
**Information technology — Security
techniques — Information security
management systems — Requirements**

*Technologies de l'information — Techniques de sécurité — Systèmes
de gestion de sécurité de l'information — Exigences*

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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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of the joint technical committee is to prepare International Standards. Draft International Standards adopted by the joint technical committee are circulated to national bodies for voting. Publication as an International Standard requires approval by at least 75 % of the national bodies casting a vote.

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.

ISO/IEC 27001 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *IT Security techniques*.

0 Introduction

0.1 General

This International Standard has been prepared to provide a model for establishing, implementing, operating, monitoring, reviewing, maintaining and improving an Information Security Management System (ISMS). The adoption of an ISMS should be a strategic decision for an organization. The design and implementation of an organization's ISMS is influenced by their needs and objectives, security requirements, the processes employed and the size and structure of the organization. These and their supporting systems are expected to change over time. It is expected that an ISMS implementation will be scaled in accordance with the needs of the organization, e.g. a simple situation requires a simple ISMS solution.

This International Standard can be used in order to assess conformance by interested internal and external parties.

0.2 Process approach

This International Standard adopts a process approach for establishing, implementing, operating, monitoring, reviewing, maintaining and improving an organization's ISMS.

An organization needs to identify and manage many activities in order to function effectively. Any activity using resources and managed in order to enable the transformation of inputs into outputs can be considered to be a process. Often the output from one process directly forms the input to the next process.

The application of a system of processes within an organization, together with the identification and interactions of these processes, and their management, can be referred to as a "process approach".

The process approach for information security management presented in this International Standard encourages its users to emphasize the importance of:

- a) understanding an organization's information security requirements and the need to establish policy and objectives for information security;
- b) implementing and operating controls to manage an organization's information security risks in the context of the organization's overall business risks;
- c) monitoring and reviewing the performance and effectiveness of the ISMS; and
- d) continual improvement based on objective measurement.

This International Standard adopts the "Plan-Do-Check-Act" (PDCA) model which is applied to structure all ISMS processes. Figure 1 illustrates how an ISMS takes as input the information security requirements and expectations of the interested parties and through the necessary actions and processes produces information security outcomes that meets those requirements and expectations. Figure 1 also illustrates the links in the processes presented in Clauses 4, 5, 6, 7 and 8.

The adoption of the PDCA model will also reflect the principles as set out in the OECD Guidelines (2002)¹⁾ governing the security of information systems and networks. This International Standard provides a robust model for implementing the principles in those guidelines governing risk assessment, security design and implementation, security management and reassessment.

1) OECD Guidelines for the Security of Information Systems and Networks — Towards a Culture of Security. Paris: OECD, July 2002. www.oecd.org

EXAMPLE 1

A requirement might be that breaches of information security will not cause serious financial damage to an organization and/or cause embarrassment to the organization.

EXAMPLE 2

An expectation might be that if a serious incident occurs — perhaps hacking of an organization's eBusiness web site — there should be people with sufficient training in appropriate procedures to minimize the impact.

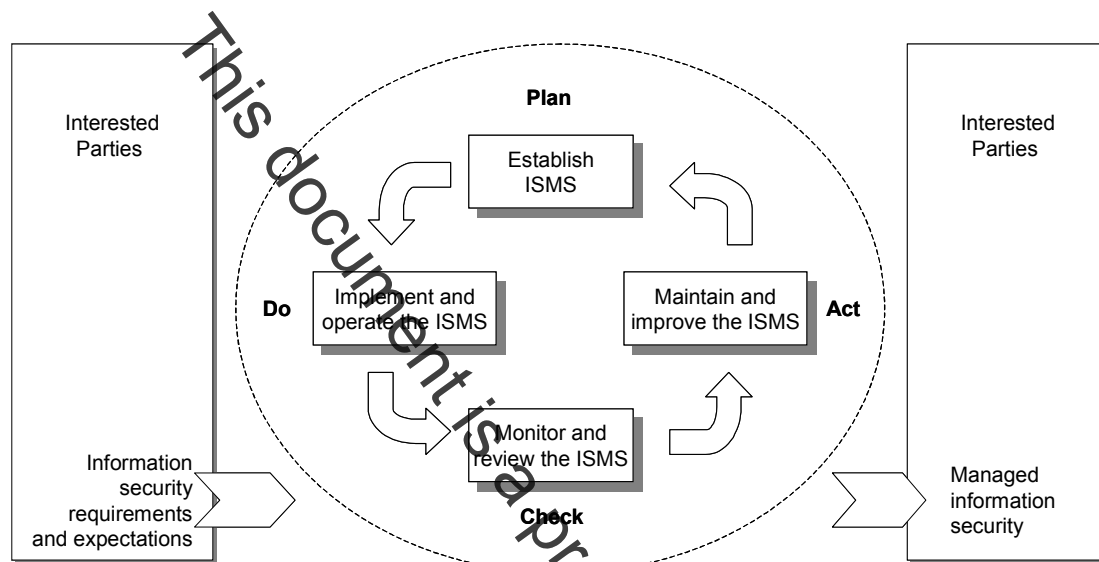


Figure 1 — PDCA model applied to ISMS processes

Plan (establish the ISMS)	Establish ISMS policy, objectives, processes and procedures relevant to managing risk and improving information security to deliver results in accordance with an organization's overall policies and objectives.
Do (implement and operate the ISMS)	Implement and operate the ISMS policy, controls, processes and procedures.
Check (monitor and review the ISMS)	Assess and, where applicable, measure process performance against ISMS policy, objectives and practical experience and report the results to management for review.
Act (maintain and improve the ISMS)	Take corrective and preventive actions, based on the results of the internal ISMS audit and management review or other relevant information, to achieve continual improvement of the ISMS.

0.3 Compatibility with other management systems

This International Standard is aligned with ISO 9001:2000 and ISO 14001:2004 in order to support consistent and integrated implementation and operation with related management standards. One suitably designed management system can thus satisfy the requirements of all these standards. Table C.1 illustrates the relationship between the clauses of this International Standard, ISO 9001:2000 and ISO 14001:2004.

This International Standard is designed to enable an organization to align or integrate its ISMS with related management system requirements.

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IMPORTANT — This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application. Compliance with an International Standard does not in itself confer immunity from legal obligations.

1 Scope

1.1 General

This International Standard covers all types of organizations (e.g. commercial enterprises, government agencies, non-profit organizations). This International Standard specifies the requirements for establishing, implementing, operating, monitoring, reviewing, maintaining and improving a documented ISMS within the context of the organization's overall business risks. It specifies requirements for the implementation of security controls customized to the needs of individual organizations or parts thereof.

The ISMS is designed to ensure the selection of adequate and proportionate security controls that protect information assets and give confidence to interested parties.

NOTE 1: References to 'business' in this International Standard should be interpreted broadly to mean those activities that are core to the purposes for the organization's existence.

NOTE 2: ISO/IEC 17799 provides implementation guidance that can be used when designing controls.

1.2 Application

The requirements set out in this International Standard are generic and are intended to be applicable to all organizations, regardless of type, size and nature. Excluding any of the requirements specified in Clauses 4, 5, 6, 7, and 8 is not acceptable when an organization claims conformity to this International Standard.

Any exclusion of controls found to be necessary to satisfy the risk acceptance criteria needs to be justified and evidence needs to be provided that the associated risks have been accepted by accountable persons. Where any controls are excluded, claims of conformity to this International Standard are not acceptable unless such exclusions do not affect the organization's ability, and/or responsibility, to provide information security that meets the security requirements determined by risk assessment and applicable legal or regulatory requirements.

NOTE: If an organization already has an operative business process management system (e.g. in relation with ISO 9001 or ISO 14001), it is preferable in most cases to satisfy the requirements of this International Standard within this existing management system.

2 Normative references

The following referenced documents are indispensable for the application 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 17799:2005, *Information technology — Security techniques — Code of practice for information security management*