

SLOVENSKI STANDARD
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Informacijska tehnologija - Varnostne tehnike - Pravila obnašanja pri nadzoru varnosti informacij, ki temeljijo na ISO/IEC 27002 za telekomunikacijske organizacije (ISO/IEC 27011:2016)

Information technology - Security techniques - Code of practice for Information security controls based on ISO/IEC 27002 for telecommunications organizations (ISO/IEC 27011:2016)

Informationstechnik - Sicherheitsverfahren - Leitfaden für Informationssicherheitsmaßnahmen auf Grundlage von ISO/IEC 27002 für Telekommunikationsorganisationen (ISO/IEC 27011:2016)

Technologies de l'information - Techniques de sécurité - Code de bonne pratique pour les contrôles de la sécurité de l'information fondés sur l'ISO/IEC 27002 pour les organismes de télécommunications (ISO/IEC 27011:2016)

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INTERNATIONAL STANDARD

ISO/IEC 27011

Second edition
2016-12-01

Information technology — Security techniques — Code of practice for Information security controls based on ISO/IEC 27002 for telecommunications organizations

*Technologies de l'information — Techniques de sécurité — Code de
bonne pratique pour les contrôles de la sécurité de l'information fondés
sur l'ISO/IEC 27002 pour les organismes de télécommunications*

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Foreword

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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.

This second edition cancels and replaces first edition of ISO/IEC 27011:2008 which has been technically revised.

ISO/IEC 27011 was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 27, *IT Security techniques*, in collaboration with ITU-T. The identical text is published as Rec. ITU-T X.1051.

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Introduction

This Recommendation | International Standard provides interpretation guidelines for the implementation and management of information security controls in telecommunications organizations based on ISO/IEC 27002.

Telecommunications organizations provide telecommunications services by facilitating the communications of customers through their infrastructure. In order to provide telecommunications services, telecommunications organizations need to interconnect and/or share their services and facilities and/or use the services and facilities of other telecommunications organizations. Furthermore, the site location, such as radio sites, antenna locations, ground cables and utility provision (power, water), may be accessed not only by the organization's staff, but also by contractors and providers external to the organization.

Therefore, the management of information security in telecommunications organizations is complex, potentially:

- depending on external parties;
- having to cover all areas of network infrastructure, services applications and other facilities;
- including a range of telecommunications technologies (e.g., wired, wireless or broadband);
- supporting a wide range of operational scales, service areas and service types.

In addition to the application of security objectives and controls described in ISO/IEC 27002, telecommunications organizations may need to implement extra controls to ensure confidentiality, integrity, availability and any other security property of telecommunications in order to manage security risk in an adequate fashion.

1) Confidentiality

Protecting confidentiality of information related to telecommunications from unauthorized disclosure. This implies non-disclosure of communications in terms of the existence, the content, the source, the destination and the date and time of communicated information.

It is critical that telecommunications organizations ensure that the non-disclosure of communications being handled by them is not breached. This includes ensuring that persons engaged by the telecommunications organization maintain the confidentiality of any information regarding others that may have come to be known during their work duties.

NOTE – The term "secrecy of communications" is used in some countries in the context of "non-disclosure of communications".

2) Integrity

Protecting the integrity of telecommunications information includes controlling the installation and use of telecommunications facilities to ensure the authenticity, accuracy and completeness of information transmitted, relayed or received by wire, radio or any other method.

3) Availability

Availability of telecommunications information includes ensuring that access to facilities and the medium used for the provision of communication services is authorized, regardless of whether communications is provided by wire, radio or any other method. Typically, telecommunications organizations give priority to essential communications in case of emergencies, managing unavailability of less important communications in compliance with regulatory requirements.

Audience

The audience of this Recommendation | International Standard consists of telecommunications organizations and those responsible for information security; together with security vendors, auditors, telecommunications terminal vendors and application content providers. This Recommendation | International Standard provides a common set of general security control objectives based on ISO/IEC 27002, telecommunications sector-specific controls and information security management guidelines allowing for the selection and implementation of such controls.

INTERNATIONAL STANDARD ITU-T RECOMMENDATION

Information technology – Security techniques – Code of practice for information security controls based on ISO/IEC 27002 for telecommunications organizations

1 Scope

The scope of this Recommendation | International Standard is to define guidelines supporting the implementation of information security controls in telecommunications organizations.

The adoption of this Recommendation | International Standard will allow telecommunications organizations to meet baseline information security management requirements of confidentiality, integrity, availability and any other relevant security property.

2 Normative references

The following Recommendations and International Standards contain provisions which, through reference in this text, constitute provisions of this Recommendation | International Standard. At the time of publication, the editions indicated were valid. All Recommendations and Standards are subject to revision, and parties to agreements based on this Recommendation | International Standard are encouraged to investigate the possibility of applying the most recent edition of the Recommendations and Standards listed below. Members of IEC and ISO maintain registers of currently valid International Standards. The Telecommunication Standardization Bureau of the ITU maintains a list of currently valid ITU-T Recommendations.

- ISO/IEC 27000, *Information technology – Security techniques – Information security management systems – Overview and vocabulary*.
- ISO/IEC 27002:2013, *Information technology – Security techniques – Code of practice for information security controls*.

3 Definitions and abbreviations

3.1 Definitions

For the purposes of this Recommendation | International Standard, the definitions given in ISO/IEC 27000 and the following apply:

- 3.1.1 co-location:** Installation of telecommunications facilities on the premises of other telecommunications carriers.
- 3.1.2 communication centre:** Building where facilities for providing telecommunications business are sited.
- 3.1.3 essential communications:** Communications whose contents are necessary for the prevention of or relief from disasters and for the maintenance of public order in adverse conditions.
- 3.1.4 non-disclosure of communications:** Requirement not to disclose the existence, the content, the source, the destination and the date and time of communicated information.
- 3.1.5 priority call:** Telecommunications made by specific terminals in the event of emergencies, which should be handled with priority by restricting public calls.
NOTE – The specific terminals may span different services (voice over Internet protocol (VoIP), public switched telephone network (PSTN) voice, Internet protocol (IP) data traffic, etc.) for wired and wireless networks.
- 3.1.6 telecommunications applications:** Applications such as Voice over IP (VoIP) that are consumed by end-users and built upon the network based services.
- 3.1.7 telecommunications business:** Business to provide telecommunications services in order to meet the demand of others.
- 3.1.8 telecommunications equipment room:** A secure location or room within a general building where equipment for providing telecommunications business are sited.
- 3.1.9 telecommunications facilities:** Machines, equipment, wire and cables, physical buildings or other electrical facilities for the operation of telecommunications.

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3.1.10 telecommunications organizations: Business entities who provide telecommunications services in order to meet the demand of others.

3.1.11 telecommunication records: Information concerning the parties in a communication excluding the contents of the communication, and the time, and duration of the telecommunication that took place.

3.1.12 telecommunications services: Communications using telecommunications facilities, or any other means of providing communications either between telecommunications service users or telecommunications service customers.

3.1.13 telecommunications service customer: Person or organization who enters into a contract with telecommunications organizations to be offered telecommunications services by them.

3.1.14 telecommunications service user: Person or organization who utilizes telecommunications services.

3.1.15 terminal facilities: Telecommunications facilities which are to be connected to one end of telecommunications circuit facilities and part of which is to be installed on the same premises (including the areas regarded as the same premises) or in the same building where any other part thereof is also to be installed.

3.1.16 user: Person or organization who utilizes information processing facilities or systems, e.g., employee, contractor or third party user.

3.2 Abbreviations

For the purposes of this Recommendation | International Standard, the following abbreviations apply:

CIA	Confidentiality, Integrity and Availability
CNI	Critical National Infrastructure
DDoS	Distributed Denial of Service
DNS	Domain Name System
DoS	Denial of Service
HVAC	Heating, Ventilation, and Air Conditioning
IP	Internet Protocol
IRC	Internet Relay Chat
ISAC	Information Sharing and Analysis Centre
ISMS	Information Security Management System
NMS	Network Management System
OAM&P	Operations, Administration, Maintenance and Provisioning
PSTN	Public Switched Telephone Network
SIP	Session Initiation Protocol
SLA	Service Level Agreement
SMS	Short Message Service
SOA	Statement of Applicability
URL	Uniform Resource Locator
VoIP	Voice over Internet Protocol

4 Overview

4.1 Structure of this Recommendation | International Standard

This Recommendation | International Standard has been structured in a format similar to ISO/IEC 27002. In cases where objectives and controls specified in ISO/IEC 27002 are applicable without a need for any additional information, only a reference is provided to ISO/IEC 27002. A telecommunications sector-specific set of control and implementation guidance is described in normative Annex A.

In cases where controls need additional guidance specific to telecommunications, the ISO/IEC 27002 control is repeated without modification, followed by the specific telecommunications guidance related to this control. Telecommunications sector specific guidance and information is included in the following clauses:

- Organization of information security (clause 6)