
**Information technology — Security
techniques — Information security
management systems — Overview and
vocabulary**

*Technologies de l'information — Techniques de sécurité — Systèmes
de management de la sécurité de l'information — Vue d'ensemble et
vocabulaire*

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Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Information security management systems	11
4.1 General	11
4.2 What is an ISMS?	11
4.2.1 Overview and principles	11
4.2.2 Information	12
4.2.3 Information security	12
4.2.4 Management	12
4.2.5 Management system	13
4.3 Process approach	13
4.4 Why an ISMS is important	13
4.5 Establishing, monitoring, maintaining and improving an ISMS	14
4.5.1 Overview	14
4.5.2 Identifying information security requirements	14
4.5.3 Assessing information security risks	15
4.5.4 Treating information security risks	15
4.5.5 Selecting and implementing controls	15
4.5.6 Monitor, maintain and improve the effectiveness of the ISMS	16
4.5.7 Continual improvement	16
4.6 ISMS critical success factors	17
4.7 Benefits of the ISMS family of standards	17
5 ISMS family of standards	18
5.1 General information	18
5.2 Standard describing an overview and terminology: ISO/IEC 27000 (this document)	19
5.3 Standards specifying requirements	19
5.3.1 ISO/IEC 27001	19
5.3.2 ISO/IEC 27006	20
5.3.3 ISO/IEC 27009	20
5.4 Standards describing general guidelines	20
5.4.1 ISO/IEC 27002	20
5.4.2 ISO/IEC 27003	20
5.4.3 ISO/IEC 27004	21
5.4.4 ISO/IEC 27005	21
5.4.5 ISO/IEC 27007	21
5.4.6 ISO/IEC TR 27008	21
5.4.7 ISO/IEC 27013	22
5.4.8 ISO/IEC 27014	22
5.4.9 ISO/IEC TR 27016	22
5.4.10 ISO/IEC 27021	22
5.5 Standards describing sector-specific guidelines	23
5.5.1 ISO/IEC 27010	23
5.5.2 ISO/IEC 27011	23
5.5.3 ISO/IEC 27017	23
5.5.4 ISO/IEC 27018	24
5.5.5 ISO/IEC 27019	24
5.5.6 ISO 27799	25
Bibliography	26

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 ISO documents 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).

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

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This fifth edition cancels and replaces the fourth edition (ISO/IEC 27000:2016), which has been technically revised. The main changes compared to the previous edition are as follows:

- the Introduction has been reworded;
- some terms and definitions have been removed;
- [Clause 3](#) has been aligned on the high-level structure for MSS;
- [Clause 5](#) has been updated to reflect the changes in the standards concerned;
- Annexes A and B have been deleted.

Introduction

0.1 Overview

International Standards for management systems provide a model to follow in setting up and operating a management system. This model incorporates the features on which experts in the field have reached a consensus as being the international state of the art. ISO/IEC JTC 1/SC 27 maintains an expert committee dedicated to the development of international management systems standards for information security, otherwise known as the Information Security Management system (ISMS) family of standards.

Through the use of the ISMS family of standards, organizations can develop and implement a framework for managing the security of their information assets, including financial information, intellectual property, and employee details, or information entrusted to them by customers or third parties. These standards can also be used to prepare for an independent assessment of their ISMS applied to the protection of information.

0.2 Purpose of this document

The ISMS family of standards includes standards that:

- a) define requirements for an ISMS and for those certifying such systems;
- b) provide direct support, detailed guidance and/or interpretation for the overall process to establish, implement, maintain, and improve an ISMS;
- c) address sector-specific guidelines for ISMS; and
- d) address conformity assessment for ISMS.

0.3 Content of this document

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In this document, the following verbal forms are used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission;
- “can” indicates a possibility or a capability.

Information marked as “NOTE” is for guidance in understanding or clarifying the associated requirement. “Notes to entry” used in Clause 3 provide additional information that supplements the terminological data and can contain provisions relating to the use of a term.

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Information technology — Security techniques — Information security management systems — Overview and vocabulary

1 Scope

This document provides the overview of information security management systems (ISMS). It also provides terms and definitions commonly used in the ISMS family of standards. This document is applicable to all types and sizes of organization (e.g. commercial enterprises, government agencies, not-for-profit organizations).

The terms and definitions provided in this document

- cover commonly used terms and definitions in the ISMS family of standards;
- do not cover all terms and definitions applied within the ISMS family of standards; and
- do not limit the ISMS family of standards in defining new terms for use.

2 Normative references

There are no normative references in this document.

3 Terms and definitions

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 <https://www.electropedia.org/>

3.1

access control

means to ensure that access to assets is authorized and restricted based on business and security requirements (3.56)

3.2

attack

attempt to destroy, expose, alter, disable, steal or gain unauthorized access to or make unauthorized use of an asset

3.3

audit

systematic, independent and documented *process* (3.54) for obtaining audit evidence and evaluating it objectively to determine the extent to which the audit criteria are fulfilled

Note 1 to entry: An audit can be an internal audit (first party) or an external audit (second party or third party), and it can be a combined audit (combining two or more disciplines).

Note 2 to entry: An internal audit is conducted by the organization itself, or by an external party on its behalf.

Note 3 to entry: "Audit evidence" and "audit criteria" are defined in ISO 19011.

3.4

audit scope

extent and boundaries of an *audit* ([3.3](#))

[SOURCE: ISO 19011:2011, 3.14, modified — Note 1 to entry has been deleted.]

3.5

authentication

provision of assurance that a claimed characteristic of an entity is correct

3.6

authenticity

property that an entity is what it claims to be

3.7

availability

property of being accessible and usable on demand by an authorized entity

3.8

base measure

measure ([3.42](#)) defined in terms of an attribute and the method for quantifying it

Note 1 to entry: A base measure is functionally independent of other *measures*.

[SOURCE: ISO/IEC/IEEE 15939:2017, 3.3, modified — Note 2 to entry has been deleted.]

3.9

competence

ability to apply knowledge and skills to achieve intended results

3.10

confidentiality

property that information is not made available or disclosed to unauthorized individuals, entities, or processes ([3.54](#))

3.11

conformity

fulfilment of a *requirement* ([3.56](#))

3.12

consequence

outcome of an *event* ([3.21](#)) affecting *objectives* ([3.49](#))

Note 1 to entry: An event can lead to a range of consequences.

Note 2 to entry: A consequence can be certain or uncertain and, in the context of information security, is usually negative.

Note 3 to entry: Consequences can be expressed qualitatively or quantitatively.

Note 4 to entry: Initial consequences can escalate through knock-on effects.

[SOURCE: ISO Guide 73:2009, 3.6.1.3, modified — Note 2 to entry has been changed after “and”.]

3.13

continual improvement

recurring activity to enhance *performance* ([3.52](#))

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3.14**control**

measure that is modifying *risk* (3.61)

Note 1 to entry: Controls include any *process* (3.54), *policy* (3.53), device, practice, or other actions which modify *risk* (3.61).

Note 2 to entry: It is possible that controls not always exert the intended or assumed modifying effect.

[SOURCE: ISO Guide 73:2009, 3.8.1.1 — Note 2 to entry has been changed.]

3.15**control objective**

statement describing what is to be achieved as a result of implementing *controls* (3.14)

3.16**correction**

action to eliminate a detected *nonconformity* (3.47)

3.17**corrective action**

action to eliminate the cause of a *nonconformity* (3.47) and to prevent recurrence

3.18**derived measure**

measure (3.42) that is defined as a function of two or more values of *base measures* (3.8)

[SOURCE: ISO/IEC/IEEE 15939:2017, 3.8, modified — Note 1 to entry has been deleted.]

3.19**documented information**

information required to be controlled and maintained by an *organization* (3.50) and the medium on which it is contained

Note 1 to entry: Documented information can be in any format and media and from any source.

Note 2 to entry: Documented information can refer to

- the *management system* (3.41), including related *processes* (3.54);
- information created in order for the *organization* (3.50) to operate (documentation);
- evidence of results achieved (records).

3.20**effectiveness**

extent to which planned activities are realized and planned results achieved

3.21**event**

occurrence or change of a particular set of circumstances

Note 1 to entry: An event can be one or more occurrences, and can have several causes.

Note 2 to entry: An event can consist of something not happening.

Note 3 to entry: An event can sometimes be referred to as an “incident” or “accident”.

[SOURCE: ISO Guide 73:2009, 3.5.1.3, modified — Note 4 to entry has been deleted.]

3.22

external context

external environment in which the organization seeks to achieve its *objectives* (3.49)

Note 1 to entry: External context can include the following:

- the cultural, social, political, legal, regulatory, financial, technological, economic, natural and competitive environment, whether international, national, regional or local;
- key drivers and trends having impact on the *objectives* of the *organization* (3.50);
- relationships with, and perceptions and values of, external *stakeholders* (3.37).

[SOURCE: ISO Guide 73:2009, 3.3.1.1]

3.23

governance of information security

system by which an *organization's* (3.50) *information security* (3.28) activities are directed and controlled

3.24

governing body

person or group of people who are accountable for the *performance* (3.52) and conformity of the *organization* (3.50)

Note 1 to entry: The governing body can, in some jurisdictions, be a board of directors.

3.25

indicator

measure (3.42) that provides an estimate or evaluation

3.26

information need

insight necessary to manage *objectives* (3.49), *goals, risks and problems*

[SOURCE: ISO/IEC/IEEE 15939:2017, 3.12]

3.27

information processing facilities

any information processing system, service or infrastructure, or the physical location housing it

3.28

information security

preservation of *confidentiality* (3.10), *integrity* (3.36) and *availability* (3.7) of information

Note 1 to entry: In addition, other properties, such as *authenticity* (3.6), *accountability*, *non-repudiation* (3.48), and *reliability* (3.55) can also be involved.

3.29

information security continuity

processes (3.54) and procedures for ensuring continued *information security* (3.28) operations

3.30

information security event

identified occurrence of a system, service or network state indicating a possible breach of *information security* (3.28) *policy* (3.53) or failure of *controls* (3.14), or a previously unknown situation that can be security relevant

3.31

information security incident

single or a series of unwanted or unexpected *information security events* (3.30) that have a significant probability of compromising business operations and threatening *information security* (3.28)

3.32**information security incident management**

set of *processes* (3.54) for detecting, reporting, assessing, responding to, dealing with, and learning from *information security incidents* (3.31)

3.33**information security management system (ISMS) professional**

person who establishes, implements, maintains and continuously improves one or more information security management system *processes* (3.54)

3.34**information sharing community**

group of *organizations* (3.50) that agree to share information

Note 1 to entry: An organization can be an individual.

3.35**information system**

set of applications, services, information technology assets, or other information-handling components

3.36**integrity**

property of accuracy and completeness

3.37**interested party** (preferred term)**stakeholder** (admitted term)

person or *organization* (3.50) that can affect, be affected by, or perceive itself to be affected by a decision or activity

3.38**internal context**

internal environment in which the *organization* (3.50) seeks to achieve its objectives

Note 1 to entry: Internal context can include:

- governance, organizational structure, roles and accountabilities;
- *policies* (3.53), *objectives* (3.49), and the strategies that are in place to achieve them;
- the capabilities, understood in terms of resources and knowledge (e.g. capital, time, people, *processes* (3.54), systems and technologies);
- *information systems* (3.35), information flows and decision-making *processes* (both formal and informal);
- relationships with, and perceptions and values of, internal *stakeholders* (3.37);
- the organization's culture;
- standards, guidelines and models adopted by the organization;
- form and extent of contractual relationships.

[SOURCE: ISO Guide 73:2009, 3.3.1.2]

3.39**level of risk**

magnitude of a *risk* (3.61) expressed in terms of the combination of *consequences* (3.12) and their *likelihood* (3.40)

[SOURCE: ISO Guide 73:2009, 3.6.1.8, modified — “or combination of risks” has been deleted in the definition.]

3.40

likelihood

chance of something happening

[SOURCE: ISO Guide 73:2009, 3.6.1.1, modified — Notes 1 and 2 to entry have been deleted.]

3.41

management system

set of interrelated or interacting elements of an *organization* (3.50) to establish *policies* (3.53) and *objectives* (3.49) and *processes* (3.54) to achieve those objectives

Note 1 to entry: A management system can address a single discipline or several disciplines.

Note 2 to entry: The system elements include the organization's structure, roles and responsibilities, planning and operation.

Note 3 to entry: The scope of a management system may include the whole of the organization, specific and identified functions of the organization, specific and identified sections of the organization, or one or more functions across a group of organizations.

3.42

measure

variable to which a value is assigned as the result of *measurement* (3.43)

[SOURCE: ISO/IEC/IEEE 15939:2017, 3.15, modified — Note 2 to entry has been deleted.]

3.43

measurement

process (3.54) to determine a value

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3.44

measurement function

algorithm or calculation performed to combine two or more *base measures* (3.8)

[SOURCE: ISO/IEC/IEEE 15939:2017, 3.20]

3.45

measurement method

logical sequence of operations, described generically, used in quantifying an attribute with respect to a specified scale

Note 1 to entry: The type of measurement method depends on the nature of the operations used to quantify an *attribute* (3.4). Two types can be distinguished:

- subjective: quantification involving human judgment; and
- objective: quantification based on numerical rules.

[SOURCE: ISO/IEC/IEEE 15939:2017, 3.21, modified — Note 2 to entry has been deleted.]

3.46

monitoring

determining the status of a system, a *process* (3.54) or an activity

Note 1 to entry: To determine the status, there may be a need to check, supervise or critically observe.

3.47

nonconformity

non-fulfilment of a *requirement* (3.56)

3.48

non-repudiation

ability to prove the occurrence of a claimed *event* (3.21) or action and its originating entities