

STN	Informačná bezpečnosť, kybernetická bezpečnosť a ochrana súkromia Kritériá na hodnotenie bezpečnosti IT Metodika na hodnotenie bezpečnosti IT (ISO/IEC 18045: 2022)	STN EN ISO/IEC 18045 97 4111
------------	--	--

Information security, cybersecurity and privacy protection - Evaluation criteria for IT security - Methodology for IT security evaluation (ISO/IEC 18045:2022)

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. 12/23

Obsahuje: EN ISO/IEC 18045:2023, ISO/IEC 18045:2022

Oznámením tejto normy sa ruší
STN EN ISO/IEC 18045 (36 9777) zo septembra 2020

137929

Úrad pre normalizáciu, metrológiu a skúšobníctvo Slovenskej republiky, 2024
Slovenská technická norma a technická normalizačná informácia je chránená zákonom č. 60/2018 Z. z. o technickej normalizácii v znení neskorších predpisov.

EUROPEAN STANDARD

EN ISO/IEC 18045

NORME EUROPÉENNE

EUROPÄISCHE NORM

November 2023

ICS 35.030

Supersedes EN ISO/IEC 18045:2020

English version

**Information security, cybersecurity and privacy protection
- Evaluation criteria for IT security - Methodology for IT
security evaluation (ISO/IEC 18045:2022)**

Sécurité de l'information, cybersécurité et protection
de la vie privée - Critères d'évaluation pour la sécurité
des technologies de l'information - Méthodologie pour
l'évaluation de sécurité (ISO/IEC 18045:2022)

Informationssicherheit, Cybersicherheit und Schutz
der Privatsphäre - Evaluationskriterien für IT-
Sicherheit - Methodik für die Bewertung der IT-
Sicherheit (ISO/IEC 18045:2022)

This European Standard was approved by CEN on 29 October 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 18045:2023 (E)

Contents	Page
European foreword.....	3

European foreword

The text of ISO/IEC 18045:2022 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 18045:2023 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 May 2024, and conflicting national standards shall be withdrawn at the latest by May 2024.

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.

This document supersedes EN ISO/IEC 18045:2020.

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 18045:2022 has been approved by CEN-CENELEC as EN ISO/IEC 18045:2023 without any modification.

**INTERNATIONAL
STANDARD**

**ISO/IEC
18045**

Third edition
2022-08

**Information security, cybersecurity
and privacy protection — Evaluation
criteria for IT security — Methodology
for IT security evaluation**

*Sécurité de l'information, cybersécurité et protection de la vie
privée — Critères d'évaluation pour la sécurité des technologies de
l'information — Méthodologie pour l'évaluation de sécurité*



Reference number
ISO/IEC 18045:2022(E)

© ISO/IEC 2022

ISO/IEC 18045:2022(E)**COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2022

All rights reserved. Unless otherwise specified, or required in the context of its implementation, 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
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Table of Contents

LIST OF FIGURES	ix
LIST OF TABLES	x
FOREWORD	xi
INTRODUCTION	xii
1 SCOPE	1
2 NORMATIVE REFERENCES	1
3 TERMS AND DEFINITIONS	1
4 ABBREVIATED TERMS	4
5 TERMINOLOGY	4
6 VERB USAGE	4
7 GENERAL EVALUATION GUIDANCE	5
8 RELATIONSHIP BETWEEN THE ISO/IEC 15408 SERIES AND ISO/IEC 18045 STRUCTURES	5
9 EVALUATION PROCESS AND RELATED TASKS	5
9.1 GENERAL	5
9.2 EVALUATION PROCESS OVERVIEW	6
9.2.1 Objectives	6
9.2.2 Responsibilities of the roles	6
9.2.3 Relationship of roles	6
9.2.4 General evaluation model	7
9.2.5 Evaluator verdicts	7
9.3 EVALUATION INPUT TASK	9
9.3.1 Objectives	9
9.3.2 Application notes	9
9.3.3 Management of evaluation evidence sub-task	10
9.4 EVALUATION SUB-ACTIVITIES	10
9.5 EVALUATION OUTPUT TASK	10
9.5.1 Objectives	10
9.5.2 Management of evaluation outputs	11
9.5.3 Application notes	11
9.5.4 Write OR sub-task	11
9.5.5 Write ETR sub-task	11
10 CLASS APE: PROTECTION PROFILE EVALUATION	19
10.1 GENERAL	19
10.2 RE-USING THE EVALUATION RESULTS OF CERTIFIED PPS	19
10.3 PP INTRODUCTION (APE_INT)	20
10.3.1 Evaluation of sub-activity (APE_INT.1)	20
10.4 CONFORMANCE CLAIMS (APE_CCL)	21
10.4.1 Evaluation of sub-activity (APE_CCL.1)	21
10.5 SECURITY PROBLEM DEFINITION (APE_SPD)	31
10.5.1 Evaluation of sub-activity (APE_SPD.1)	31
10.6 SECURITY OBJECTIVES (APE_OBJ)	32
10.6.1 Evaluation of sub-activity (APE_OBJ.1)	32
10.6.2 Evaluation of sub-activity (APE_OBJ.2)	33
10.7 EXTENDED COMPONENTS DEFINITION (APE_ECD)	36
10.7.1 Evaluation of sub-activity (APE_ECD.1)	36

ISO/IEC 18045:2022(E)

10.8	SECURITY REQUIREMENTS (APE_REQ)	40
10.8.1	<i>Evaluation of sub-activity (APE_REQ.1)</i>	40
10.8.2	<i>Evaluation of sub-activity (APE_REQ.2)</i>	45
11	CLASS ACE: PROTECTION PROFILE CONFIGURATION EVALUATION	49
11.1	GENERAL	49
11.2	PP-MODULE INTRODUCTION (ACE_INT)	51
11.2.1	<i>Evaluation of sub-activity (ACE_INT.1)</i>	51
11.3	PP-MODULE CONFORMANCE CLAIMS (ACE_CCL)	53
11.3.1	<i>Evaluation of sub-activity (ACE_CCL.1)</i>	53
11.4	PP-MODULE SECURITY PROBLEM DEFINITION (ACE_SPD)	58
11.4.1	<i>Evaluation of sub-activity (ACE_SPD.1)</i>	58
11.5	PP-MODULE SECURITY OBJECTIVES (ACE_OBJ)	59
11.5.1	<i>Evaluation of sub-activity (ACE_OBJ.1)</i>	59
11.5.2	<i>Evaluation of sub-activity (ACE_OBJ.2)</i>	60
11.6	PP-MODULE EXTENDED COMPONENTS DEFINITION (ACE_ECD)	63
11.6.1	<i>Evaluation of sub-activity (ACE_ECD.1)</i>	63
11.7	PP-MODULE SECURITY REQUIREMENTS (ACE_REQ)	67
11.7.1	<i>Evaluation of sub-activity (ACE_REQ.1)</i>	67
11.7.2	<i>Evaluation of sub-activity (ACE_REQ.2)</i>	72
11.8	PP-MODULE CONSISTENCY (ACE_MCO)	76
11.8.1	<i>Evaluation of sub-activity (ACE_MCO.1)</i>	76
11.9	PP-CONFIGURATION CONSISTENCY (ACE_CCO)	79
11.9.1	<i>Evaluation of sub-activity (ACE_CCO.1)</i>	79
12	CLASS ASE: SECURITY TARGET EVALUATION	87
12.1	GENERAL	87
12.2	APPLICATION NOTES	87
12.2.1	<i>Re-using the evaluation results of certified PPs</i>	87
12.3	ST INTRODUCTION (ASE_INT)	88
12.3.1	<i>Evaluation of sub-activity (ASE_INT.1)</i>	88
12.4	CONFORMANCE CLAIMS (ASE_CCL)	91
12.4.1	<i>Evaluation of sub-activity (ASE_CCL.1)</i>	91
12.5	SECURITY PROBLEM DEFINITION (ASE_SPD)	105
12.5.1	<i>Evaluation of sub-activity (ASE_SPD.1)</i>	105
12.6	SECURITY OBJECTIVES (ASE_OBJ)	106
12.6.1	<i>Evaluation of sub-activity (ASE_OBJ.1)</i>	106
12.6.2	<i>Evaluation of sub-activity (ASE_OBJ.2)</i>	107
12.7	EXTENDED COMPONENTS DEFINITION (ASE_ECD)	109
12.7.1	<i>Evaluation of sub-activity (ASE_ECD.1)</i>	109
12.8	SECURITY REQUIREMENTS (ASE_REQ)	113
12.8.1	<i>Evaluation of sub-activity (ASE_REQ.1)</i>	113
12.8.2	<i>Evaluation of sub-activity (ASE_REQ.2)</i>	119
12.9	TOE SUMMARY SPECIFICATION (ASE_TSS)	124
12.9.1	<i>Evaluation of sub-activity (ASE_TSS.1)</i>	124
12.9.2	<i>Evaluation of sub-activity (ASE_TSS.2)</i>	125
12.10	CONSISTENCY OF COMPOSITE PRODUCT SECURITY TARGET (ASE_COMP)	127
12.10.1	<i>General</i>	127
12.10.2	<i>Evaluation of sub-activity (ASE_COMP.1)</i>	127
13	CLASS ADV: DEVELOPMENT	132
13.1	GENERAL	132
13.2	APPLICATION NOTES	132
13.3	SECURITY ARCHITECTURE (ADV_ARC)	133
13.3.1	<i>Evaluation of sub-activity (ADV_ARC.1)</i>	133
13.4	FUNCTIONAL SPECIFICATION (ADV_FSP)	137
13.4.1	<i>Evaluation of sub-activity (ADV_FSP.1)</i>	137
13.4.2	<i>Evaluation of sub-activity (ADV_FSP.2)</i>	140

13.4.3	<i>Evaluation of sub-activity (ADV_FSP.3)</i>	145
13.4.4	<i>Evaluation of sub-activity (ADV_FSP.4)</i>	150
13.4.5	<i>Evaluation of sub-activity (ADV_FSP.5)</i>	155
13.4.6	<i>Evaluation of sub-activity (ADV_FSP.6)</i>	161
13.5	IMPLEMENTATION REPRESENTATION (ADV_IMP)	161
13.5.1	<i>Evaluation of sub-activity (ADV_IMP.1)</i>	161
13.5.2	<i>Evaluation of sub-activity (ADV_IMP.2)</i>	164
13.6	TSF INTERNALS (ADV_INT)	166
13.6.1	<i>Evaluation of sub-activity (ADV_INT.1)</i>	166
13.6.2	<i>Evaluation of sub-activity (ADV_INT.2)</i>	169
13.6.3	<i>Evaluation of sub-activity (ADV_INT.3)</i>	171
13.7	FORMAL TSF MODEL (ADV_SPM)	173
13.7.1	<i>Evaluation of sub-activity (ADV_SPM.1)</i>	173
13.8	TOE DESIGN (ADV_TDS)	180
13.8.1	<i>Evaluation of sub-activity (ADV_TDS.1)</i>	180
13.8.2	<i>Evaluation of sub-activity (ADV_TDS.2)</i>	183
13.8.3	<i>Evaluation of sub-activity (ADV_TDS.3)</i>	188
13.8.4	<i>Evaluation of sub-activity (ADV_TDS.4)</i>	197
13.8.5	<i>Evaluation of sub-activity (ADV_TDS.5)</i>	206
13.8.6	<i>Evaluation of sub-activity (ADV_TDS.6)</i>	213
13.9	COMPOSITE DESIGN COMPLIANCE (ADV_COMP)	214
13.9.1	<i>General</i>	214
13.9.2	<i>Evaluation of sub-activity (ADV_COMP.1)</i>	214
14	CLASS AGD: GUIDANCE DOCUMENTS	216
14.1	GENERAL	216
14.2	APPLICATION NOTES	216
14.3	OPERATIONAL USER GUIDANCE (AGD_OPE)	216
14.3.1	<i>Evaluation of sub-activity (AGD_OPE.1)</i>	216
14.4	PREPARATIVE PROCEDURES (AGD_PRE)	219
14.4.1	<i>Evaluation of sub-activity (AGD_PRE.1)</i>	219
15	CLASS ALC: LIFE-CYCLE SUPPORT	221
15.1	GENERAL	221
15.2	CM CAPABILITIES (ALC_CMC)	222
15.2.1	<i>Evaluation of sub-activity (ALC_CMC.1)</i>	222
15.2.2	<i>Evaluation of sub-activity (ALC_CMC.2)</i>	223
15.2.3	<i>Evaluation of sub-activity (ALC_CMC.3)</i>	224
15.2.4	<i>Evaluation of sub-activity (ALC_CMC.4)</i>	228
15.2.5	<i>Evaluation of sub-activity (ALC_CMC.5)</i>	233
15.3	CM SCOPE (ALC_CMS)	240
15.3.1	<i>Evaluation of sub-activity (ALC_CMS.1)</i>	240
15.3.2	<i>Evaluation of sub-activity (ALC_CMS.2)</i>	241
15.3.3	<i>Evaluation of sub-activity (ALC_CMS.3)</i>	242
15.3.4	<i>Evaluation of sub-activity (ALC_CMS.4)</i>	243
15.3.5	<i>Evaluation of sub-activity (ALC_CMS.5)</i>	244
15.4	DELIVERY (ALC_DEL)	245
15.4.1	<i>Evaluation of sub-activity (ALC_DEL.1)</i>	245
15.5	DEVELOPMENT SECURITY (ALC_DVS)	247
15.5.1	<i>Evaluation of sub-activity (ALC_DVS.1)</i>	247
15.5.2	<i>Evaluation of sub-activity (ALC_DVS.2)</i>	249
15.6	FLAW REMEDIATION (ALC_FLR)	252
15.6.1	<i>Evaluation of sub-activity (ALC_FLR.1)</i>	252
15.6.2	<i>Evaluation of sub-activity (ALC_FLR.2)</i>	254
15.6.3	<i>Evaluation of sub-activity (ALC_FLR.3)</i>	257
15.7	LIFE-CYCLE DEFINITION (ALC_LCD)	262
15.7.1	<i>Evaluation of sub-activity (ALC_LCD.1)</i>	262
15.7.2	<i>Evaluation of sub-activity (ALC_LCD.2)</i>	263

ISO/IEC 18045:2022(E)

15.8	TOE DEVELOPMENT ARTIFACTS (ALC_TDA).....	265
15.8.1	<i>Evaluation of sub-activity (ALC_TDA.1)</i>	265
15.8.2	<i>Evaluation of sub-activity (ALC_TDA.2)</i>	268
15.8.3	<i>Evaluation of sub-activity (ALC_TDA.3)</i>	272
15.9	TOOLS AND TECHNIQUES (ALC_TAT).....	276
15.9.1	<i>Evaluation of sub-activity (ALC_TAT.1)</i>	276
15.9.2	<i>Evaluation of sub-activity (ALC_TAT.2)</i>	278
15.9.3	<i>Evaluation of sub-activity (ALC_TAT.3)</i>	281
15.10	INTEGRATION OF COMPOSITION PARTS AND CONSISTENCY CHECK OF DELIVERY PROCEDURES (ALC_COMP).....	284
15.10.1	<i>General</i>	284
15.10.2	<i>Evaluation of sub-activity (ALC_COMP.1)</i>	284
16	CLASS ATE: TESTS.....	286
16.1	GENERAL.....	286
16.2	APPLICATION NOTES.....	287
16.2.1	<i>Understanding the expected behaviour of the TOE</i>	287
16.2.2	<i>Testing vs. alternate approaches to verify the expected behaviour of functionality</i>	288
16.2.3	<i>Verifying the adequacy of tests</i>	288
16.3	COVERAGE (ATE_COV).....	288
16.3.1	<i>Evaluation of sub-activity (ATE_COV.1)</i>	288
16.3.2	<i>Evaluation of sub-activity (ATE_COV.2)</i>	289
16.3.3	<i>Evaluation of sub-activity (ATE_COV.3)</i>	291
16.4	DEPTH (ATE_DPT).....	293
16.4.1	<i>Evaluation of sub-activity (ATE_DPT.1)</i>	293
16.4.2	<i>Evaluation of sub-activity (ATE_DPT.2)</i>	295
16.4.3	<i>Evaluation of sub-activity (ATE_DPT.3)</i>	298
16.4.4	<i>Evaluation of sub-activity (ATE_DPT.4)</i>	300
16.5	FUNCTIONAL TESTS (ATE_FUN).....	300
16.5.1	<i>Evaluation of sub-activity (ATE_FUN.1)</i>	300
16.5.2	<i>Evaluation of sub-activity (ATE_FUN.2)</i>	303
16.6	INDEPENDENT TESTING (ATE_IND).....	307
16.6.1	<i>Evaluation of sub-activity (ATE_IND.1)</i>	307
16.6.2	<i>Evaluation of sub-activity (ATE_IND.2)</i>	311
16.6.3	<i>Evaluation of sub-activity (ATE_IND.3)</i>	316
16.7	COMPOSITE FUNCTIONAL TESTING (ATE_COMP).....	316
16.7.1	<i>General</i>	316
16.7.2	<i>Evaluation of sub-activity (ATE_COMP.1)</i>	316
17	CLASS AVA: VULNERABILITY ASSESSMENT.....	317
17.1	GENERAL.....	317
17.2	VULNERABILITY ANALYSIS (AVA_VAN).....	318
17.2.1	<i>Evaluation of sub-activity (AVA_VAN.1)</i>	318
17.2.2	<i>Evaluation of sub-activity (AVA_VAN.2)</i>	323
17.2.3	<i>Evaluation of sub-activity (AVA_VAN.3)</i>	329
17.2.4	<i>Evaluation of sub-activity (AVA_VAN.4)</i>	337
17.2.5	<i>Evaluation of sub-activity (AVA_VAN.5)</i>	345
17.3	COMPOSITE VULNERABILITY ASSESSMENT (AVA_COMP).....	352
17.3.1	<i>General</i>	352
17.3.2	<i>Evaluation of sub-activity (AVA_COMP.1)</i>	352
18	CLASS ACO: COMPOSITION.....	354
18.1	GENERAL.....	354
18.2	APPLICATION NOTES.....	354
18.3	COMPOSITION RATIONALE (ACO_COR).....	355
18.3.1	<i>Evaluation of sub-activity (ACO_COR.1)</i>	355
18.4	DEVELOPMENT EVIDENCE (ACO_DEV).....	362
18.4.1	<i>Evaluation of sub-activity (ACO_DEV.1)</i>	362
18.4.2	<i>Evaluation of sub-activity (ACO_DEV.2)</i>	363

18.4.3	<i>Evaluation of sub-activity (ACO_DEV.3)</i>	365
18.5	RELIANCE OF DEPENDENT COMPONENT (ACO_REL).....	368
18.5.1	<i>Evaluation of sub-activity (ACO_REL.1)</i>	368
18.5.2	<i>Evaluation of sub-activity (ACO_REL.2)</i>	370
18.6	COMPOSED TOE TESTING (ACO_CTT).....	372
18.6.1	<i>Evaluation of sub-activity (ACO_CTT.1)</i>	372
18.6.2	<i>Evaluation of sub-activity (ACO_CTT.2)</i>	375
18.7	COMPOSITION VULNERABILITY ANALYSIS (ACO_VUL).....	378
18.7.1	<i>Evaluation of sub-activity (ACO_VUL.1)</i>	378
18.7.2	<i>Application notes</i>	378
18.7.3	<i>Evaluation of sub-activity (ACO_VUL.2)</i>	381
18.7.4	<i>Evaluation of sub-activity (ACO_VUL.3)</i>	384
ANNEX A (INFORMATIVE) GENERAL EVALUATION GUIDANCE		389
A.1	OBJECTIVES	389
A.2	SAMPLING	389
A.3	DEPENDENCIES	391
A.3.1	GENERAL	391
A.3.2	DEPENDENCIES BETWEEN ACTIVITIES	391
A.3.3	DEPENDENCIES BETWEEN SUB-ACTIVITIES	391
A.3.4	DEPENDENCIES BETWEEN ACTIONS	391
A.4	SITE VISITS	391
A.4.1	GENERAL	391
A.4.2	GENERAL APPROACH	392
A.5	ORIENTATION GUIDE FOR THE PREPARATION OF THE CHECKLIST	393
A.5.1	ASPECTS OF CONFIGURATION MANAGEMENT	393
A.5.2	ASPECTS OF DEVELOPMENT SECURITY	393
A.5.3	EXAMPLE OF A CHECKLIST	394
A.6	SCHEME RESPONSIBILITIES	397
ANNEX B (INFORMATIVE) VULNERABILITY ASSESSMENT (AVA)		399
B.1	WHAT IS VULNERABILITY ANALYSIS	399
B.2	EVALUATOR CONSTRUCTION OF A VULNERABILITY ANALYSIS	399
B.3	GENERIC VULNERABILITY GUIDANCE	400
B.3.1	BYPASSING	400
B.3.2	TAMPERING	402
B.3.3	DIRECT ATTACKS	405
B.3.4	MONITORING	405
B.3.5	MISUSE	406
B.4	IDENTIFICATION OF POTENTIAL VULNERABILITIES	407
B.4.1	ENCOUNTERED	407
B.4.2	ANALYSIS	408
B.4.2.1	GENERAL	408
B.4.2.2	UNSTRUCTURED ANALYSIS	408

ISO/IEC 18045:2022(E)

B.4.2.3	FOCUSED	408
B.4.2.4	METHODICAL	409
B.5	WHEN ATTACK POTENTIAL IS USED	410
B.5.1	DEVELOPER	410
B.5.2	EVALUATOR	410
B.6	CALCULATING ATTACK POTENTIAL	411
B.6.1	APPLICATION OF ATTACK POTENTIAL	411
B.6.1.1	GENERAL	411
B.6.1.2	TREATMENT OF MOTIVATION	411
B.6.2	CHARACTERISING ATTACK POTENTIAL	412
B.6.2.1	GENERAL	412
B.6.2.2	DETERMINING THE ATTACK POTENTIAL	412
B.6.2.3	FACTORS TO BE CONSIDERED	412
B.6.2.4	CALCULATION OF ATTACK POTENTIAL	415
B.7	EXAMPLE CALCULATION FOR DIRECT ATTACK	418
	ANNEX C (INFORMATIVE) EVALUATION TECHNIQUES AND TOOLS	420
C.1	SEMIFORMAL AND FORMAL METHODS	420
C.1.1	GENERAL	420
C.1.2	DESCRIPTION OF STYLES	420
C.1.2.1	INFORMAL STYLE	421
C.1.2.2	SEMIFORMAL STYLE	422
C.1.2.3	FORMAL STYLE	423

List of figures

FIGURE 1 — MAPPING OF THE ISO/IEC 15408 SERIES AND ISO/IEC 18045 STRUCTURES	5
FIGURE 2 — GENERIC EVALUATION MODEL	7
FIGURE 3 — EXAMPLE OF THE VERDICT ASSIGNMENT RULE	8
FIGURE 4 — ETR INFORMATION CONTENT FOR A PP EVALUATION	12
FIGURE 5 — ETR INFORMATION CONTENT FOR A PP-CONFIGURATION EVALUATION.....	14
FIGURE 6 — ETR INFORMATION CONTENT FOR A TOE EVALUATION.....	17
FIGURE 7 — RELATIONSHIP BETWEEN PPS AND PP-MODULES IN A PP-CONFIGURATION	50
FIGURE 8 — EXAMPLE OF EXACT CONFORMANCE RELATIONSHIPS BETWEEN AN ST AND PPS.....	94

ISO/IEC 18045:2022(E)**List of tables**

TABLE 1 — ASE_COMP	127
TABLE 2 — ADV_COMP	214
TABLE 3 — ALC_COMP	284
TABLE 4 — ATE_COMP	316
TABLE 5 — AVA_COMP	352
TABLE A.1 — EXAMPLE OF A CHECKLIST AT EAL 4 (EXTRACT)	395
TABLE B.1 — VULNERABILITY TESTING AND ATTACK POTENTIAL	410
TABLE B.2 — CALCULATION OF ATTACK POTENTIAL	415
TABLE B.3 — RATING OF VULNERABILITIES AND TOE RESISTANCE	417

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).

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) or the IEC list of patent declarations received (see <http://patents.iec.ch>).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 18045:2008), which has been technically revised.

The main changes are as follows:

- the exact conformance type has been introduced;
- low assurance PPs have been removed and direct rationale PPs have been introduced;
- PP-modules and PP-configurations for modular evaluations have been introduced;
- multi-assurance evaluation has been introduced.

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.

ISO/IEC 18045:2022(E)**Legal notice**

The governmental organizations listed below contributed to the development of this version of the Common Methodology for Information Technology Security Evaluations. As the joint holders of the copyright in the Common Methodology for Information Technology Security Evaluations (called CEM), they hereby grant non-exclusive license to ISO/IEC to use CEM in the continued development/maintenance of the ISO/IEC 18045 International Standard. However, these governmental organizations retain the right to use, copy, distribute, translate or modify CEM as they see fit.”

Australia	The Australian Signals Directorate
Canada	Communications Security Establishment
France	Agence Nationale de la Sécurité des Systèmes d'Information
Germany	Bundesamt für Sicherheit in der Informationstechnik
Japan	Information-technology Promotion Agency
Netherlands	Netherlands National Communications Security Agency
New Zealand	Government Communications Security Bureau
Republic of Korea	National Security Research Institute
Spain	Ministerio de Asuntos Económicos y Transformación Digital
Sweden	FMV, Swedish Defence Materiel Administration
United Kingdom	National Cyber Security Centre
United States	The National Security Agency

Introduction

The target audience for this document is primarily evaluators applying the ISO/IEC 15408 series and certifiers confirming evaluator actions. Evaluation sponsors, developers, protection profile (PP), PP-Module, PP-Configuration, and security target (ST) authors, and other parties interested in IT security, can be a secondary audience.

This document cannot answer all questions concerning IT security evaluation and further interpretations may be needed. Individual schemes determine how to handle such interpretations, although these can be subject to mutual recognition agreements. A list of methodology-related activities that can be handled by individual schemes can be found in Annex A.

This document is intended to be used in conjunction with the ISO/IEC 15408 series.

NOTE 1 Reference throughout the document to ISO/IEC 15408 implies the ISO/IEC 15408 series.

NOTE 2 This document uses bold and italic type in some cases to distinguish terms from the rest of the text. The relationship between components within a family is highlighted using a bolding convention. This convention calls for the use of bold type for all new requirements. For hierarchical components, requirements are presented in bold type when they are enhanced or modified beyond the requirements of the previous component. In addition, any new or enhanced permitted operations beyond the previous component are also highlighted using bold type.

The use of italics indicates text that has a precise meaning. For security assurance requirements the convention is for special verbs relating to evaluation.

Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Methodology for IT security evaluation

1 Scope

This document defines the minimum actions to be performed by an evaluator in order to conduct an ISO/IEC 15408 series evaluation, using the criteria and evaluation evidence defined in the ISO/IEC 15408 series.

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.

ISO/IEC 15408-1:2022, *Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 1: Introduction and general model*

ISO/IEC 15408-2:2022, *Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 2: Security functional components*

ISO/IEC 15408-3:2022, *Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 3: Security assurance components*

ISO/IEC 15408-4, *Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 4: Framework for the specification of evaluation methods and activities*

ISO/IEC 15408-5, *Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Part 5: Pre-defined packages of security requirements*

ISO/IEC IEEE 24765, *Systems and software engineering — Vocabulary*

koniec náhľadu – text ďalej pokračuje v platenej verzii STN