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

GB/T 40784.1-2021

**Information technology. Biometric profiles for interoperability
and data interchange - Part 1: Overview of biometric systems
and biometric profiles**

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Foreword

GB/T 40784 "Information Technology for Interoperability and Data Exchange Biometric Profile" is planned to be divided into the following parts.

---Part 1. Overview of the biometric system and biometric profile;

---Part 2. Physical access control for airport employees;

---Part 3. Seafarer verification and identification based on biological characteristics.

This part is Part 1 of GB/T 40784.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

The translation method used in this Part is equivalent to the adoption of ISO /IEC 24713-1.2008 "Information Technology for Interoperability and Data Exchange Biological Features"

Character recognition contours. Part 1. Overview of biometric recognition systems and biometric contours.

This section has made the following editorial changes.

--- Deleted the ambiguous sentence in 7.1, "This form of interface can (but does not have to) appear on the same physical computer

The above is the most common interface form and is supported by the BioAPI specification".

Introduction

This part of GB/T 40784 is intended to form an overview of a multi-part standard for biometric identification profiles for interoperability and data exchange

part. It describes the pattern of using multiple biometric identification standards. This section is not intended to replace or oppose other biometric identifiers.

Any other part of the standard, but as a reference guide for the implementation of a general biometric system or a standardized system profile.

This section provides users with general information and guidance on the biometric system, as well as multiple

The use of basic standards to support the interoperability and data exchange between biometric applications and systems.

This part is one of a series of standards developed by the Biometric Recognition Sub-Committee to support the interoperability between biometric recognition applications and systems

And data exchange. This series of standards stipulates the requirements for solving the complexity of biometrics in various identity authentication applications.

Discuss whether such applications run in an open system environment or consist of a single closed system.

Note. The open system is built on standard-based open data formats, interfaces and protocols to promote data exchange and interoperability with other systems.

The system may include different designs or components. Closed systems can also be built on publicly defined standards, and can include different designs or components, but no data

is required.

Data exchange and interoperability with any other system.

The biometric data exchange format standard and the biometric interface standard are for the biometric system in the open system environment

Achieving comprehensive data exchange and interoperability is essential. In the biometric identification standards developed by the Biometric Identification Sub-Technical Committee

Including a set of standards consisting of a biometric data exchange format and a biometric

The biometric profile used in the application field.

---The standard for the exchange format of biometric data stipulates the method of exchanging and recording biometric data in different biometric modalities. In advance

The parties that have reached a consensus on the biometric data exchange records specified in the biometric data exchange format standard should be able to

Data is analyzed and identified. If all parties have built a system based on the standard of the biometric data exchange format, even if

There is no agreement on the specific biometric data exchange format used, and all parties should be able to perform biometric data exchange.

Parsing.

---Biometric identification interface standards include Common Biometric Identification Exchange Format Framework (CBEFF) and biometric identification applications

Programming interface (BioAPI), used to support the exchange of biometric data between systems. The CBEFF standard stipulates standardized production

The basic structure of a physical characteristic information record (BIR), which includes a biometric exchange record with additional metadata, such as the time of collection

Time, validity period, whether it is encrypted, etc. The BioAPI standard specifies an open system API that supports software applications and underlying biology

Communication between feature recognition technology services. BioAPI also specifies the CBEFF for the storage and transmission of data generated by BioAPI.

BIR format.

The biometric profile standard promotes the implementation of basic standards (for example, the biometric data submission of the biometric sub-committee

Change format standard and interface standard and possible non-biometric identification standard). The profile standard defines the function of the application (e.g., machine

Field employees' physical access control), and then explained the use of specific options in the basic standards to ensure the mutual

operate.

Information technology for interoperability and data exchange

Biometric profile recognition part 1.biometrics

Recognition system overview and biometric profile

1 Scope

This part of GB/T 40784 specifies the functional modules and components of the universal biometric identification system, and clarifies the distinctive features of each component.

At the same time, combined with the basic standards related to biometrics, it provides a general biometric reference system architecture to support biometrics.

Interoperability and data exchange between systems.

This part is suitable for guiding the preparation and implementation of basic standards such as biometric system interfaces and data exchange formats to improve biometrics

Identify the interoperability between systems.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

ISO /IEC 19794-1.2006 Information Technology Biometric Data Exchange Format Part

1.Framework (Information

technology-Biometricdatainterchangeformats-Part 1.Framework)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Application programming interface application programming interface; API

A software-based interface can be used for communication and connection between applications and biometric systems.

Note 1.API is computer code, which can be used by application developers. Any biometric