

STN	Informačné technológie Bezpečnostné metódy Rámec pre riadenie prístupu (ISO/IEC 29146: 2016, vrátane zmeny Amd 1: 2022)	STN EN ISO/IEC 29146 97 4133
------------	--	--

Information technology - Security techniques - A framework for access management (ISO/IEC 29146:2016, including Amd 1:2022)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 06/23

Obsahuje: EN ISO/IEC 29146:2023, ISO/IEC 29146:2016, ISO/IEC 29146:2016/Amd 1:2022

Oznámením tejto normy sa ruší
STN ISO/IEC 29146 (97 4133) z júla 2021

136992

EUROPEAN STANDARD

EN ISO/IEC 29146

NORME EUROPÉENNE

EUROPÄISCHE NORM

April 2023

ICS 35.030

English version

Information technology - Security techniques - A
framework for access management (ISO/IEC 29146:2016,
including Amd 1:2022)

Technologies de l'information - Techniques de sécurité
- Cadre pour la gestion de l'accès (ISO/IEC 29146:2016,
y compris Amd 1:2022)

Informationstechnologie - Sicherheitstechniken - Ein
Rahmen für die Zugangsverwaltung (ISO/IEC
29146:2016, einschließlich Amd 1:2022)

This European Standard was approved by CEN on 24 March 2023.

CEN and CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN and CENELEC member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN and CENELEC member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN and CENELEC members are the national standards bodies and national electrotechnical committees of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



**CEN-CENELEC Management Centre:
Rue de la Science 23, B-1040 Brussels**

EN ISO/IEC 29146:2023 (E)

Contents	Page
European foreword.....	3

European foreword

The text of ISO/IEC 29146:2016, including Amd 1:2022 has been prepared by Technical Committee ISO/IEC JTC 1 "Information technology" of the International Organization for Standardization (ISO) and has been taken over as EN ISO/IEC 29146:2023 by Technical Committee CEN-CENELEC/JTC 13 "Cybersecurity and Data Protection" the secretariat of which is held by DIN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by October 2023, and conflicting national standards shall be withdrawn at the latest by October 2023.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN-CENELEC shall not be held responsible for identifying any or all such patent rights.

Any feedback and questions on this document should be directed to the users' national standards body. A complete listing of these bodies can be found on the CEN and CENELEC websites.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO/IEC 29146:2016, including Amd 1:2022 has been approved by CEN-CENELEC as EN ISO/IEC 29146:2023 without any modification.

**INTERNATIONAL
STANDARD**

**ISO/IEC
29146**

First edition
2016-06-01

**Information technology — Security
techniques — A framework for access
management**

*Technologies de l'information — Techniques de sécurité — Cadre
pour gestion d'accès*



Reference number
ISO/IEC 29146:2016(E)

© ISO/IEC 2016

ISO/IEC 29146:2016(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2016, Published in Switzerland

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

	Page
Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	1
4 Abbreviated terms	4
5 Concepts	5
5.1 A model for controlling access to resources.....	5
5.1.1 Overview.....	5
5.1.2 Relationship between identity management system and access management system.....	6
5.1.3 Security characteristics of the access method.....	7
5.2 Relationships between logical and physical access control.....	8
5.3 Access management system functions and processes.....	8
5.3.1 Overview.....	8
5.3.2 Access control policy.....	9
5.3.3 Privilege management.....	10
5.3.4 Policy-related attribute information management.....	11
5.3.5 Authorization.....	12
5.3.6 Monitoring management.....	12
5.3.7 Alarm management.....	13
5.3.8 Federated access control.....	13
6 Reference architecture	14
6.1 Overview.....	14
6.2 Basic components of an access management system.....	15
6.2.1 Authentication endpoint.....	15
6.2.2 Policy decision point (PDP).....	15
6.2.3 Policy information point (PIP).....	15
6.2.4 Policy administration point (PAP).....	15
6.2.5 Policy enforcement point (PEP).....	16
6.3 Additional service components.....	16
6.3.1 General.....	16
6.3.2 Subject centric implementation.....	16
6.3.3 Enterprise centric implementation.....	18
7 Additional requirements and concerns	19
7.1 Access to administrative information.....	19
7.2 AMS models and policy issues.....	19
7.2.1 Access control models.....	19
7.2.2 Policies in access management.....	20
7.3 Legal and regulatory requirements.....	20
8 Practice	20
8.1 Processes.....	20
8.1.1 Authorization process.....	20
8.1.2 Privilege management process.....	21
8.2 Threats.....	21
8.3 Control objectives.....	22
8.3.1 General.....	22
8.3.2 Validating the access management framework.....	22
8.3.3 Validating the access management system.....	25
8.3.4 Validating the maintenance of an implemented AMS.....	29
Annex A (informative) Current access models	31

ISO/IEC 29146:2016(E)

Bibliography	35
---------------------------	-----------

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, *IT Security techniques*.

ISO/IEC 29146:2016(E)

Introduction

Management of information security is a complex task that is based primarily on risk-based approach and that is supported by several security techniques. The complexity is handled by several supporting systems that can automatically apply a set of rules or policies consistently.

Within the management of information security, access management plays a key role in the administration of the relationships between the accessing party (subjects that can be human or non-human entities) and the information technology resources. With the development of the Internet, information technology resources can be located over distributed networks and the access to them needs to be managed in conformity under a policy and is expected to have common terms and models as a framework on access management.

Identity management is also an important part of access management. Access management is mediated through the identification and authentication of subjects that seek to access information technology resources. This International Standard depends on the existence of an underlying identity management system or an identity management infrastructure (see references in [Clause 2](#)).

The framework for access management is one part of an overall identity and access management framework. The other part is the framework for identity management, which is defined in ISO/IEC 24760.

This International Standard describes the concepts, actors, components, reference architecture, functional requirements and practices for access control. Example access control models are included.

It focuses mainly on access control for a single organization, but adds other considerations for access control in collaborative arrangements across multiple organizations.

Information technology — Security techniques — A framework for access management

1 Scope

This International Standard defines and establishes a framework for access management (AM) and the secure management of the process to access information and Information and Communications Technologies (ICT) resources, associated with the accountability of a subject within some context.

This International Standard provides concepts, terms and definitions applicable to distributed access management techniques in network environments.

This International Standard also provides explanations about related architecture, components and management functions.

The subjects involved in access management might be uniquely recognized to access information systems, as defined in ISO/IEC 24760.

The nature and qualities of physical access control involved in access management systems are outside the scope of this International Standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 24760-1:2011, *Information technology — Security techniques — A framework for identity management — Part 1: Terminology and concepts*

ISO/IEC 24760-2:2015, *Information technology — Security techniques — A framework for identity management — Part 2: Reference architecture and requirements*

ISO/IEC 29115:2013, *Information technology — Security techniques — Entity authentication assurance framework*

ISO/IEC 27002:2013, *Information technology — Security techniques — Code of practice for information security controls*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN