



# What is ISO/IEC 20000?

*An Introduction to the  
International Service  
Management Standard*

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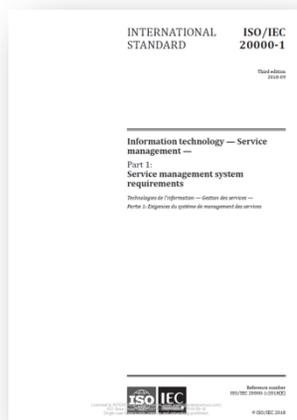
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## Introduction

ISO/IEC 20000 is the international standard for service management. The document describes the norm for any organization delivering services and is seeking guidance on what it should be doing at the very least to ensure that its services are of quality and that the management of those services is done effectively and efficiently. Organizations desiring independent confirmation of the adherence to this normative standard have the option to be assessed by qualified consultants or even be audited by third party certification bodies, i.e. external auditors. The latter option may lead to certification.



The standard has served the service industry well since 2005. Globally, 1000s of organizations have adopted its best practices. In particular information technology (IT) organizations have taken advantage of it. Recently, an increasing amount of other service industries are benefiting from ISO/IEC 20000, such as organizations in healthcare services, legal services, financial services and government services.

The secret to the standard's increasing popularity is its pragmatic and common sense approach to what an organization

should be doing at every level in the organization, and from the inception of the service all the way through its retirement.

This all-inclusiveness is founded in a service management system. A system in which every component serves a purpose and no component is overkill and no component should be overlooked. As a result, ISO/IEC 20000 in essence has a checklist of 212 to-dos, or requirements, or best practices. Organizations working their way through this list, end up with quality services and effective and efficient management of these services. The standard is like a compass that points you in the direction of success.



## A Pragmatic Norm

Most likely, the best that ISO/IEC 20000 has to offer is that it is a very pragmatic and common-sense norm. The capabilities the standard requires are the result of decades of practical experience from contributors representing nearly 40 countries, working together in the Joint Technical Committee 1 / Subcommittee 7 of the International Standard Organization (ISO) and the International Electrotechnical Commission (IEC) organizations.



All have contributed to the 2018 version of the standard through a transparent and

democratic voting process when deciding on which best practices to include. The first edition of the standard was released in 2005 and in 2011 the second version saw the daylight.

Since the introduction of the standard, the committee has released a series of documents that are part of the ISO/IEC 20000 family.

- **ISO/IEC 20000-1:2018**  
Service Management System (SMS) Requirements; the normative standard that is used for capability assessments and certification audits
- **ISO/IEC 20000-2:2019**  
Guidance on the Application of Service Management System; the informative standard which provides recommendations for implementing the service management system
- **ISO/IEC TR 20000-3**  
Guidance on Scope Definition and Applicability of ISO/IEC 20000-1; an informative standard providing advice regarding scoping, applicability and conformity
- **ISO/IEC TR 20000-5**  
Exemplar Implementation Plan; an informative standard providing a sample implementation plan
- **ISO/IEC TR 20000-6**  
Requirements for bodies providing audit and certification of service management systems; a normative standard for third-party auditors
- **ISO/IEC TR 20000-10**  
Concepts and vocabulary
- **ISO/IEC TR 20000-11**  
Guidance on the relationship between ISO/IEC 20000-1 and service management frameworks: ITIL®
- **ISO/IEC TR 20000-12**  
Guidance on the relationship between ISO/IEC 20000-1 and service management frameworks: CMMI-SVC®

Additional parts are expected to be released.

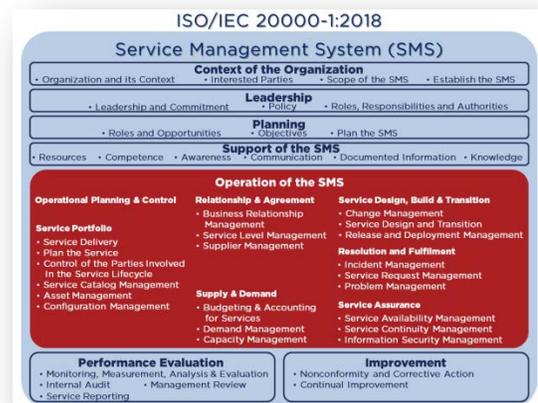
The core components of the standard are the first two documents:

- **Part 1: ISO/IEC 20000-1:** a document with 212 requirements an organization “shall” adhere to when seeking ISO/IEC 20000 certification. Each requirement has the word “shall” in it.
- **Part 2: ISO/IEC 20000-2:** a document with more than 1000 recommendations an organization “should” take into consideration when desiring to meet the requirements of Part 1 of the standard. Each recommendation has the word “should” in it or the words “can” or “could”.

Due to the standard’s practicality and comprehensive guidance, more and more organizations are benefiting from what the standard has to offer, whether or not seeking certification.

## Structure

The diagram below shows the structure of the ISO/IEC 20000-1 standard.



The foundation of the standard is the Service Management System (SMS), the blue rectangle. With this foundation in place, the organization is able to operate the SMS, the red rectangle, through a set of 20 processes to manage and deliver the services.

Service requirements, originating from customers or business partners, enter into the SMS. The services delivered and consumed by the customers or business partners, exit the SMS.

## Service Management System

The Service Management System is the framework of capabilities, including processes, tools and resources (human, financial, technology, and information resources) that are coordinately used to plan, execute, document and continually improve tasks to manage and deliver services in a goal-oriented, customer-oriented and quality-oriented way.

In other words, the system is much focused with no overkill, redundant or duplication of work and therefore ensuring efficiencies when managing and delivering services.

And since management system is a system with 212 components, requirements, best practices or to-dos, so to speak the management and the delivery of the services becomes effective as each component serves the purpose of translating service requirements from the customer or business partner into quality services.

The foundational components of the SMS are listed below:

- Context of the Organization
- Leadership
- Planning
- Support of the SMS
- Operation of the SMS
- Performance Evaluation
- Improvement

The SMS, which includes the 20 service management processes referenced earlier, is what will be audited for certification.



The topics addressed in **Context of the Organization** are:

- Organization and its context
- Interested parties
- Scope of the SMS
- Establish the SMS

This SMS component sets the boundaries of the system organizationally, geographically, technically and also service-wise, requirements-wise and quality-wise.



The **Leadership** component of the SMS consists of:

- Leadership and commitment
- Policy
- Roles, responsibilities and authorities

This component of the SMS consists of requirements for the organization's top management such as providing direction and organizing and structuring the organization.



When **Planning** for the SMS, the following topics need to be addressed:

- Risks and opportunities
- Objectives
- Plan the SMS

The planning component is concerned with defining a strategy for the organization to meet the service requirements from the customer or business partner. The strategy needs to take into consideration aspects such as risks, opportunities, and objectives.



The **Support of the SMS** focusses on the following topics:

- Resources
- Competence
- Awareness
- Communication
- Documented information
- Knowledge

The people-focus of this component speaks volumes with its emphasis on communication, competencies, knowledge and awareness. Besides human resources, ISO/IEC 20000 also requires the determination and the provisioning of technical resources, financial resources and information resources. The latter includes documentation and records, such as plans, policies and reports.



The **Operation of the SMS** includes the 20 processes performing the tasks and activities to manage and deliver the services. The processes are combined in groups when the purpose has similarities.

- Operational planning and control
- Service portfolio
- Relationship and agreement
- Supply and demand
- Service design, build and transition
- Resolution and fulfilment
- Service assurance

The process groups are listed above. Refer to the process paragraph to learn more about the 20 processes.



**Performance evaluation of the SMS** addresses:

- Monitoring, measurement, analysis and evaluation
- Internal audit
- Management review
- Service reporting

In the spirit of one cannot manage when one does not measure, this SMS component covers just that. A special form of measuring the effectiveness of the SMS and the service is the internal audit.



The **Improvement** component of the SMS covers:

- Nonconformity and corrective action
- Continual improvement

Since no SMS or service is perfect, there is always room for improvement. Or when service requirements change, chances are that improvements to the services are needed.

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## Service Management Processes

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The operation of the Service Management System is where services are managed and delivered. This requires that work needs to be done. Doing work, means tasks and activities are to be executed. These activities are formalized and optimized by means of processes and preferably automated through process automation.

Below you will find each process and a brief description of the intent of the process.

Operational planning and control

This process is responsible to plan, implement and control all the processes of the SMS in such a way that the each process performs to meet the service requirements.

Service delivery

Service delivery is responsible for ensuring coordination of the activities and resources of the SMS.

Plan the service

When planning the service, the organization determines the service requirements for existing services, new services and changes to services. Service changes are proposed and, if approved, prioritized to meet business needs and objectives.

Control of parties involved in the service lifecycle

For those services, processes and for those portions of service and processes that are operated by other parties, the appropriate levels of control need to be determined and implemented.

Service catalog management

A catalog of services is to be created and maintained and made available to customers or business partners.

Asset management

The assets that are used to deliver the services need to be managed to meet the service requirements and obligations.

Configuration management

The components a service is comprised of, also referred to as configuration items, that are used to deliver the services need to be managed to meet the service requirements and obligations.

Business relationship management

The organization is to establish a relationship with the customer or business partner that promotes the understanding of the evolving business environment in order for the organization to be able to respond to new or changed service requirements.

Service level management

Not every customer or business partner needs the same level of service. This process negotiates service level agreements which meet the needs and expectations of the customer or business partner and can be delivered by the organization.

Supplier management

When using other parties for the delivery of services, the service quality received is to meet the needs and the expectations of the organization. With external suppliers, contracts need to be negotiated. With internal suppliers, agreements need to be agreed on.

Budgeting and accounting for services

The organization is to budget and account for services in line with its financial management policies and processes. This includes conducting financial forecasts.

Demand management

The organization is required to determine current demand for services as well as forecast future demand for services. Monitoring and reporting on demand and actual consumption is also required.

### Capacity management

The capacity management process ensures that, at all times, the agreed on current and future resource capacity requirements can be met.

### Change management

Changes to services and to service components are to be controlled and managed in such a way that each change is successful.

### Service design and transition

This process is mostly known as project management; the process that is being used to manage service or major changes.

### Release and deployment management

This process is responsible for the deployment of changes to service components and major changes that are needed to operationalize new or changed services.

### Incident management

When services or service components that are being delivered experience any issues, the incident management process is responsible to act on those as quickly as possible.

### Service request management

When customers or business partners need something, for example, information, advice or training the service request management process has the immediate appropriate response to this.

### Problem management

For recurring issues, the problem management process will seek for and see to it that a permanent solution is implemented.

### Service availability management

Services need to be available per the agreement with the customer or business partner. This process ensures this and plans for it.

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## Quality Principles

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ISO/IEC 20000 combines the world of quality and continuous improvement of the organization's processes, services and service management system. With this, ISO/IEC 20000 provides an answer to the need of a clear and concise defined level of quality within the service management field of expertise.

ISO/IEC 20000 incorporates all of the seven quality management principles of ISO 9001:

1. Customer Focus
2. Leadership
3. Engagement of People
4. Process Approach
5. Improvement
6. Evidence-based Decision-making
7. Supplier Relationship

Every ISO/IEC 20000-1 requirement supports one or more of these quality principles. What does this mean? For example, when not meeting (some of) the requirements supporting Customer Focus, the organization needs to implement some changes. This could include for example doing a better job capturing requirements from the customer. As a result, the organization needs to operate differently. This could involve that different tasks have to be performed, different people need to get involved in performing the tasks and different tools may be needed or tools may need to be used differently.

All these changes may not happen overnight. They may even face resistance. In other words, the organization will need to approach these challenges from an organizational change perspective. Or in other words, the attitude, behavior and culture may need to change when seeking adherence to the requirements of ISO/IEC 20000.

Experience has learned that this is the biggest challenge for organizations. That said, after going through these changes, it is also the biggest reward. The organization is proactive, more agile, more effective and on the path to become more and more efficient.

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## Benefits

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ISO/IEC 20000 provides a framework and systematic approach to managing the processes to deliver a service that conforms to the customer expectations. Implementing ISO/IEC 20000 improves the effectiveness and efficiency of the business process and it saves money. Most companies implementing ISO/IEC 20000 have experienced an increase in service effectiveness and process efficiency, higher customer satisfaction, improved service quality and increased levels of value realization. Not to mention the strategic guidance that was provided to

top management to steer the organization in the direction of higher value perception of the services delivered.



An ISO/IEC 20000 certified organization complies with globally accepted norms regarding the management and the delivery of services. For customers it becomes easier to compare these organizations.

There are many other benefits of being certified or simply using the standard even when not seeking certification.

Below you will find a few examples.

- To qualify for new customers; more and more companies and organizations consider ISO/IEC 20000 certification an essential requirement for conducting business with a new vendor
- To enter global markets; the ISO/IEC 20000 standards are widely recognized
- To objectively measure the level of compliance to industry best practices
- To have better information available for numerous purposes
- To better streamline to various process improvements that may go on simultaneously in an organization
- To provide guidance with prioritizing the best practices to be implemented in an organization
- To give a company or organization a competitive edge
- To show a drive for quality services
- To objectively assess and benchmark levels of organizational maturity
- To increase customer focus and transparency of value provided to the business
- To establish a mentality of continual improvement in the organization

## The Certification Process

The ISO/IEC 20000 certification process consists of seven steps:

1. Complete a Questionnaire
2. Apply for an Assessment
3. Conduct an optional pre-audit
4. Conduct an Initial Audit (Stage 1)
5. Conduct the Certification Audit (Stage 2)
6. Conduct Surveillance Audits
7. Conduct the Re-certification Audits



Prior to contacting certification auditors, it is recommended to conduct self-assessments or readiness assessments done by an experienced consulting firm or a qualified internal auditor.

The very first step of the certification process is to select a Registered Certification Body (RCB), an independent accredited organization which is authorized to perform ISO/IEC 20000 certification audits and that can certify service provider organizations. The certification body will get the process going by forwarding the questionnaire and the application form for the certification audit.

In order to increase comfort levels to determine whether the service provider is ready for certification, one can have the RCB conduct a pre-audit. This optional audit that has no consequences as far as failing or conforming to the standard is comparable to a certification audit. It

provides objective insight whether or when to pursue with the certification audit.

The certification audit consists of two stages. During stage 1, the lead auditor will perform a document review. Service Management System documents, such as policies, plans, processes, procedures, and agreements, are being reviewed on compliance with the standard's requirements.

During this stage the scope of certification is being agreed upon. In other words, which part, or which services, of the service provider's organization is being certified.

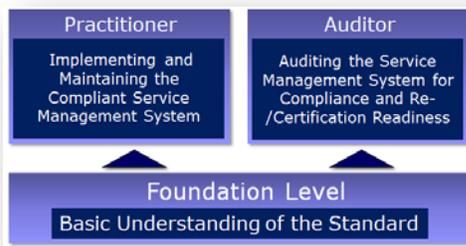
During stage 2, auditors will be looking for records (proof, evidence) that the Management System is operated in line with the documented Service Management System. In other words 'show me that you are you doing what you say you are doing'. This includes live interviews and onsite inspections. A Corrective Action Plan (CAP) usually identifies the areas to be addressed to close the gaps that have been identified during the several audit stages.

When meeting all the requirements, the RCB will grant certification to the service provider for three years. During this timeframe at least two surveillance audits will be conducted to determine whether the service provider is still upholding the requirements.

After three years a recertification audit is required to maintain certification.

## Qualification Scheme

Amongst many qualification schemes that are available, APMG International has developed an ISO/IEC 20000 qualification scheme that is straightforward and to the point. It consists of three certification training courses for individuals.



This certification program for individuals is not only geared towards understanding the basic ISO/IEC 20000 requirements, but its practical advanced modules also focus extensively on the essential organizational change aspects such as attitude, behavior and culture, something which comes along with an ISO/IEC 20000 implementation effort. The certification program serves as a viable and more focused alternative to the ITIL® qualification scheme.

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## Useful Links

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Below you will find a few useful ISO/IEC 20000 links.

- ISO Organization:  
<http://www.iso.org>
- ISO/IEC 20000 Certification Training:  
<https://interpromusa.com/training-services/iso-iec-20000-certification-training/>
- ISO/IEC 20000 Certified Firms:  
<http://www.isoiec20000certification.com/>
- ISO/IEC 20000 RCBs:  
<http://www.isoiec20000certification.com/>

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## About the Author

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Mart Rovers is the President of INTEPROM. He has over 35 years of experience in IT management and has been consulting, coaching and training in service management, business relationship management, information security

management, IT Governance and business continuity management since 1992.

He currently serves as a Board Member of the Arizona ITSM Professionals.

Mart is a certified ISO/IEC 20000 Internal Auditor and ISO/IEC 20000 Executive Consultant/Manager (Master). He holds the ITIL® v3 Expert certification along with ISO/IEC 27001, ISO 22301, CBRM, VeriSM, DevOps and COBIT Professional certifications. He has led numerous organizations towards becoming ISO/IEC 20000, ISO/IEC 27001, and ISO 22301 certified and is an accredited instructor for ISO/IEC 20000, ISO/IEC 27001, ISO 22301, BRM, COBIT, VeriSM, DevOps and ITIL training courses.

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## About INTERPROM

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Since 1997 INTERPROM, is a vendor neutral IT Management consulting and training firm. INTERPROM was actively involved in the first ITIL implementation project in the US during the mid-90s. Ever since, INTERPROM has helped more than 500 US companies and organizations of all sizes to benefit from ITIL, ISO/IEC 20000, ISO/IEC 27001, ISO 22301, BRM, and COBIT in various ways, ranging from executive advisory, implementation workshops, maturity and capability assessments and audits, consulting, coaching, implementation project management, interim management and certification training courses,.

INTERPROM prides itself by only using its own highly experienced consultants, advisors, coaches, auditors and instructors who have actually gone through and implemented IT Management best practices for decades.

INTERPROM is an Accredited Training Provider (ATP).

