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Information security, cybersecurity and privacy protection — Guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1

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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. In the field of information technology, ISO and IEC have established a joint technical committee, ISO/IEC JTC 1.

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).

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

For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: [Foreword - Supplementary information](#)

The committee responsible for this document is ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *Information security, cybersecurity and privacy protection*.

This third edition cancels and replaces the second edition (ISO/IEC 27013:2015), which has been technically revised. The changes made are to update the document to align with the third edition of ISO/IEC 20000-1.

Introduction

The relationship between information security management and service management is so close that many organizations already recognise the benefits of adopting the two International Standards for these domains: ISO/IEC 27001 for information security management and ISO/IEC 20000-1 for service management. It is common for an organization to improve the way it operates to achieve conformity with the requirements specified in one International Standard and then make further improvements to achieve conformity with the requirements of another.

There are a number of advantages for an organization in ensuring its management system takes into account both the service lifecycle and the protection of the organization's information. These benefits can be experienced whether one International Standard is implemented before the other, or both International Standards are implemented simultaneously. Management and organizational processes, in particular, can derive benefit from the mutually reinforcing concepts and similarities between these International Standards and their common objectives.

Key benefits of an integrated implementation of information security management and service management include the following:

- a) credibility, to internal and external customers and other interested parties of the organization, of an effective and secure service;
- b) lower cost of implementing, maintaining and auditing an integrated management system, where effective and efficient management of both services and information security are part of an organization's strategy;
- c) reduction in implementation time due to the integrated development of processes common to both standards;
- d) better communication, increased reliability and improved operational efficiency through elimination of unnecessary duplication;
- e) a greater understanding by service management and information security personnel of each other's viewpoints;
- f) an organization certified for ISO/IEC 27001 can more easily fulfil the requirements for information security specified in ISO/IEC 20000-1, 8.7.3, as both International Standards are complementary in requirements.

The guidance in this International Standard is based upon ISO/IEC 27001:2013 and ISO/IEC 20000-1:2018.

This International Standard is intended for use by persons who intend to integrate ISO/IEC 27001 and ISO/IEC 20000-1, who are familiar with both, either or neither of those International Standards.

This International Standard does not reproduce content of ISO/IEC 27001 or ISO/IEC 20000-1. Equally, it does not describe all parts of each International Standard comprehensively. Only those parts where subject matter overlaps or differs are described in detail. It is assumed that users of this document have access to ISO/IEC 20000-1 and ISO/IEC 27001.

This International Standard does not provide guidance associated with the various legislation and regulations outside the control of the organization. These can vary by country and impact the planning of an organization's management system.

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Information security, cybersecurity and privacy protection — Guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1

1 Scope

This document provides guidance on the integrated implementation of ISO/IEC 27001 and ISO/IEC 20000-1 for those organizations that are intending to either

- a) implement ISO/IEC 27001 when ISO/IEC 20000-1 is already implemented, or vice versa,
- b) implement both ISO/IEC 27001 and ISO/IEC 20000-1 together, or
- c) integrate existing management systems based on ISO/IEC 27001 and ISO/IEC 20000-1.

This document focuses exclusively on the integrated implementation of an information security management system (ISMS) as specified in ISO/IEC 27001 and a service management system (SMS) as specified in ISO/IEC 20000-1. In practice, ISO/IEC 27001 and ISO/IEC 20000-1 can also be integrated with other management system standards, such as ISO 9001 and ISO 14001.

[Annex A](#) of this document provides a comparison of content at a clause level between ISO/IEC 27001 and ISO/IEC 20000-1.

[Annex B](#) of this document provides a comparison of topics between the requirements specified in ISO/IEC 20000-1 and the controls in ISO/IEC 27001, Annex A.

[Annex C](#) of this document provides a comparison of:

- terms defined in ISO/IEC 27000, the glossary for the ISO/IEC 27000 family of standards;
- terms defined or used in ISO/IEC 20000-1.

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*

ISO/IEC 27000:2018, *Information technology — Security techniques — Information security management systems — Overview and vocabulary*

ISO/IEC 27001:2013, *Information technology — Security techniques — Information security management systems — Requirements*

3 Terms, definitions and abbreviated terms

For the purposes of this document, the terms and definitions given in ISO/IEC 27000 and 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/>

The following abbreviations apply.

ISMS information security management system (from ISO/IEC 27001)

SMS service management system (from ISO/IEC 20000-1)

4 Overviews of ISO/IEC 27001 and ISO/IEC 20000-1

4.1 Understanding the International Standards

An organization should have a good understanding of the characteristics, similarities and differences of ISO/IEC 27001 and ISO/IEC 20000-1 before planning an integrated management system for information security management and service management. This maximizes the time and resources available for implementation. [Clauses 4.2](#) to [4.4](#) of this document provide an introduction to the main concepts underlying both International Standards but should not be used as a substitute for a detailed review.

4.2 ISO/IEC 27001 concepts

ISO/IEC 27001 provides a model for establishing, implementing, maintaining and continually improving an ISMS to protect information. Information can take any form, be stored in any way and be used for any purpose by, or within, the organization.

To achieve conformity with the requirements specified in ISO/IEC 27001, an organization should implement an ISMS based on a risk assessment process. As part of a risk treatment process, the organization should select, implement, monitor and review a variety of measures to manage identified risks. These measures are known as information security controls. The organization should determine acceptable levels of risk, taking into account the requirements of interested parties relevant to information security. Examples of requirements are business requirements, legal and regulatory requirements or contractual obligations.

ISO/IEC 27001 can be used by any type and size of organization. Excluding any of the requirements specified in Clauses 4 to 10 is not acceptable when an organization claims conformity to ISO/IEC 27001.

4.3 ISO/IEC 20000-1 concepts

ISO/IEC 20000-1 specifies requirements for establishing, implementing, maintaining and continually improving an 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.

Some of the requirements specified in ISO/IEC 20000-1 are grouped into clauses indicating processes, such as incident management, change management and supplier management. Some requirements for information security management are specified in ISO/IEC 20000-1, 8.7.3. 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. ISO/IEC 20000-1 is intended for management of services using technology and digital information. Exclusion of any of the requirements in ISO/IEC 20000-1, Clauses 4 to 10, is not acceptable when the organization claims conformity to ISO/IEC 20000-1, irrespective of the nature of the organization.

4.4 Similarities and differences

Service management and information security management are often treated as if they are neither connected nor interdependent. The context for such separation is that service management can easily be related to efficiency, service quality, customer satisfaction and profitability, while information security management is often not understood to be fundamental to effective service delivery. As a

result, service management is frequently implemented first. There are some shared concepts between these two standards, as well as concepts that are unique to each.

Information security management and service management clearly address very similar requirements and activities, even though the SMS and the ISMS each highlight different details. When working with the two standards, it should be understood that their characteristics differ in more than one aspect. For example, their scopes can differ (see 5.2). They also have different goals. ISO/IEC 20000-1 is designed to ensure that the organization provides effective services, while ISO/IEC 27001 is designed to enable the organization to manage information security risk and recover from or prevent information security incidents.

See [Annex A](#) of this document for details of the correspondence between ISO/IEC 27001 and ISO/IEC 20000-1 for [Clauses 1](#) - 10. See [Annex B](#) of this document for details of the comparison between the controls in Annex A of ISO/IEC 27001 and the requirements in ISO/IEC 20000-1.

5 Approaches for integrated implementation

5.1 General

An organization planning to implement both ISO/IEC 27001 and ISO/IEC 20000-1 can be in one of three states as follows:

- unofficial management arrangements exist which cover both information security management and service management but have not been formalised, documented or deliberately integrated into the organization's other activities;
- there is a management system based upon one of these two International Standards;
- there are separate management systems based on the two International Standards, but these are not integrated.

An organization planning to implement an integrated management system for information security and service management should consider at least the following:

- a) other management system(s) already in use (e.g. a quality management system);
- b) the scope(s) of the proposed ISMS and SMS;
- c) all services, processes and their interdependencies in the context of the integrated management system;
- d) elements of each standard which can be merged and how they can be merged;
- e) elements that are to remain separate;
- f) the impact of the integrated management system on customers, suppliers and other interested parties;
- g) the impact on technology in use;
- h) the impact on, or risk to, services and service management;
- i) the impact on, or risk to, information security and information security management;
- j) education and training in the integrated management system;
- k) accountabilities and responsibilities for all requirements;
- l) phases and sequence of implementation activities.

5.2 Considerations of scope

One area where the two International Standards can differ is on the subject of scope, namely, what assets, services, processes and parts of the organization the management system should include.

ISO/IEC 20000-1 is concerned with the planning, design, transition, delivery and improvement of services to deliver value to customers, users and the organization. The scope of ISO/IEC 20000-1 includes those parts of the activities that deliver services. The scope of an SMS can include all or some of the services delivered by the organization. The organization in the scope of the SMS can be a whole or part of a larger entity. The SMS scope may also be defined exclusively by a clear physical boundary, such as a single site delivering services. The organization in the scope of the SMS can also be known as a service provider.

ISO/IEC 27001 is concerned with how to manage information security risk. The scope of the ISMS covers those activities related to managing the confidentiality, integrity and availability of the organization's information.

For ISO/IEC 27001, the definition of the organization is that which is covered by the ISMS. As with an SMS, an ISMS can be applied to part or all of an entity and can include services delivered by the organization. The ISMS scope may also be defined exclusively by a clear physical boundary, such as a security perimeter.

In some cases, the full requirements of the two International Standards cannot be implemented for all, or even part, of the organization's activities. This can be the case if, for example, an organization cannot conform to the requirements specified in ISO/IEC 20000-1 because other parties provide or operate all the services, service components or processes in the scope of the SMS. ISO/IEC 20000-1, 8.2.3 states that not all services, service components and processes can be provided by other parties – the organization itself should provide at least some of these.

An organization can implement an SMS and an ISMS with some overlap between the different scopes. Where activities lie within the scope of both ISO/IEC 27001 and ISO/IEC 20000-1, the integrated management system should take both International Standards into consideration (see [Annex A](#)). Differences in scope can result in some services included in the SMS being excluded from the scope of the ISMS. Equally, the SMS can exclude processes and functions of the ISMS. For example, some organizations choose to implement an ISMS only in their operation and communication functions, while application management services are included in their SMS but not in the ISMS. Alternatively, the ISMS can cover all the services, while the SMS can cover only the services for a particular customer or some services for all customers. The organization should align the scopes of the management systems as much as possible to ensure successful integration and to maximize the benefits of the integrated management system.

NOTE Guidance on scope definition for ISO/IEC 20000-1 is available in ISO/IEC 20000-3. Guidance on the scope definition for ISO/IEC 27001 is available in ISO/IEC 27003.

5.3 Pre-implementation scenarios

5.3.1 General

An organization planning an integrated management system can be in one of three states, as described in [5.3.2](#) to [5.3.4](#) of this document. In all cases, the organization has some form of management processes or it would not exist. [5.3.2](#), [5.3.3](#) and [5.3.4](#) of this document provide suggestions for implementation in each of the three states described in [5.1](#).

5.3.2 Neither standard is currently used as the basis for a management system

It is easy to assume that, where neither an ISMS or an SMS is implemented, there are no policies, processes and procedures and that therefore the situation is simple to deal with. However, this is a misconception.

All organizations have some form of management system, which may simply be its processes, plans and policies. This should be adapted to achieve conformity with the requirements specified in either or both of the standards.

The decision regarding the order in which the requirements for the ISMS and the SMS will be implemented should be based on business needs and priorities. Decisions can be influenced by the primary driver, for example competitive positioning or the need to demonstrate conformity to a customer.

Another important decision is whether to implement both an SMS and an ISMS concurrently or sequentially. If the implementation is sequential, either the ISMS or the SMS is implemented and then that management system is extended to include the additional requirements of the other. Both an ISMS and an SMS can be implemented concurrently, if implementation activities and efforts can be coordinated and duplication minimised. However, depending upon the nature of the organization, it can be prudent to start with the requirements specified in one standard and then expand the management system to include the requirements of the other.

These considerations are illustrated in the following scenarios:

Scenario 1: An organization that provides services should start with the implementation of ISO/IEC 20000-1 and then, working from lessons learned during that implementation, expand the management system to include the requirements specified in ISO/IEC 27001.

Scenario 2: An organization that is using other parties for delivery of some services or parts of a service should initially focus on ISO/IEC 20000-1. ISO/IEC 20000-1 includes more requirements for managing other parties, including external and internal suppliers as well as customers acting as a supplier. The organization should then proceed to ISO/IEC 27001.

Scenario 3: A small organization should focus on one of either ISO/IEC 27001 or ISO/IEC 20000-1, depending on its level of reliance upon service management or information security.

Scenario 4: An organization can choose to implement an ISMS and SMS concurrently; this may be handled as a single project, or as two parallel sub-projects within one overarching programme of work that includes a third sub-project focused on the integration.

Scenario 5: Any organization that places a high level of importance on information security should first implement an ISMS which conforms to the requirements specified in ISO/IEC 27001. The next stage should be the expansion of that management system to fulfil the requirements specified in ISO/IEC 20000-1.

An integration working group holding regular meetings during the implementation of requirements for both an SMS and an ISMS can help in ensuring better alignment and integration, as well as minimizing duplication of effort.

5.3.3 The management system fulfils the requirements of one of the standards

Where the organization's management system has already achieved conformity with the requirements specified in one of the two standards, the primary goal should be to integrate the requirements of the other standard. This should be done without suffering any loss of service or jeopardizing information security. This should be carefully planned in advance, with existing documentation being reviewed by a team with a good understanding of both the standards.

The organization should identify the attributes of the established management system, including at least the following:

- a) scope;
- b) management system structure;
- c) policies;

- d) planning activities;
- e) authorities and responsibilities;
- f) practices;
- g) relevant processes;
- h) procedures;
- i) risk management methodologies;
- j) terms and definitions;
- k) resources.

These attributes should then be reviewed to establish how they can be applied to the integrated management system.

5.3.4 Separate management systems exist which fulfil the requirements of each standard

This last case is perhaps the most complex. It illustrates the issue of scope of the management systems as described in 5.2 of this document.

There are three potential scenarios:

Scenario 1: the scope of the ISMS and SMS are identical;

Scenario 2: the scope of the ISMS and SMS are overlapping but not identical;

Scenario 3: the scope of the ISMS and the SMS are different.

It is not necessary to have identical boundaries of scope but the greatest benefit from the integration can come from an identical or significantly overlapping scope.

Even where an ISMS and an SMS have different scopes, the organization can seek to integrate the common requirements for all ISO management system standards, which include those for internal audit, management review and continual improvement.

Alternatively, two organizations can be planning to merge. One has demonstrated conformity to the requirements specified in ISO/IEC 27001, while the other has demonstrated conformity to the requirements specified in ISO/IEC 20000-1.

A review should form the starting point, aiming to achieve the following:

- a) identify and document the existing and proposed scopes to which each standard applies, paying particular attention to their differences;
- b) compare the existing management systems and establish if there are any mutually incompatible aspects;
- c) develop a business case to clarify the benefits of an integrated management system;
- d) start to engage the stakeholders of both management systems with one another;
- e) plan the best approach to achieving an integrated management system:
 - 1) start with a very broad outline view;
 - 2) review this at various levels in the organization to add details;
 - 3) provide feedback and suggested solutions to the appropriate level of authority to allow decisions to be taken.

Although there are many ways of integrating management systems whilst maintaining conformity, an extensive planning phase should be completed.

6 Integrated implementation considerations

6.1 General

Both ISO/IEC 27001 and ISO/IEC 20000-1 now use the same clause structure, common terms and common requirements from Annex SL of the Consolidated ISO Supplement to the ISO/IEC Directives Part 1, which is known as the high-level structure (HLS) for management system standards. This common structure, as well as the common requirements and terms, facilitates the integration of an ISMS and an SMS.

An integrated management system should use consistent and clear terminology. This can result in expressing requirements from one or both of the standards differently from the wording of the published version(s). However, the organization should still ensure clear traceability to the requirements specified in both standards.

Documented traceability should be maintained between the integrated management system and the requirements of each separate standard. To reduce effort, a single set of documentation and authorities can be created for the integrated management system. To support this, the organization can create a traceability matrix to explicitly show how the integrated management system conforms to the requirements of each of the standards. The benefits of this approach include being able to more easily demonstrate conformity in audits and reviews. These benefits also include being able to track which activities are necessary to demonstrate conformity to each standard.

In all cases, the organization's goal should be to produce a viable integrated management system that enables conformity to the requirements specified in both standards. The goal is not to compare the standards or to determine which is best or right. Where there is conflict between viewpoints, this should be resolved in a way which satisfies the requirements specified in both standards and ensures that the organization achieves continual improvement of its ISMS and SMS. The ideal integrated management system should be based on the most efficient approach from both standards, applied appropriately. This is also supported by use of additional details in one standard to supplement the other. Care should be taken to retain everything necessary for conformity to both standards.

6.2 Potential challenges

6.2.1 Requirements and controls

ISO/IEC 27001, Clauses 4-10, specifies requirements for an ISMS. In addition, Annex A of ISO/IEC 27001 contains a comprehensive list of control objectives and controls. The controls in Annex A of ISO/IEC 27001 are not requirements and are not mandatory. ISO/IEC 27001, 6.1.3 specifies that the organization determine all controls necessary to implement information security risk treatment options chosen and then compare these controls with those in Annex A of ISO/IEC 27001 to verify that no necessary controls have been omitted. The Statement of Applicability (SoA) is then used to record which controls are relevant to the organization's ISMS. Control objectives are implicitly included in the controls selected. The control objectives and controls listed in Annex A of ISO/IEC 27001 are not exhaustive and can be substituted with others, or additional control objectives and controls can be added as needed. This means it is possible to include only a subset of the controls in Annex A of ISO/IEC 27001, or indeed to not include any of the [Annex A](#) controls, in the organization's SoA. Any control within ISO/IEC 27001, Annex A that will not contribute to modifying risk in a cost-effective manner is not necessary. Similarly, controls not included in Annex A of ISO/IEC 27001 can be determined as necessary to modify risk.

ISO/IEC 20000-1 specifies requirements for the SMS but does not list any controls and does not specify a requirement for an SoA, so there is no direct correlation between ISO/IEC 27001, Annex A and ISO/IEC 20000-1. However, ISO/IEC 20000-1, 8.7.3.2 does include requirements to determine controls to address information security risks to the SMS and the services, and to document the decisions about

these controls. In addition, there is a requirement to monitor and review the effectiveness of these controls, taking action if required.

Organizations wishing to integrate an ISMS and an SMS need to distinguish between the requirements specified in ISO/IEC 27001 and ISO/IEC 20000-1, and the information security controls specified in Annex A of ISO/IEC 27001. Even if it appears that there is a common topic area between a requirement specified in ISO/IEC 20000-1 and a control included in ISO/IEC 27001, Annex A, the distinction between requirements and controls needs to be understood and communicated to avoid confusion within the organization.

6.2.2 Assets and configuration items

In ISO/IEC 27001 and ISO/IEC 20000-1, there are both differences and similarities in the usage and meaning of asset.

ISO/IEC 20000-1 uses the definition of asset from ISO/IEC 19770-5 which is “item, thing or entity that has potential or actual value to an organization”. The single requirement for asset management in ISO/IEC 20000-1 is minimal to ensure that assets used to deliver services are managed to meet service requirements and obligations such as legal and regulatory requirements.

Asset is not a defined term in ISO/IEC 27001, so it is used in its normal English language sense of something of value. ISO/IEC 27000, 4.2.2 explains that “Information is an asset that, like other important business assets, is essential to an organization’s business and, consequently, needs to be suitably protected”. ISO/IEC 27001, Annex A includes asset management as a control.

ISO/IEC 27001 is focused on the management of risks impacting all information within scope of the ISMS. The form of information is irrelevant: it can be paper, electronic etc. As a result, information, or the resources used for holding or handling information, can also be assets. For example, a data cable can be an asset. Although it is not information, the cable is the resource used for carrying information and therefore is relevant to risk assessment in ISO/IEC 27001.

Information is also seen as a resource in ISO/IEC 20000-1. For example, 7.1 of ISO/IEC 20000-1 specifies that the human, technical, financial and information resources needed for the SMS and the services are determined.

Neither of the standards requires every asset or instance of information to be listed individually. They can be grouped into types, such as hardware, or documents. As part of this activity, their descriptions should be made as consistent as possible, simplifying conformity with both standards. At the beginning of any integration work, a decision should be made on the way in which assets will be classified, categorised and identified. This is to ensure that unambiguous references can be made to assets.

ISO/IEC 20000-1 also uses a defined term, configuration item (CI), as an “element that needs to be controlled in order to deliver a service or services”. Some assets contributing to a service are also configuration items subject to configuration management, as specified in ISO/IEC 20000-1, 8.2.6. For example, a service monitoring application or a server are assets that are likely to be CIs, because they are critical to delivering the service and need to be controlled. If the term asset is used to refer to information, specific assets can be given an additional label if their status is also recognised as a CI in ISO/IEC 20000-1.

The concept of configuration information in ISO/IEC 20000-1 is similar to the asset inventory in ISO/IEC 27001 but perspectives differ.

The requirements in ISO/IEC 20000-1, 8.2.6 can be used in creating and managing an ISMS. From the ISO/IEC 27001 perspective, the organization should manage the security of the configuration information, including availability, integrity and confidentiality. Configuration baselines can include content with security implications. This should be considered when integrating an ISMS and SMS.

6.2.3 Service design and transition

ISO/IEC 20000-1, 8.5.2 includes requirements for service design and transition. There are no directly equivalent requirements in ISO/IEC 27001, although several aspects of service design, transition and delivery are covered in ISO/IEC 27001, Annex A.

An integrated management system should ensure that information security is considered in detail during the planning of all new or changed services. Topics that should be considered include an assessment of the impact of the new or changed service on existing information security controls. This should be done regardless of whether the service falls within the scope of the ISMS. It should also be done for the removal of a service.

6.2.4 Risk assessment and management

Even though risks are considered in both ISO/IEC 27001 and ISO/IEC 20000-1, the nature of some of these risks can differ. The criteria for evaluation and treatment of risks can differ, depending on whether the risks are specific to delivery of a service, or to information security. However, the method used to identify risks can be the same in both cases. Some risks considered by ISO/IEC 20000-1 e.g. the risk of an organization not meeting its service targets for customer satisfaction, would not be considered as risks from the point of view of ISO/IEC 27001. However, risks related to not meeting service requirements may be relevant to both the ISMS and the SMS if any of the service requirements involve information security. Risks identified within the scope of the SMS cannot be assumed to be relevant to the ISMS, and vice versa, but they should be considered in terms of both. Examples of risks that should be considered from both the service management and information security management perspectives include, but are not limited to risks during the planning of services; risks related to changes; risks to service availability; risks to business continuity.

The ownership of risk can also differ between the two approaches. Within the scope of the SMS, risk ownership is not a mandatory requirement. For an SMS, ownership can be with the organization, a customer, suppliers or other parties. For example, a customer can potentially be expected to approve some residual risks as part of their SLA or the service continuity plan. In ISO/IEC 27001, 6.1.2 there is a requirement specified for identification of a risk owner but the matter of risk ownership as internal or external to the organization is not specified. In practice the organization is considered the owner of all information security risks in the scope of the ISMS.

ISO/IEC 27001, 6.1 and Clause 8, specify requirements for assessing and treating aspects of risk associated with information security. These requirements specify both management of risks to the effectiveness of the ISMS and the information in the scope of the ISMS. ISO/IEC 27001, 6.1 provides detail on how to carry out information security risk assessment and treatment.

ISO/IEC 20000-1, 6.1 specifies requirements to determine and document risks to the SMS and the services. This includes risks to the organization, as well as risks related to not meeting service requirements and the involvement of other parties in the service lifecycle. These categories of risk can also be used, when implementing an ISMS, for the categorization of information security risks.

Risk evaluation can have a different focus depending on the different perspectives of the two standards. When planning the integrated implementation of both standards, organizations should be mindful of any differences in risk criteria and the impact that these differences will have on risk evaluation.

The organization should adopt one of these described approaches:

- a) Use one common approach to risk management, including risk assessment, for both standards, avoiding duplication. For example, the risk of loss of availability of an information asset can be shared by the different parts of the integrated management system.
- b) Use separate risk assessment approaches for the two standards. If this option is chosen, the organization should use terminology that differentiates risk assessment of the SMS and services from the ISMS and information security risk assessment.