ISO/IEC 19785-3:2025-07 (E)

Information technology - Common Biometric Exchange Formats Framework - Part 3: Patron format specifications

Contents

Page

Foreword ... viii

Introduction ... ix

1 Scope ... 1

2 Normative references ... 1

3 Terms and definitions ... 1

4 Symbols and abbreviated terms ... 2

5 Conformance ... 2

6 ASN.1 type definitions for CBEFF data elements and abstract values ... 3
6.1 General ... 3
6.2 CBEFF data elements type definitions module ... 3

7 Patron format specification: Simple bit-oriented patron format (deprecated) ... 8
7.1 Patron ... 8
7.2 Patron format owner ... 8
7.3 Patron format name ... 8
7.4 Patron format type ... 8
7.5 ASN.1 OID for this patron format ... 8
7.6 Domain of use ... 8
7.7 Version identifier ... 9
7.8 CBEFF version ... 9
7.9 General ... 9
7.10 ASN.1 Specification ... 9

8 Patron format specification: Simple byte-oriented patron format ... 10
8.1 Patron ... 10
8.2 Patron format owner ... 10
8.3 Patron format name ... 10
8.4 Patron format type ... 10
8.5 ASN.1 OID for this patron format ... 10
8.6 Domain of use ... 10
8.7 Version identifier ... 10
8.8 CBEFF version ... 10
8.9 General ... 10
8.10 Patron format specification ... 11
8.11 ASN.1 Specification ... 11

9 Patron format specification: Presence byte-oriented patron format ... 11
9.1 Patron ... 11
9.2 Patron format owner ... 11
9.3 Patron format name ... 12
9.4 Patron format type ... 12
9.5 ASN.1 OID for this patron format ... 12
9.6 Domain of use ... 12
9.7 Version identifier ... 12
9.8 CBEFF version ... 12
9.9 General ... 12
9.10 Specification ... 12
9.11 ASN.1 Specification ... 14

10 Patron format specification: Presence bit-oriented patron format 15
10.1 Patron 15
10.2 Patron format owner 15
10.3 Patron format name 15
10.4 Patron format type 15
10.5 ASN.1 OID for this patron format 15
10.6 Domain of use 16
10.7 Version identifier 16
10.8 CBEFF version 16
10.9 General 16
10.10 ASN.1 Specification 16

11 Patron format specification: TLV-encoded patron format, for use with smartcards or other tokens (with implicit tag allocation authority) - deprecated 17
11.1 Patron 17
11.2 Patron format owner 18
11.3 Patron format name 18
11.4 Patron format type 18
11.5 ASN.1 OID for this patron format 18
11.6 Domain of Use 18
11.7 Version identifier 18
11.8 CBEFF version 18
11.9 General 18
11.10 ASN.1 specification 21
11.11 Tabular representations 22
11.11.1 The Biometric Information Template used for on-card biometric comparison 22
11.11.2 The Biometric Information Template used for off-card biometric comparison 24
11.12 The Biometric Information Template Group Data Object 25
11.13 Abstract values and encodings for biometric type and subtype 25
11.14 Patron format conformance statement 26
11.14.1 Identifying information 26
11.14.2 CBEFF-defined data elements and abstract values 26
11.14.3 Patron-defined data elements and abstract values 27

12 Patron format specification: Complex patron format 27
12.1 Patron 27
12.2 Patron format owner 27
12.3 Patron format name 27
12.4 Patron format type 27
12.5 ASN.1 OID for this patron format 27
12.6 Domain of use 27
12.7 Version identifier 28
12.8 CBEFF version 28
12.9 General 28
12.10 Specification 28
12.11 Illustrative examples 32
12.12 ASN.1 definition (provided for illustrative purposes only) 35

13 Patron format specification: XML-full patron format (with additional data elements) 36
13.1 Patron 36
13.2 Patron format owner 36
13.3 Patron format name 36
13.4 Patron format type 36
13.5 ASN.1 OID for this patron format 36
13.6 Domain of use 37
13.7 Version identifier 37
13.8 CBEFF version 37
13.9 General 37
13.10 Specification 37
13.11 Element <BIR> 38
13.11.1 Syntax 38
13.11.2 Semantics 39
13.12 Element <Version> 39

13.12.1 Syntax 39
13.12.2 Semantics 40
13.13 Element <CBEFFVersion> 40
13.13.1 Syntax 40
13.13.2 Semantics 40
13.14 Element <BIRInfo> 41
13.14.1 Syntax 41
13.14.2 Semantics 41
13.15 Element <BDBInfo> 42
13.15.1 Syntax 42
13.15.2 Semantics 43
13.16 Element <Format> of BDBInfoType 47
13.16.1 Syntax 47
13.16.2 Semantics 47
13.17 Element <Product> 48
13.17.1 Syntax 48
13.17.2 Semantics 48
13.18 Element <CaptureDevice> 48
13.18.1 Syntax 48
13.18.2 Semantics 48
13.19 Element <FeatureExtractionAlgorithm> 48
13.19.1 Syntax 48
13.19.2 Semantics 49
13.20 Element <ComparisonAlgorithm> 49
13.20.1 Syntax 49
13.20.2 Semantics 49
13.21 Element <CompressionAlgorithm> 49
13.21.1 Syntax 49
13.21.2 Semantics 49
13.22 Element <Quality> 50
13.22.1 Syntax 50
13.22.2 Semantics 50
13.23 Element <Algorithm> 50
13.23.1 Syntax 50
13.23.2 Semantics 50
13.24 Element <SBInfo> 50
13.24.1 Syntax 50
13.24.2 Semantics 51
13.25 Element <Format> of SBInfoType 51
13.25.1 Syntax 51
13.25.2 Semantics 51
13.26 Representation of Integers 51
13.27 Representation of Octet Strings 51
13.28 Representation of Date and Time of the Day 52
13.29 Representation of Universally Unique Identifiers 52
13.30 XML schema of the patron format 53
13.31 An example of a simple BIR in XML encoding (conforming with the ASN.1 schema, the XSD schema, and the normative textual description) 56
13.32 An example of a complex BIR in XML encoding (conforming with the ASN.1 schema, the XSD schema, and the normative textual description) 57

14 Patron format specification: full-complex patron format 60
14.1 Patron 60
14.2 Patron format owner 60
14.3 Patron format name 60
14.4 Patron format type 60
14.5 ASN.1 OID for this patron format 60
14.6 Domain of use 60
14.7 Version identifier 60
14.8 CBEFF version 61
14.9 General 61
14.10 Specification 61

14.11 Illustrative examples 67
14.12 ASN.1 definition (provided for illustrative purposes only) 70

15 Patron format specification: Biometric application programming interface (BioAPI 2.0) 71

16 Patron format specification: Self-identifying Tag-oriented Simple BIR 71
16.1 Patron 71
16.2 Patron format owner 71
16.3 Patron format name 71
16.4 Patron format type 71
16.5 ASN.1 OID for this patron format 71
16.6 Domain of use 72
16.7 Version identifier 72
16.8 CBEFF version 72
16.9 General 72
16.10 Specification 73
16.11 Illustrative examples 77
16.12 ASN.1 definition 77

17 Patron format specification: Self-identifying, Tag-oriented Complex BIR 81
17.1 Patron 81
17.2 Patron format owner 81
17.3 Patron format name 81
17.4 Patron format type 81
17.5 ASN.1 OID for this patron format 82
17.6 Domain of use 82
17.7 Version identifier 82
17.8 CBEFF version 82
17.9 General 82
17.10 Specification 83
17.11 Illustrative example 84
17.12 ASN.1 definition 84

18 Patron format specification: PAD patron format (Linking BDB with PAD Sample) 86
18.1 Patron 86
18.2 Patron format owner 87
18.3 Patron format name 87
18.4 Patron format type 87
18.5 ASN.1 OID for this patron format 87
18.6 Domain of use 87
18.7 Version identifier 87
18.8 CBEFF version 87
18.9 General 87
18.10 Specification 88
18.11 Illustrative example 89
18.12 ASN.1 definition 90

19 Patron format specification: TLV-encoded patron format for ICCs and other tokens (with explicit tag allocation authority) 92
19.1 Patron 92
19.2 Patron format owner 93
19.3 Patron format name 93
19.4 Patron format type 93
19.5 ASN.1 OID for this patron format 93
19.6 Domain of Use 93
19.7 Version identifier 93
19.8 CBEFF version 93
19.9 General 93
19.10 Tabular representations for information 95
19.10.1 The Biometric Information Template used for on-card biometric comparison 95
19.10.2 The Biometric Information Template used for off-card biometric comparison 98
19.11 The Biometric Information Template Group Data Object 101
19.12 Abstract values and encodings for biometric type and subtype 101
19.13 Illustrative examples 101

Annex A (informative) **Guidelines on the specification of patron formats** **102**
Annex B (informative) **Conformance of the defined patron formats** **106**
Annex C (informative) **Coding specifications for tagged patron formats** **116**
Annex D (informative) **Information and clarifications to Clause 11** **131**
Annex E (informative) **Sample ASN.1 Module for TLV-encoded patron formats for ICCs and other tokens (with explicit tag allocation authority)** **135**
Bibliography **142**