

DIN ISO/IEC 15408-2:2007-11 (E)

Information technology - Security techniques - Evaluation criteria for IT security - Part 2: Security functional requirements (ISO/IEC 15408-2:2005); Text in English

Inhalt	Seite
Nationales Vorwort	6
Nationaler Anhang NA (informativ) Begriffe	7
Nationaler Anhang NB (informativ) Symbole und Abkürzungen	16
Nationaler Anhang NC (informativ) Literaturhinweise	17
Introduction	18
1 Scope	18
2 Normative references	18
3 Terms and definitions, symbols and abbreviated terms	18
4 Overview	19
4.1 Organisation of this part of ISO/IEC 15408	19
5 Functional requirements paradigm	19
6 Security functional components	24
6.1 Overview	24
6.2 Component catalogue	29
7 Class FAU: Security audit	30
7.1 Security audit automatic response (FAU_ARP)	31
7.2 Security audit data generation (FAU_GEN)	31
7.3 Security audit analysis (FAU_SAA)	33
7.4 Security audit review (FAU_SAR)	36
7.5 Security audit event selection (FAU_SEL)	37
7.6 Security audit event storage (FAU_STG)	38
8 Class FCO: Communication	41
8.1 Non-repudiation of origin (FCO_NRO)	41
8.2 Non-repudiation of receipt (FCO_NRR)	43
9 Class FCS: Cryptographic support	44
9.1 Cryptographic key management (FCS_CKM)	45
9.2 Cryptographic operation (FCS_COP)	47
10 Class FDP: User data protection	48
10.1 Access control policy (FDP_ACC)	51
10.2 Access control functions (FDP_ACF)	52
10.3 Data authentication (FDP_DAU)	53
10.4 Export to outside TSF control (FDP_ETC)	55
10.5 Information flow control policy (FDP_IFC)	56
10.6 Information flow control functions (FDP_IFF)	57
10.7 Import from outside TSF control (FDP_ITC)	62
10.8 Internal TOE transfer (FDP_ITT)	64
10.9 Residual information protection (FDP_RIP)	66
10.10 Rollback (FDP_ROL)	67
10.11 Stored data integrity (FDP_SDI)	69
10.12 Inter-TSF user data confidentiality transfer protection (FDP_UCT)	70
10.13 Inter-TSF user data integrity transfer protection (FDP_UIT)	71
11 Class FIA: Identification and authentication	73
11.1 Authentication failures (FIA_AFL)	74
11.2 User attribute definition (FIA_ATD)	75
11.3 Specification of secrets (FIA_SOS)	76
11.4 User authentication (FIA_UAU)	77
11.5 User identification (FIA_UID)	81

11.6	User-subject binding (FIA_USB).....	82
12	Class FMT: Security management.....	83
12.1	Management of functions in TSF (FMT_MOF).....	84
12.2	Management of security attributes (FMT_MSA).....	85
12.3	Management of TSF data (FMT_MTD).....	88
12.4	Revocation (FMT_REV).....	90
12.5	Security attribute expiration (FMT_SAE).....	91
12.6	Specification of Management Functions (FMT_SMF).....	92
12.7	Security management roles (FMT_SMR).....	92
13	Class FPR: Privacy.....	94
13.1	Anonymity (FPR_ANO).....	95
13.2	Pseudonymity (FPR_PSE).....	96
13.3	Unlinkability (FPR_UNL).....	98
13.4	Unobservability (FPR_UNO).....	99
14	Class FPT: Protection of the TSF.....	101
14.1	Underlying abstract machine test (FPT_AMT).....	103
14.2	Fail secure (FPT_FLS).....	103
14.3	Availability of exported TSF data (FPT_ITA).....	104
14.4	Confidentiality of exported TSF data (FPT_ITC).....	105
14.5	Integrity of exported TSF data (FPT_ITI).....	106
14.6	Internal TOE TSF data transfer (FPT_ITT).....	107
14.7	TSF physical protection (FPT_PHP).....	109
14.8	Trusted recovery (FPT_RCV).....	112
14.9	Replay detection (FPT_RPL).....	114
14.10	Reference mediation (FPT_RVM).....	115
14.11	Domain separation (FPT_SEP).....	116
14.12	State synchrony protocol (FPT_SSP).....	118
14.13	Time stamps (FPT_STM).....	119
14.14	Inter-TSF TSF data consistency (FPT_TDC).....	120
14.15	Internal TOE TSF data replication consistency (FPT_TRC).....	121
14.16	TSF self test (FPT_TST).....	121
15	Class FRU: Resource utilisation.....	123
15.1	Fault tolerance (FRU_FLT).....	123
15.2	Priority of service (FRU_PRS).....	124
15.3	Resource allocation (FRU_RSA).....	125
16	Class FTA: TOE access.....	126
16.1	Limitation on scope of selectable attributes (FTA_LSA).....	127
16.2	Limitation on multiple concurrent sessions (FTA_MCS).....	128
16.3	Session locking (FTA_SSL).....	129
16.4	TOE access banners (FTA_TAB).....	131
16.5	TOE access history (FTA_TAH).....	132
16.6	TOE session establishment (FTA_TSE).....	133
17	Class FTP: Trusted path/channels.....	133
17.1	Inter-TSF trusted channel (FTP_ITC).....	134
17.2	Trusted path (FTP_TRP).....	135
Annex A (normative) Security functional requirements application notes.....		137
A.1	Structure of the notes.....	137
A.2	Dependency tables.....	139
Annex B (normative) Functional classes, families, and components.....		146
Annex C (normative) Class FAU: Security audit.....		147
C.1	Audit requirements in a distributed environment.....	147
C.2	Security audit automatic response (FAU_ARP).....	148

C.3	Security audit data generation (FAU_GEN)	149
C.4	Security audit analysis (FAU_SAA)	151
C.5	Security audit review (FAU_SAR)	154
C.6	Security audit event selection (FAU_SEL)	156
C.7	Security audit event storage (FAU_STG)	156
Annex D	(normative) Class FCO: Communication	159
D.1	Non-repudiation of origin (FCO_NRO).....	159
D.2	Non-repudiation of receipt (FCO_NRR).....	161
Annex E	(normative) Class FCS: Cryptographic support.....	164
E.1	Cryptographic key management (FCS_CKM).....	165
E.2	Cryptographic operation (FCS_COP)	167
Annex F	(normative) Class FDP: User data protection	169
F.1	Access control policy (FDP_ACC)	173
F.2	Access control functions (FDP_ACF).....	174
F.3	Data authentication (FDP_DAU).....	176
F.4	Export to outside TSF control (FDP_ETC)	177
F.5	Information flow control policy (FDP_IFC).....	178
F.6	Information flow control functions (FDP_IFF)	180
F.7	Import from outside TSF control (FDP_ITC)	184
F.8	Internal TOE transfer (FDP_ITT)	186
F.9	Residual information protection (FDP_RIP).....	188
F.10	Rollback (FDP_ROL).....	189
F.11	Stored data integrity (FDP_SDI)	191
F.12	Inter-TSF user data confidentiality transfer protection (FDP_UCT)	192
F.13	Inter-TSF user data integrity transfer protection (FDP_UIT)	192
Annex G	(normative) Class FIA: Identification and authentication	195
G.1	Authentication failures (FIA_AFL).....	196
G.2	User attribute definition (FIA_ATD).....	197
G.3	Specification of secrets (FIA_SOS).....	198
G.4	User authentication (FIA_UAU)	199
G.5	User identification (FIA_UID)	202
G.6	User-subject binding (FIA_USB)	203
Annex H	(normative) Class FMT: Security management	204
H.1	Management of functions in TSF (FMT_MOF)	205
H.2	Management of security attributes (FMT_MSA)	206
H.3	Management of TSF data (FMT_MTD).....	207
H.4	Revocation (FMT_REV)	209
H.5	Security attribute expiration (FMT_SAE).....	210
H.6	Specification of Management Functions (FMT_SMF)	210
H.7	Security management roles (FMT_SMR).....	210
Annex I	(normative) Class FPR: Privacy.....	213
I.1	Anonymity (FPR_ANO).....	214
I.2	Pseudonymity (FPR_PSE)	215
I.3	Unlinkability (FPR_UNL)	219
I.4	Unobservability (FPR_UNO)	220
Annex J	(normative) Class FPT: Protection of the TSF	224
J.1	Underlying abstract machine test (FPT_AMT).....	227
J.2	Fail secure (FPT_FLS)	228
J.3	Availability of exported TSF data (FPT_ITA).....	228
J.4	Confidentiality of exported TSF data (FPT_ITC).....	229
J.5	Integrity of exported TSF data (FPT_ITI)	229
J.6	Internal TOE TSF data transfer (FPT_ITT)	230
J.7	TSF physical protection (FPT_PHP)	231

J.8	Trusted recovery (FPT_RCV)	233
J.9	Replay detection (FPT_RPL)	236
J.10	Reference mediation (FPT_RVM).....	237
J.11	Domain separation (FPT_SEP).....	238
J.12	State synchrony protocol (FPT_SSP).....	239
J.13	Time stamps (FPT_STM).....	240
J.14	Inter-TSF TSF data consistency (FPT_TDC).....	240
J.15	Internal TOE TSF data replication consistency (FPT_TRC).....	241
J.16	TSF self test (FPT_TST)	242
Annex K (normative) Class FRU: Resource utilisation.....		244
K.1	Fault tolerance (FRU_FLT)	244
K.2	Priority of service (FRU_PRS).....	245
K.3	Resource allocation (FRU_RSA).....	246
Annex L (normative) Class FTA: TOE access.....		249
L.1	Limitation on scope of selectable attributes (FTA_LSA)	249
L.2	Limitation on multiple concurrent sessions (FTA_MCS)	250
L.3	Session locking (FTA_SSL).....	251
L.4	TOE access banners (FTA_TAB)	252
L.5	TOE access history (FTA_TAH)	253
L.6	TOE session establishment (FTA_TSE).....	253
Annex M (normative) Class FTP: Trusted path/channels		255
M.1	Inter-TSF trusted channel (FTP_ITC).....	255
M.2	Trusted path (FTP_TRP)	256