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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 28826.3-2023

**Information technology - Common biometric exchange formats
framework - Part 3: Patron format specifications
(English Translation)**

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting:

This document is part 3 of GB/T 28826 "Framework for Public Biometric Identification Interchange Formats for Information Technology": GB/T 28826 the following parts have been released:

- Part 1: Data element specification;
- Part 2: Operating procedures for biometric identification registration agencies;
- Part 3: Maintainer format specification;
- Part 4: Security block format specification:

This document is modified to adopt ISO/IEC 19785-3:2020 "Information Technology Public Biometric Identification Interchange Format Framework Part 3 Sub: Maintainer Format Specification:

Compared with ISO/IEC 19785-3:2020, this document has more structural adjustments, and the structure number changes between the two documents are compared See Appendix A for a list: Because Chapter 7 of ISO/IEC 19785-3:2020 has been abolished, this document is not adopted:

Compared with ISO/IEC 19785-3:2020, this document has many technical differences:

Marked with a single vertical line (|): See Appendix B for a list of these technical differences and their causes:

The following editorial changes have been made to this document:

- a) The table names and related references of Table 10, Table 11, and Table 12 (see 10.14:1, 10.14:2) are added to facilitate the understanding of this document and application;
- b) Deleted the table names and related references of Table 13, Table 19 and Table 24 (see 11.11, 12:11, 17:11) to facilitate the understanding of this document and applications;
- c) Modified all table numbers and related references (see Table 1 to Table 27) to facilitate the understanding and application of this document;
- d) Replaced ISO/IEC 2382-37 (see F:7) with the informatively quoted GB/T 5271.37 to adapt to biometric identification in my country different vocabulary specifications;
- e) Replaced ISO 8601 with informative references to GB/T 7408 (see 11.9:7, 11:10, 12:28:1, 13:9:7, 13:10, 15:9:6, 15:10, 16:9:9, 16:10, 17:9:6, 17:10), in order to adapt to the identity verification through biometric identification methods of identification cards in my

country certificate specification;

f) Replaced ISO/IEC 10646 (see C:7:1) with the informative referenced GB/T 13000 to adapt to the encoding format of our country;

g) Replaced ISO/IEC 8825-1 with informative references to GB/T 16263.1 (see 10.9:4, 18:9:2, 18:9:4, 18:11:1, 18:11:2), to adapt to the encoding format of our country;

h) Replaced ISO/IEC 7816-11 with informative references to GB/T 16649.11 (see 3.1, 10:9:3, 10:9:4, 10:9:5, 10:10, 18:6, 18:9:3, 18:9:4, 18:9:5, 18:9:6, 18:11:1, 18:11:2, 18:12, 18:14, F:6, F:9), to suit I Specifications for identity verification via biometric methods for national identification cards;

i) Added GB 18030 Information Technology Chinese Coded Character Set (see 12.14:1:1, 12:14:2:4, 12:16:1, 12:17:1, 12:18:1, 12:19:1, 12:20:1, 12:21:1, 12:22:1, 12:23:1, 12:25:1), to adapt to my country's coded character standards;

j) Replaced ISO/IEC 19784-1 (see 14, D:2, D:3, D:4) with the informative referenced GB/T 30267.1 to adapt to my country's production object feature recognition API:

Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents:

Introduction

Biometric-based authentication systems and applications are expected to support multiple biometric devices from different vendors:

The Common Biometric Exchange Format Framework (CBEFF) facilitates the development by different vendors by simplifying the exchange of biometric data interoperability of biometric applications and systems:

GB/T 28826 "Information Technology Public Biometric Identification Interchange Format Framework" consists of 4 parts:

--- Part 1: Data element specification: The aim is to define a standardized project enabling the exchange of biometric data:

--- Part 2: Operating procedures for biometric registration agencies: The purpose is to provide for domestic biometric identification registration marks Requirements for identifiers, registration agencies, registration procedures, registration applications, and registration maintenance:

--- Part 3: Maintainer format specification: The purpose is to CBEFF biometric identification organization ISO/IEC JTC1/SC37 Defined and described according to the 12 maintainer format specifications registered in ISO/IEC 19785-2:

--- Part 4: Security block format specification: The purpose is to CBEFF biometric

identification organization ISO/IEC JTC1/SC37 Defined, two security block formats registered according to ISO/IEC 19785-2, and the National Information Technology Standardization Technical Committee it is defined by Biometric Identification Subcommittee (SAC/TC28/SC37) and registered according to GB/T 28826.2:

The full block format specification is described:

ISO/IEC 19785-1 "Information Technology Public Biometric Identification Interchange Format Framework Part 1: Data Element Specification" defines the following projects enable the standardization of biometric data exchange:

- a) The 3-part standardized structure of the Biometric Information Record (BIR), including:
 - Standard Biometric Header (SBH);
 - Biometric Data Block (BDB, which can be standardized or proprietary);
 - Security block (SB, optional);
- b) Changes to the 3-part structure to support the BIR, including:
 - Simple CBEFFBIR: only one SBH, at least one BDB, possibly one SB;
 - Self-identifying simple CBEFFBIR: at least one or more BDBs, possibly one SB;
 - complex CBEFFBIR, multiple CBEFFBIR: more than one BDB and some SBH needed to encode the BIR structure and a certain amount of SB;
- c) The concept of self-identification, applicable to any variation of the 3-part structure of the BIR, using the "SBIR" field:
- d) More than 40 data elements and their associated abstract values, which can describe the attributes of the BDB in the BIR as well as the BIR itself in the SBH properties:
- e) the concept of the CBEFF maintainer format, which is a detailed specification of a specific, standardized BIR structure and content (but ISO/IEC 19785-1 itself does not define any maintainer format): Its registration work meets the requirements of ISO/IEC 19785-2 Requirements, the domestic biometric registration work meets the requirements of GB/T 28826.2:
- f) The concept of CBEFF maintainers, a public standards organization, has registered with BRA and announced plans to define CBEFF maintainers format specification:
- g) The concept of the BRA, which provides for the organization (standards organizations, suppliers and others) who create the BDB format and the CBEFF maintainer format organization) mechanism for assigning unique identifiers (ISO/IEC 19785-2 defines biometric objects and organizations registered by the BRA identification scheme):
- h) The CBEFF data element [see c) above], within the SBH, supports the unique identification assigned by the BRA for the biometric organization character, BDB format,