

## ISO/IEC 18045

### **Information security, cybersecurity and privacy protection — Evaluation criteria for IT security — Requirements and 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 — Exigences et méthodologie pour l'évaluation  
de sécurité*

**Fourth edition  
2026-05**



**COPYRIGHT PROTECTED DOCUMENT**

© ISO/IEC 2026

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](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

<b>Foreword</b> .....	<b>viii</b>
<b>Introduction</b> .....	<b>ix</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
<b>4 Terminology</b> .....	<b>4</b>
<b>5 Verb usage</b> .....	<b>5</b>
<b>6 General evaluation guidance</b> .....	<b>5</b>
<b>7 Relationship between structures within the CC and the structure of this document</b> .....	<b>5</b>
<b>8 Evaluation process and related tasks</b> .....	<b>6</b>
8.1 General.....	6
8.2 Evaluation process overview.....	6
8.2.1 Objectives.....	6
8.2.2 Responsibilities of the roles.....	6
8.2.3 Relationship of roles.....	7
8.2.4 General evaluation model.....	7
8.2.5 Evaluator verdicts.....	8
8.3 Evaluation input task.....	9
8.3.1 Objectives.....	9
8.3.2 Application notes.....	9
8.3.3 Management of evaluation evidence task.....	10
8.4 Evaluation sub-activities.....	11
8.5 Evaluation output task.....	11
8.5.1 Objectives.....	11
8.5.2 Management of evaluation outputs.....	11
8.5.3 Application notes.....	11
8.5.4 Write OR task.....	11
8.5.5 Write ETR task.....	12
<b>9 Protection Profile (PP) evaluation</b> .....	<b>19</b>
9.1 Introduction.....	19
9.2 Application notes.....	19
9.2.1 Re-using the evaluation results of certified PPs.....	19
9.3 PP introduction (APE_INT).....	20
9.3.1 Evaluation of sub-activity (APE_INT.1).....	20
9.4 Conformance claims (APE_CCL).....	21
9.4.1 Evaluation of sub-activity (APE_CCL.1).....	21
9.5 Security problem definition (APE_SPD).....	32
9.5.1 Evaluation of sub-activity (APE_SPD.1).....	32
9.6 Security objectives (APE_OBJ).....	33
9.6.1 Evaluation of sub-activity (APE_OBJ.1).....	33
9.6.2 Evaluation of sub-activity (APE_OBJ.2).....	35
9.7 Extended components definition (APE_ECD).....	37
9.7.1 Evaluation of sub-activity (APE_ECD.1).....	37
9.8 Security requirements (APE_REQ).....	41
9.8.1 Evaluation of sub-activity (APE_REQ.1).....	41
9.8.2 Evaluation of sub-activity (APE_REQ.2).....	47
<b>10 Protection Profile Configuration evaluation</b> .....	<b>51</b>
10.1 Introduction.....	51
10.2 PP-Module introduction (ACE_INT).....	52
10.2.1 Evaluation of sub-activity (ACE_INT.1).....	52
10.3 PP-Module conformance claims (ACE_CCL).....	55

This is a preview of ISO/IEC 18045:2026. [Click here to purchase the full version from the ANSI store.](#)

10.4.1	Evaluation of sub-activity (ACE_SPD.1)	61
10.5	PP-Module security objectives (ACE_OBJ)	62
10.5.1	Evaluation of sub-activity (ACE_OBJ.1)	62
10.5.2	Evaluation of sub-activity (ACE_OBJ.2)	64
10.6	PP-Module extended components definition (ACE_ECD)	66
10.6.1	Evaluation of sub-activity (ACE_ECD.1)	66
10.7	PP-Module security requirements (ACE_REQ)	70
10.7.1	Evaluation of sub-activity (ACE_REQ.1)	70
10.7.2	Evaluation of sub-activity (ACE_REQ.2)	76
10.8	PP-Module consistency (ACE_MCO)	81
10.8.1	Evaluation of sub-activity (ACE_MCO.1)	81
10.9	PP-Configuration consistency (ACE_CCO)	84
10.9.1	Evaluation of sub-activity (ACE_CCO.1)	84
<b>11</b>	<b>Security Target (ST) evaluation</b>	<b>93</b>
11.1	Introduction	93
11.2	Application notes	93
11.2.1	Re-using the evaluation results of certified PPs	93
11.2.2	Composition	94
11.3	ST introduction (ASE_INT)	94
11.3.1	Evaluation of sub-activity (ASE_INT.1)	94
11.4	Conformance claims (ASE_CCL)	98
11.4.1	Evaluation of sub-activity (ASE_CCL.1)	98
11.5	Security problem definition (ASE_SPD)	112
11.5.1	Evaluation of sub-activity (ASE_SPD.1)	112
11.6	Security objectives (ASE_OBJ)	113
11.6.1	Evaluation of sub-activity (ASE_OBJ.1)	113
11.6.2	Evaluation of sub-activity (ASE_OBJ.2)	115
11.7	Extended components definition (ASE_ECD)	117
11.7.1	Evaluation of sub-activity (ASE_ECD.1)	117
11.8	Security requirements (ASE_REQ)	121
11.8.1	Evaluation of sub-activity (ASE_REQ.1)	121
11.8.2	Evaluation of sub-activity (ASE_REQ.2)	128
11.9	TOE summary specification (ASE_TSS)	134
11.9.1	Evaluation of sub-activity (ASE_TSS.1)	134
11.9.2	Evaluation of sub-activity (ASE_TSS.2)	135
11.10	Consistency of composite product Security Target (ASE_COMP)	136
11.10.1	Evaluation of sub-activity (ASE_COMP.1)	136
<b>12</b>	<b>Development</b>	<b>141</b>
12.1	Introduction	141
12.2	Application notes	141
12.2.1	General	141
12.2.2	Composition	142
12.3	Security architecture (ADV_ARC)	142
12.3.1	Evaluation of sub-activity (ADV_ARC.1)	142
12.4	Functional specification (ADV_FSP)	147
12.4.1	Evaluation of sub-activity (ADV_FSP.1)	147
12.4.2	Evaluation of sub-activity (ADV_FSP.2)	150
12.4.3	Evaluation of sub-activity (ADV_FSP.3)	155
12.4.4	Evaluation of sub-activity (ADV_FSP.4)	160
12.4.5	Evaluation of sub-activity (ADV_FSP.5)	166
12.5	Implementation representation (ADV_IMP)	172
12.5.1	Evaluation of sub-activity (ADV_IMP.1)	172
12.5.2	Evaluation of sub-activity (ADV_IMP.2)	174
12.6	TSF internals (ADV_INT)	177
12.6.1	Evaluation of sub-activity (ADV_INT.1)	177
12.6.2	Evaluation of sub-activity (ADV_INT.2)	180

This is a preview of ISO/IEC 18045:2026. [Click here to purchase the full version from the ANSI store.](#)

12.7.1	Evaluation of sub-activity (ADV_SPM.1)	185
12.8	TOE design (ADV_TDS)	191
12.8.1	Evaluation of sub-activity (ADV_TDS.1)	191
12.8.2	Evaluation of sub-activity (ADV_TDS.2)	195
12.8.3	Evaluation of sub-activity (ADV_TDS.3)	200
12.8.4	Evaluation of sub-activity (ADV_TDS.4)	209
12.8.5	Evaluation of sub-activity (ADV_TDS.5)	219
12.9	Composite design compliance (ADV_COMP)	227
12.9.1	Evaluation of sub-activity (ADV_COMP.1)	227
<b>13</b>	<b>Guidance documents</b>	<b>229</b>
13.1	Introduction	229
13.2	Application notes	229
13.3	Operational user guidance (AGD_OPE)	230
13.3.1	Evaluation of sub-activity (AGD_OPE.1)	230
13.4	Preparative procedures (AGD_PRE)	233
13.4.1	Evaluation of sub-activity (AGD_PRE.1)	233
<b>14</b>	<b>life cycle support</b>	<b>235</b>
14.1	Introduction	235
14.2	Application notes	235
14.2.1	Composition	235
14.3	CM capabilities (ALC_CMC)	236
14.3.1	Evaluation of sub-activity (ALC_CMC.1)	236
14.3.2	Evaluation of sub-activity (ALC_CMC.2)	237
14.3.3	Evaluation of sub-activity (ALC_CMC.3)	239
14.3.4	Evaluation of sub-activity (ALC_CMC.4)	243
14.3.5	Evaluation of sub-activity (ALC_CMC.5)	248
14.4	CM scope (ALC_CMS)	256
14.4.1	Evaluation of sub-activity (ALC_CMS.1)	256
14.4.2	Evaluation of sub-activity (ALC_CMS.2)	257
14.4.3	Evaluation of sub-activity (ALC_CMS.3)	258
14.4.4	Evaluation of sub-activity (ALC_CMS.4)	259
14.4.5	Evaluation of sub-activity (ALC_CMS.5)	260
14.5	Delivery (ALC_DEL)	262
14.5.1	Evaluation of sub-activity (ALC_DEL.1)	262
14.6	Developer environment security (ALC_DVS)	263
14.6.1	Evaluation of sub-activity (ALC_DVS.1)	263
14.6.2	Evaluation of sub-activity (ALC_DVS.2)	265
14.7	Flaw remediation (ALC_FLR)	268
14.7.1	Evaluation of sub-activity (ALC_FLR.1)	268
14.7.2	Evaluation of sub-activity (ALC_FLR.2)	271
14.7.3	Evaluation of sub-activity (ALC_FLR.3)	274
14.8	Development life cycle definition (ALC_LCD)	280
14.8.1	Evaluation of sub-activity (ALC_LCD.1)	280
14.8.2	Evaluation of sub-activity (ALC_LCD.2)	281
14.9	TOE development artefacts (ALC_TDA)	284
14.9.1	Evaluation of sub-activity (ALC_TDA.1)	284
14.9.2	Evaluation of sub-activity (ALC_TDA.2)	287
14.9.3	Evaluation of sub-activity (ALC_TDA.3)	291
14.10	Tools and techniques (ALC_TAT)	296
14.10.1	Evaluation of sub-activity (ALC_TAT.1)	296
14.10.2	Evaluation of sub-activity (ALC_TAT.2)	298
14.10.3	Evaluation of sub-activity (ALC_TAT.3)	301
14.11	Integration of composition parts and consistency check of delivery procedures (ALC_COMP)	304
14.11.1	Evaluation of sub-activity (ALC_COMP.1)	304

This is a preview of ISO/IEC 18045:2026. [Click here to purchase the full version from the ANSI store.](#)

15.2	Application notes.....	307
15.2.1	General.....	307
15.2.2	Understanding the expected behaviour of the TOE.....	307
15.2.3	Testing vs. alternate approaches to verify the expected behaviour of functionality.....	307
15.2.4	Verifying the adequacy of tests.....	308
15.2.5	Composition.....	308
15.3	Coverage (ATE_COV).....	309
15.3.1	Evaluation of sub-activity (ATE_COV.1).....	309
15.3.2	Evaluation of sub-activity (ATE_COV.2).....	309
15.3.3	Evaluation of sub-activity (ATE_COV.3).....	311
15.4	Depth (ATE_DPT).....	313
15.4.1	Evaluation of sub-activity (ATE_DPT.1).....	313
15.4.2	Evaluation of sub-activity (ATE_DPT.2).....	315
15.4.3	Evaluation of sub-activity (ATE_DPT.3).....	318
15.5	Functional tests (ATE_FUN).....	321
15.5.1	Evaluation of sub-activity (ATE_FUN.1).....	321
15.5.2	Evaluation of sub-activity (ATE_FUN.2).....	324
15.6	Independent testing (ATE_IND).....	328
15.6.1	Evaluation of sub-activity (ATE_IND.1).....	328
15.6.2	Evaluation of sub-activity (ATE_IND.2).....	331
15.7	Composite functional testing (ATE_COMP).....	336
15.7.1	Evaluation of sub-activity (ATE_COMP.1).....	336
<b>16</b>	<b>Vulnerability assessment.....</b>	<b>338</b>
16.1	Introduction.....	338
16.2	Application notes.....	338
16.2.1	Composition.....	338
16.3	Vulnerability analysis (AVA_VAN).....	338
16.3.1	Evaluation of sub-activity (AVA_VAN.1).....	338
16.3.2	Evaluation of sub-activity (AVA_VAN.2).....	344
16.3.3	Evaluation of sub-activity (AVA_VAN.3).....	351
16.3.4	Evaluation of sub-activity (AVA_VAN.4).....	359
16.3.5	Evaluation of sub-activity (AVA_VAN.5).....	367
16.4	Composite vulnerability assessment (AVA_COMP).....	375
16.4.1	Evaluation of sub-activity (AVA_COMP.1).....	375
<b>17</b>	<b>Composition.....</b>	<b>378</b>
17.1	Introduction.....	378
17.2	Application notes.....	378
17.3	Composition rationale (ACO_COR).....	379
17.3.1	Evaluation of sub-activity (ACO_COR.1).....	379
17.4	Development evidence (ACO_DEV).....	385
17.4.1	Evaluation of sub-activity (ACO_DEV.1).....	385
17.4.2	Evaluation of sub-activity (ACO_DEV.2).....	387
17.4.3	Evaluation of sub-activity (ACO_DEV.3).....	389
17.5	Reliance of dependent component (ACO_REL).....	391
17.5.1	Evaluation of sub-activity (ACO_REL.1).....	391
17.5.2	Evaluation of sub-activity (ACO_REL.2).....	394
17.6	Composed TOE testing (ACO_CTT).....	396
17.6.1	Evaluation of sub-activity (ACO_CTT.1).....	396
17.6.2	Evaluation of sub-activity (ACO_CTT.2).....	399
17.7	Composition vulnerability analysis (ACO_VUL).....	403
17.7.1	Evaluation of sub-activity (ACO_VUL.1).....	403
17.7.2	Evaluation of sub-activity (ACO_VUL.2).....	406
17.7.3	Evaluation of sub-activity (ACO_VUL.3).....	410
	<b>Annex A (informative) General evaluation guidance and requirements.....</b>	<b>415</b>

This is a preview of ISO/IEC 18045:2026. [Click here to purchase the full version from the ANSI store.](#)

<b>Annex C</b> (informative) <b>Evaluation techniques and tools - Semi-formal and formal methods</b> .....	<b>443</b>
<b>Bibliography</b> .....	<b>447</b>

This is a preview of ISO/IEC 18045:2026. [Click here to purchase the full version from the ANSI store.](#)

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](http://www.iso.org/directives) or [www.iec.ch/members\\_experts/refdocs](http://www.iec.ch/members_experts/refdocs)).

ISO and IEC draw attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO and IEC take 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, ISO and 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 [www.iso.org/patents](http://www.iso.org/patents) and <https://patents.iec.ch>. ISO and IEC shall not be held responsible for identifying any or all such patent rights.

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](http://www.iso.org/iso/foreword.html). In the IEC, see [www.iec.ch/understanding-standards](http://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*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/CLC/JTC 13, *Cybersecurity and data protection*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This fourth edition cancels and replaces the third edition (ISO/IEC 18045:2022), which has been technically revised.

The main changes are as follows:

- the document has been aligned with changes to the ISO/IEC 15408 series;
- technical changes have been introduced;
- the terminology has been reviewed and updated;
- the work units for each component have been reviewed and updated.

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](http://www.iso.org/members.html) and [www.iec.ch/national-committees](http://www.iec.ch/national-committees).

This is a preview of ISO/IEC 18045:2026. [Click here to purchase the full version from the ANSI store.](#)

The target audience for this document is primarily evaluators applying the ISO/IEC 15408 series and certifiers confirming evaluator actions.

The following can be a secondary audience:

- evaluation sponsors,
- developers,
- protection profile (PP), PP-Module, PP-Configuration, and security target (ST) authors,
- other parties interested in IT security.

This document is not intended to answer all questions concerning IT security evaluation and further interpretations can 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.

This document uses bold italic type face to identify special verbs relating to mandatory evaluation activities.

Several governmental organizations have 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. More information on these agencies can be found at <https://commoncriterialportal.org//cc/copyright/index.cfm>.