

<b>STN P</b>	<b>Informačná bezpečnosť priemyselných automatizačných a riadiacich systémov Časť 6-1: Metodika hodnotenia bezpečnosti podľa IEC 62443-2-4</b>	<b>STN P CLC IEC/TS 62443-6-1</b>  <b>36 9060</b>
------------------	--	---

Security for industrial automation and control systems - Part 6-1: Security evaluation methodology for IEC 62443-2-4

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. 01/25

Obsahuje: CLC IEC/TS 62443-6-1:2024, IEC TS 62443-6-1:2024

**140042**

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2025  
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii  
v znení neskorších predpisov.



obsahuje  
farebné  
strany



TECHNICAL SPECIFICATION  
SPÉCIFICATION TECHNIQUE  
TECHNISCHE SPEZIFIKATION

**CLC IEC/TS 62443-6-1**

December 2024

ICS 25.040.40

English Version

**Security for industrial automation and control systems - Part 6-1:  
Security evaluation methodology for IEC 62443-2-4  
(IEC/TS 62443-6-1:2024)**

Sécurité des automatismes industriels et des systèmes de commande - Partie 6-1: Méthodologie d'évaluation de la sécurité pour la IEC 62443-2-4  
(IEC/TS 62443-6-1:2024)

IT-Sicherheit für industrielle Automatisierungssysteme - Teil 6-1: Security-Evaluierungsmethodik für IEC 62443-2-4  
(IEC/TS 62443-6-1:2024)

This Technical Specification was approved by CENELEC on 2024-12-09.

CENELEC members are required to announce the existence of this TS in the same way as for an EN and to make the TS available promptly at national level in an appropriate form. It is permissible to keep conflicting national standards in force.

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



European Committee for Electrotechnical Standardization  
Comité Européen de Normalisation Electrotechnique  
Europäisches Komitee für Elektrotechnische Normung

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

**CLC IEC/TS 62443-6-1:2024 (E)****European foreword**

This document (CLC IEC/TS 62443-6-1:2024) consists of the text of document IEC/TS 62443-6-1:2024, prepared by IEC/TC 65 "Industrial-process measurement, control and automation".

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. 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 committee. A complete listing of these bodies can be found on the CENELEC website.

**Endorsement notice**

The text of the International Technical Specification IEC/TS 62443-6-1:2024 was approved by CENELEC as a European Technical Specification without any modification.

In the official version, for Bibliography, the following notes have to be added for the standard indicated:

IEC/TS 62443-1-5      NOTE Approved as CLC IEC/TS 62443-1-5

ISO/IEC 17000:2020      NOTE Approved as EN ISO/IEC 17000:2020 (not modified)

ISO/IEC 18045:2022      NOTE Approved as EN ISO/IEC 18045:2023 (not modified)

ISO 9000:2015      NOTE Approved as EN ISO 9000:2015 (not modified)

**Annex ZA**  
(normative)**Normative references to international publications  
with their corresponding European publications**

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

NOTE 1 Where an International Publication has been modified by common modifications, indicated by (mod), the relevant EN/HD applies.

NOTE 2 Up-to-date information on the latest versions of the European Standards listed in this annex is available here: [www.cencenelec.eu](http://www.cencenelec.eu).

<u>Publication</u>	<u>Year</u>	<u>Title</u>	<u>EN/HD</u>	<u>Year</u>
IEC 62443-2-4	2015	Security for industrial automation and control systems – Part 2-4: Security program requirements for IACS service providers	EN 62443-2-4	2019
+ A1	2017		+ A1	2019



IEC TS 62443-6-1

Edition 1.0 2024-03

# TECHNICAL SPECIFICATION



**Security for industrial automation and control systems –  
Part 6-1: Security evaluation methodology for IEC 62443-2-4**





**THIS PUBLICATION IS COPYRIGHT PROTECTED**  
**Copyright © 2024 IEC, Geneva, Switzerland**

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from either IEC or IEC's member National Committee in the country of the requester. If you have any questions about IEC copyright or have an enquiry about obtaining additional rights to this publication, please contact the address below or your local IEC member National Committee for further information.

IEC Secretariat  
3, rue de Varembé  
CH-1211 Geneva 20  
Switzerland

Tel.: +41 22 919 02 11  
[info@iec.ch](mailto:info@iec.ch)  
[www.iec.ch](http://www.iec.ch)

#### **About the IEC**

The International Electrotechnical Commission (IEC) is the leading global organization that prepares and publishes International Standards for all electrical, electronic and related technologies.

#### **About IEC publications**

The technical content of IEC publications is kept under constant review by the IEC. Please make sure that you have the latest edition, a corrigendum or an amendment might have been published.

#### **IEC publications search - [webstore.iec.ch/advsearchform](http://webstore.iec.ch/advsearchform)**

The advanced search enables to find IEC publications by a variety of criteria (reference number, text, technical committee, ...). It also gives information on projects, replaced and withdrawn publications.

#### **IEC Just Published - [webstore.iec.ch/justpublished](http://webstore.iec.ch/justpublished)**

Stay up to date on all new IEC publications. Just Published details all new publications released. Available online and once a month by email.

#### **IEC Customer Service Centre - [webstore.iec.ch/csc](http://webstore.iec.ch/csc)**

If you wish to give us your feedback on this publication or need further assistance, please contact the Customer Service Centre: [sales@iec.ch](mailto:sales@iec.ch).

#### **IEC Products & Services Portal - [products.iec.ch](http://products.iec.ch)**

Discover our powerful search engine and read freely all the publications previews, graphical symbols and the glossary. With a subscription you will always have access to up to date content tailored to your needs.

#### **Electropedia - [www.electropedia.org](http://www.electropedia.org)**

The world's leading online dictionary on electrotechnology, containing more than 22 500 terminological entries in English and French, with equivalent terms in 25 additional languages. Also known as the International Electrotechnical Vocabulary (IEV) online.



# TECHNICAL SPECIFICATION



---

**Security for industrial automation and control systems –  
Part 6-1: Security evaluation methodology for IEC 62443-2-4**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

---

ICS 25.040.40

ISBN 978-2-8322-8328-8

**Warning! Make sure that you obtained this publication from an authorized distributor.**

## CONTENTS

FOREWORD .....	3
INTRODUCTION .....	5
1 Scope .....	6
2 Normative references .....	6
3 Terms, definitions and abbreviated terms .....	6
3.1 Terms and definitions .....	6
3.2 Abbreviated terms .....	8
4 Overview .....	9
5 Methodology for the evaluation .....	9
5.1 Scoping of the subject under evaluation (SuE) .....	9
5.2 Content of conformity statements and conformance evidence .....	9
5.3 Evaluation of conformity statement and conformance evidence .....	10
5.4 Particular requirements for evaluations related to ML-4 .....	10
6 Table used for evaluation .....	10
6.1 Overview .....	10
6.2 Evaluation criteria .....	11
6.3 Conformance evidence related to maturity level ML-1 .....	11
6.4 Conformance evidence related to maturity level ML-2 .....	11
6.5 Conformance evidence related to maturity level ML-3 .....	11
6.6 Conformance evidence related to maturity level ML-4 .....	12
6.7 Overview of evaluation criteria and examples of conformance evidence (Table 1) .....	13
Annex A (informative) Legend for maturity levels .....	131
Bibliography .....	132
Table 1 – Overview of evaluation criteria and examples of conformance evidence .....	13

## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## SECURITY FOR INDUSTRIAL AUTOMATION AND CONTROL SYSTEMS –

## Part 6-1: Security evaluation methodology for IEC 62443-2-4

## FOREWORD

- 1) The International Electrotechnical Commission (IEC) is a worldwide organization for standardization comprising all national electrotechnical committees (IEC National Committees). The object of IEC is to promote international co-operation on all questions concerning standardization in the electrical and electronic fields. To this end and in addition to other activities, IEC publishes International Standards, Technical Specifications, Technical Reports, Publicly Available Specifications (PAS) and Guides (hereafter referred to as "IEC Publication(s)"). Their preparation is entrusted to technical committees; any IEC National Committee interested in the subject dealt with may participate in this preparatory work. International, governmental and non-governmental organizations liaising with the IEC also participate in this preparation. IEC collaborates closely with the International Organization for Standardization (ISO) in accordance with conditions determined by agreement between the two organizations.
- 2) The formal decisions or agreements of IEC on technical matters express, as nearly as possible, an international consensus of opinion on the relevant subjects since each technical committee has representation from all interested IEC National Committees.
- 3) IEC Publications have the form of recommendations for international use and are accepted by IEC National Committees in that sense. While all reasonable efforts are made to ensure that the technical content of IEC Publications is accurate, IEC cannot be held responsible for the way in which they are used or for any misinterpretation by any end user.
- 4) In order to promote international uniformity, IEC National Committees undertake to apply IEC Publications transparently to the maximum extent possible in their national and regional publications. Any divergence between any IEC Publication and the corresponding national or regional publication shall be clearly indicated in the latter.
- 5) IEC itself does not provide any attestation of conformity. Independent certification bodies provide conformity assessment services and, in some areas, access to IEC marks of conformity. IEC is not responsible for any services carried out by independent certification bodies.
- 6) All users should ensure that they have the latest edition of this publication.
- 7) No liability shall attach to IEC or its directors, employees, servants or agents including individual experts and members of its technical committees and IEC National Committees for any personal injury, property damage or other damage of any nature whatsoever, whether direct or indirect, or for costs (including legal fees) and expenses arising out of the publication, use of, or reliance upon, this IEC Publication or any other IEC Publications.
- 8) Attention is drawn to the Normative references cited in this publication. Use of the referenced publications is indispensable for the correct application of this publication.
- 9) IEC draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). IEC takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, IEC had not received notice of (a) patent(s), which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at <https://patents.iec.ch>. IEC shall not be held responsible for identifying any or all such patent rights.

IEC TS 62443-6-1 has been prepared by IEC technical committee TC 65: Industrial-process measurement, control and automation. It is a Technical Specification.

The text of this Technical Specification is based on the following documents:

Draft	Report on voting
65/1030/DTS	65/1042A/RVDTS

Full information on the voting for its approval can be found in the report on voting indicated in the above table.

The language used for the development of this Technical Specification is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at [https://www.iec.ch/members\\_experts/refdocs](https://www.iec.ch/members_experts/refdocs). The main document types developed by IEC are described in greater detail at <https://www.iec.ch/standardsdev/publications>.

A list of all parts in the IEC 62443 series, published under the general title *Security for industrial automation and control systems*, can be found on the IEC website.

The committee has decided that the contents of this document will remain unchanged until the stability date indicated on the IEC website under [webstore.iec.ch](https://webstore.iec.ch) in the data related to the specific document. At this date, the document will be

- reconfirmed,
- withdrawn, or
- revised.

**IMPORTANT – The "colour inside" logo on the cover page of this document indicates that it contains colours which are considered to be useful for the correct understanding of its contents. Users should therefore print this document using a colour printer.**

## INTRODUCTION

Repeatable and comparable evaluations of the security program according to IEC 62443-2-4<sup>1</sup> require a common understanding for acceptable evaluation criteria and conformance evidence.

This document supports service providers and evaluators to do a conformity assessment by evaluating the security program against the requirements of IEC 62443-2-4.

This document specifies the evaluation methodology to support interested parties, for example during conformity assessment activities to achieve repeatable and reproducible evaluation results against IEC 62443-2-4 requirements.

---

<sup>1</sup> Throughout the document, when reference is being made to IEC 62443-2-4 (undated), this means IEC 62443-2-4:2015 and IEC 62443-2-4:2015/AMD1:2017 (Ed.1). A consolidated version of IEC 62443-2-4 is available.

## SECURITY FOR INDUSTRIAL AUTOMATION AND CONTROL SYSTEMS –

### Part 6-1: Security evaluation methodology for IEC 62443-2-4

#### 1 Scope

This part of IEC 62443 specifies the evaluation methodology to support interested parties (e.g. during conformity assessment activities) to achieve repeatable and reproducible evaluation results against IEC 62443-2-4 requirements. This document is intended for first-party, second-party or third-party conformity assessment activity, for example by product suppliers, service providers, asset owners and conformity assessment bodies.

NOTE 1 62443-2-4 specifies requirements for security capabilities of an IACS service provider. These security capabilities can be offered as a security program during integration and maintenance of an automation solution.

NOTE 2 The term “conformity assessment” and the terms first-party conformity assessment activity, second-party conformity assessment activity and third-party conformity assessment activity are defined in ISO/IEC 17000.

#### 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

IEC 62443-2-4:2015, *Security for industrial automation and control systems – Part 2-4: Security program requirements for IACS service providers*  
IEC 62443-2-4:2015/AMD1:2017

koniec náhľadu – text d'alej pokračuje v platenej verzii STN