

DIN CEN/TS 17262:2019-03 (E)

Personal identification - Robustness against biometric presentation attacks - Application to European Automated Border Control; English version CEN/TS 17262:2018

Contents

- European foreword..... 4
- Introduction 5
- 1 Scope..... 6
- 2 Normative references..... 6
- 3 Terms and definitions 6
- 4 Abbreviated terms..... 7
- 5 Presentation attack detection overview in ABC system 8
 - 5.1 Obstacles to presentation attacks in ABC system..... 8
 - 5.2 Impostor attacks..... 8
 - 5.2.1 General..... 8
 - 5.2.2 Verification of an eMRTD credential..... 8
 - 5.2.3 Identification in a Registered Traveller Programme use case 9
 - 5.2.4 Concealer attacks..... 9
 - 5.3 Level of attack potential to consider..... 9
- 6 Minimal accuracy requirements guideline for ABC systems..... 10
- 7 PAD evaluation in ABC systems 10
 - 7.1 Overview 10
 - 7.2 Artefacts Properties 10
 - 7.2.1 Overview 10
 - 7.2.2 Artefacts for facial biometrics..... 10
 - 7.2.3 Artefacts for fingerprint biometrics..... 11
 - 7.3 Artefact creation and usage..... 12
 - 7.4 Metrics for the evaluation of ABC systems..... 13
 - 7.4.1 General metrics..... 13
 - 7.4.2 Metrics for an impostor attack scenario with eMRTD credentials 14
 - 7.4.3 Metrics for an impostor attack scenario in Registered Traveller Programme 14
 - 7.4.4 Metrics for concealer attack scenario..... 14
 - 7.4.5 Considerations on statistical relevance 14
- 8 Logging, data protection and privacy 14
- 9 Usability and the environment..... 15
- Annex A (informative) Examples of attack potential ratings 16
 - A.1 General..... 16
 - A.2 Framework for the calculation of attack potential 16
 - A.3 Considerations for rating factors in ABC systems 18
 - A.3.1 Overview 18
 - A.3.2 Elapsed time..... 18
 - A.3.3 Window of opportunity: Access to the TOE 18
 - A.3.4 Window of opportunity: Access to biometric characteristics..... 19

A.4	Examples of application to ABC systems.....	19
A.4.1	Overview.....	19
A.4.2	Impostor Attack against a face-based ABC system in an eMRTD credential verification scenario.....	19
A.4.3	Impostor Attack against a fingerprint-based ABC system for Identification in a Registered Traveller Programme scenario.....	20
A.4.4	Concealer Attack against a watchlist in an ABC system.....	21
	Bibliography	23