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

GB/T 32629-2016

**Information technology -- Biometric BioAPI interworking
protocol**

信息技术 生物特征识别应用程序接口的互通协议

(English Translation)

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Foreword

This standard is drafted in accordance with the rules given in GB/T 1.1-2009.

This standard uses the translation method equivalent to ISO/IEC 24708.:2008 "Information technology biometric identification application program interface interoperability Agreement "(English version).

And the normative reference in this standard international documents are consistent with the relationship between China's documents are as follows.

--- GB/T 26237 (all parts) Information technology Biometric identification Data interchange format [ISO/IEC 19794 (all ministry Minute)] GB/T 28826.1-2012 Information technology - Public biometric identification interchange format framework - Part 1. Data element specification Fan (ISO/IEC 19785-1.:2006, MOD) this standard has made the following editorial changes.

--- in the normative reference documents, with the equivalent of international standards GB/Z15629.1-2000 instead of ISO/IEC TR8802-1.:1997;

--- in the normative reference document, with the equivalent of international standards GB/T 16262.1-2006 instead of ISO/IEC 8824-1.:2002;

--- in the normative reference document, with the equivalent of international standards GB/T 16263.2-2006 instead of ISO/IEC 8825-2.:2002;

- in the normative reference document, with the equivalent of international standards GB/T 30267.1-2013 instead of ISO/IEC 19784-1.:2006;

- In the normative reference file, the following files not referenced in the standard text are deleted. ITU-T Recommendation X.667 (2004) | ISO/IEC 9834-8.:2005, ITU-T Recommendation X.681 (2002) | ISO/IEC 8824-3.:2002, ITU-TREC-2, 2002, ITU-T Recommendation X.682 (2002) | ISO/IEC 8824-4.:2002, ITU-T Recommendation X.693 (2001) | ISO/IEC 8825-4.:2002, ITU-T Recommendation X.693 (2001) /Amd.1 (2003) | ISO/IEC 8825-4.:2002/Amd.1..2004, IETF RFC791 (1981), IETF RFC793 (1981), IETF RFC1945 (1996), IETF RFC2616 (1999), IETF RFC2818 (2000);

--- The original data in the standard Appendix G modified as a reference.

Introduction

This standard BioAPI Interworking Protocol (BIP) specifies the syntax, semantics and coding of a set of messages (BIP messages) that conform to BioAPI Applications can perform biometric identification at the BioAPI Biometric Services Provider (BSP) across nodes or across process boundary requests Operation, and can receive remote BSP primary event notification. This standard also specifies support for the creation, processing, transmission and reception of BIP messages the architecture and behavior of the BioAPI framework (see GB/T 30267.1-2013).

The BIPs set forth in this standard are designed to enable compliance with this standard to be implemented without having to support the full functionality of the BioAPI framework. This standard is defined Several classes of varying degrees of conformance make it possible to provide support for BioAPI-compliant or BioAPI-compliant BSPs when it is not possible or desirable in case of holding, it is possible to create a lightweight implementation that complies with this standard.

The protocol information specified in this standard adopts the ASN.1 marking method (see GB/T 16262.1-2006).

Chapters 7 through 11 provide an informative overview and provide a normative definition from Chapter 12 (including some appendices).

Chapter 7 describes the BIP architecture.

Chapter 8 describes the mechanism for remote GUI event notification.

Chapter 9 gives examples of system configuration using BIP.

Chapter 10 describes the format of biometric data converted by BIP.

Chapter 11 describes the BIP endpoint, application, and BSP identification.

Chapter 12 outlines BIP message exchange.

Chapter 13 contains general provisions for other chapter calls.

Chapter 14 specifies the general syntax of BIP messages.

Chapter 15 specifies the mapping between the BioAPI type and the corresponding ASN.1 type as the BIP message component.

Chapter 16 specifies the syntax of some BIP messages, as well as the receipt of a BioAPI function call or a call to a BioAPI function BIP message when the operation.

Chapter 17 specifies the syntax of some BIP messages, as well as the receipt of a BioAPI function callback or a callback to the BioAPI function BIP message when the operation.

Chapter 18 specifies the concept tables used in the implementation.

Chapters 19 through 33 contain specific provisions for other chapter calls.

Appendix A is a normative appendix that specifies the BIP TCP/IP binding.

Appendix B is a normative appendix that specifies additional specifications for BIP TCP/IP bindings.

Appendix C is a normative appendix that specifies the SOAP/HTTP binding for BIP.

Appendix D is an informative appendix that gives the minimum requirements for a simple system.

Appendix E is an informative appendix that provides examples of scenarios that may use BIP.

Appendix F is a normative appendix that contains the BIP complete ASN.1 specification.

Information technology biometrics application program interface of the interworking agreement

1 Scope

1.1

This standard specifies the syntax, semantics and coding of BIP messages so that BioAPI-compliant applications can be used across nodes or across process boundaries.

The BioSPI-compliant BSP performs biometric identification operations and is able to receive remote BSP primary event notifications.

Note: Local and remote nodes or processes can contain BSPs that provide the storage and retrieval, processing, or alignment of such biometric information records, or to collect biometric samples from one or more biometric sensors. A single node or process may contain both access to

remote BSPs (one or more) Multiple) applications, as well as BSPs that are accessed by remote applications (one or more).

1.2

This standard also specifies the architecture and behavioral extensions of the BioAPI framework to support the creation, processing, transmission and reception of BIP messages. symbol the standard BioAPI framework (ie "BIP Enabled Framework") can be created, processed, sent and received with BioAPI function calls and callback close Associated BIP message. The outgoing BIP message can be generated and sent by the framework as part of the handle of the incoming call or callback. pass the incoming BIP message, like the received call or callback, can cause the framework to perform operations.

1.3

This standard explicitly allows a software entity ("General BIP Entity") that is not necessarily a "BIP Enabled Framework" to create, process, send, and Receive BIP message.

Note: This provision makes it possible to create a case where it is not possible or required to support BioAPI-compliant or BioAPI-compliant BSPs Lightweight implementation in accordance with this standard. BIP messages created and sent in a generic BIP entity are created and sent with a BIP enabled framework BIP messages, the outside can not see any difference. However, the BIP-enabled framework should perform both BIP messages and BioAPI function calls comprehensively and correctly Callback, and there is no such requirement for a generic BIP entity (see Chapter 6).

1.4

This standard specifies the use of several common transport protocols for BIP messaging between a pair of software entities ("BIP Endpoints").

1.5

Standardization of biometric data blocks (raw, intermediate state or processed biometric samples) is not standardized in this standard Inside.

Note: The standardization of such formats is specified by ISO/IEC 19794.

1.6

biometric information records (each record contains one or more biometric data blocks and identification information and other meta information) Standardization is not within the scope of this standard.

Note: The standardization of elements of this type of format is defined by ISO/IEC 19785-1.:2006, which also includes a large number of standardized biometric information records Type of specification.