000 requirements and guidance before examining the more detailed guidance that can be found in the framework(s) of choice. This approach can therefore help organizations to identify and establish a solid foundation for service management that can be continually improved. Once the processes have been implemented, the organization can conduct a gap analysis to see what improvements can be implemented.

Continual improvement projects can include modifying or updating documented processes. Using the correlations in the annexes of this document, the ITIL framework can be mapped to ISO/IEC 20000-1 requirements. By carefully reviewing and analysing relevant sections of the ITIL framework, an organization can better understand how to design, integrate or improve the ISO/IEC 20000-1 requirement in question. The organization can also use ITIL to consider and prioritize possible improvements to existing practices.

## 5 Correlation of ITIL to ISO/IEC 20000-1

### 5.1 General

There are six ITIL 4 publications covering its basic model and its ITIL Specialist, ITIL Strategist and ITIL Leader modules.

### 5.2 *ITIL Foundation – ITIL 4 Edition*

*ITIL Foundation – ITIL 4 Edition* covers the ITIL service management framework. It explains key concepts of service management, the four dimensions of service management, the ITIL service value system and the ITIL management practices.

This publication correlates with various clauses of ISO/IEC 20000-1:2018, including Clause 4: The organization and its context; Clause 6: Risks and opportunities; Clause 8: Various service management practices; and Clause 10: Continual improvement.

### 5.3 *ITIL 4: Drive Stakeholder Value*

*ITIL 4: Drive Stakeholder Value* provides guidance on establishing, maintaining and developing effective service relationships at appropriate levels. It covers seven steps of the “customer journey”: explore, engage, offer, agree, onboard, co-create and realize.

This publication correlates with various parts of ISO/IEC 20000-1:2018, including Clause 4: Interested parties; Clause 5: Leadership; Clause 6: Risks and opportunities and objectives; Clause 7: Communication; Clause 8: Various service management practices; and Clause 9: Monitoring and measurements, internal audit, management review and service reporting.

### 5.4 *ITIL 4: Direct, Plan and Improve*

*ITIL 4: Direct, Plan and Improve* helps to align service management with modern business requirements; drive successful organizational transformation; and embed continual improvement into an organization. It covers strategy and direction, assessment and planning, measurement and reporting, continual improvement, communication and organizational change management and developing a service value system.

This publication correlates with various parts of ISO/IEC 20000-1:2018, including Clause 5: Leadership; Clause 6: Risk and opportunities, objectives, plan the SMS; Clause 7: Communication; Clause 8: Various service management practices; Clause 9: Monitoring and measurement, internal audit; and Clause 10: Continual improvement.

### 5.5 *ITIL 4: Create, Deliver and Support*

*ITIL 4: Create, Deliver and Support* addresses the cultural and team management aspects of service management. It provides an overview of tools and technologies which support service management and demonstrates how to integrate service management practices into end-to-end value streams. It covers team development, the use of technology to support services, value streams and supplier management.