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Information security, cybersecurity and privacy protection — Information security controls

*Sécurité de l'information, cybersécurité et protection de la vie
privée — Mesures de sécurité de l'information*

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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 or www.iec.ch/members_experts/refdocs).

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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. In the IEC, see www.iec.ch/understanding-standards.

This document was prepared by Joint Technical Committee 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 27002:2013), which has been technically revised. It also incorporates the Technical Corrigenda ISO/IEC 27002:2013/Cor. 1:2014 and ISO/IEC 27002:2013/Cor. 2:2015.

The main changes are as follows:

- the title has been modified;
- the structure of the document has been changed, presenting the controls using a simple taxonomy and associated attributes;
- some controls have been merged, some deleted and several new controls have been introduced. The complete correspondence can be found in [Annex B](#).

This corrected version of ISO/IEC 27002:2022 incorporates the following corrections:

- non-functioning hyperlinks throughout the document have been restored;
- in the introductory table in [subsection 5.22](#) and in [Table A.1](#) (row 5.22), "#information_security_assurance" has been moved from the column headed "Security domains" to the column headed "Operational capabilities".

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 and www.iec.ch/national-committees.

Introduction

0.1 Background and context

This document is designed for organizations of all types and sizes. It is to be used as a reference for determining and implementing controls for information security risk treatment in an information security management system (ISMS) based on ISO/IEC 27001. It can also be used as a guidance document for organizations determining and implementing commonly accepted information security controls. Furthermore, this document is intended for use in developing industry and organization-specific information security management guidelines, taking into consideration their specific information security risk environment(s). Organizational or environment-specific controls other than those included in this document can be determined through risk assessment as necessary.

Organizations of all types and sizes (including public and private sector, commercial and non-profit) create, collect, process, store, transmit and dispose of information in many forms, including electronic, physical and verbal (e.g. conversations and presentations).

The value of information goes beyond written words, numbers and images: knowledge, concepts, ideas and brands are examples of intangible forms of information. In an interconnected world, information and other associated assets deserve or require protection against various risk sources, whether natural, accidental or deliberate.

Information security is achieved by implementing a suitable set of controls, including policies, rules, processes, procedures, organizational structures and software and hardware functions. To meet its specific security and business objectives, the organization should define, implement, monitor, review and improve these controls where necessary. An ISMS such as that specified in ISO/IEC 27001 takes a holistic, coordinated view of the organization's information security risks in order to determine and implement a comprehensive suite of information security controls within the overall framework of a coherent management system.

Many information systems, including their management and operations, have not been designed to be secure in terms of an ISMS as specified in ISO/IEC 27001 and this document. The level of security that can be achieved only through technological measures is limited and should be supported by appropriate management activities and organizational processes. Identifying which controls should be in place requires careful planning and attention to detail while carrying out risk treatment.

A successful ISMS requires support from all personnel in the organization. It can also require participation from other interested parties, such as shareholders or suppliers. Advice from subject matter experts can also be needed.

A suitable, adequate and effective information security management system provides assurance to the organization's management and other interested parties that their information and other associated assets are kept reasonably secure and protected against threats and harm, thereby enabling the organization to achieve the stated business objectives.

0.2 Information security requirements

It is essential that an organization determines its information security requirements. There are three main sources of information security requirements:

- a) the assessment of risks to the organization, taking into account the organization's overall business strategy and objectives. This can be facilitated or supported through an information security-specific risk assessment. This should result in the determination of the controls necessary to ensure that the residual risk to the organization meets its risk acceptance criteria;
- b) the legal, statutory, regulatory and contractual requirements that an organization and its interested parties (trading partners, service providers, etc.) have to comply with and their socio-cultural environment;