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

GB/T 29268.6-2022

**Information technology - Biometric performance testing and
reporting - Part 6: Testing methodologies for operational
evaluation**

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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 of Standardization Documents" drafted.

This document is part 6 of GB/T 29268 "Information Technology Biometric Performance Testing and Reporting". GB/T 29268 has

The following sections were published.

- Part 1. Principles and Frameworks;
- Part 2. Test methods for technical and scenario evaluation;
- Part 3. Modal specificity testing;
- Part 4. Interoperability performance testing;
- Part 5. Access control scenarios and classification mechanisms;
- Part 6. Test methods for operational evaluation.

This document is equivalent to ISO /IEC 19795-6:2012 "Information Technology Biometric Performance Testing and Reporting Part 6.

Test Methods for Operational Evaluation".

Compared with ISO /IEC 19795-6:2012, this document makes the following permitted structural adjustments.

- Chapter 2 corresponds to Chapter 3 in ISO /IEC 19794-6:2012;
- Chapter 3 corresponds to Chapter 4 in ISO /IEC 19794-6:2012;
- Chapter 4 corresponds to Chapter 2 in ISO /IEC 19794-6:2012.

Please note that some content of this document may be patented. The issuing agency of

this document assumes no responsibility for identifying patents.

Introduction

GB/T 29268 "Information Technology Biometrics Performance Test and Report" is proposed to consist of seven parts.

--- Part 1.Principles and frameworks. The purpose is to define general principles and frameworks for testing and reporting the performance of biometric systems.

--- Part 2.Test methods for technical and scenario evaluation. The purpose is to specify techniques and scenarios in biometric performance testing evaluation method.

--- Part 3.Modal specificity testing. A performance measure aimed at specifying differences in specificity between modalities in biometric systems.

try method.

--- Part 4.Interoperability performance testing. Tests aimed at specifying interoperability associated with biometric formats method.

--- Part 5.Access control scenarios and classification mechanisms. The purpose is to specify access control fields in a general biometric system

Quantitative expression of the test method of the scene and the classification mechanism of the performance level.

--- Part 6.Test methods for operational evaluation. The purpose is to specify the principles and operation of operational tests in biometric systems

System performance indicators.

--- Part 7.On-card biometric identification comparison algorithm test. The purpose is to specify the measurement of the biometric identification comparison algorithm on the card. try method.

Biometrics performance testing covers three types. technical testing, scenario testing, and operational testing. Technical testing is based on biological characteristics

The performance test of the biometric identification system based on the signature sample database; the scenario test refers to the establishment of test objects according to the distribution of the established testers, and the simulation of

Real application scenarios are tested, and factors such as failure to obtain biometric samples and registration failure of personnel in registration or identification transactions are

considered.

elements, such as access control scenarios. Running the test refers to the test object composed of actual users to test in the actual application scenario. For testing

Testers, in general, are not known to correctly label the data. Operational evaluation differs from technical or scenario evaluation in that object-based,

Environments and system designs are no longer limited by the purpose of repeatable testing, but vary according to operational use. Examples of uncontrolled variables include primary

legality of individual identity claims, environmental influences from weather or lighting, or variability in the use of the system by different people.

GB/T 29268 regulates biometric performance testing and reporting from the above three test types, and specifies the original

This document specifies the test methods for the operational evaluation of biometric recognition performance, and its

The overall goal is to measure or monitor the performance of a biometric system over a period of time. Test items for running tests may include.

- Determining whether performance meets specific application-specific requirements or supplier requirements;
- Determine if the system needs to be tuned or configured to improve performance;
- predict performance changes as the number of objects, locations or devices increases;
- Obtain information about the target population and environmental parameters affecting system performance;
- Obtain performance data from pilot implementations;
- Obtain performance data to benchmark future systems.

Information Technology Biometric Performance Testing and Reporting

Part 6. Test Methods for Operational Evaluation

1 Scope

This document.

- Provide guidance for the operational testing of biometric identification systems;
- specifies the performance indicators of the operating system;
- Refinement of data that may be retained by the operating system to support

performance monitoring;

--- Specifies the requirements for test methods, data recording and reporting of operational evaluation results.

NOTE. Some biometric operating systems perform a single biometric function. For example, during the initial stages of biometric passport issuance, the operating system

The system may only perform biometric registration. Operational evaluation of such systems is within the scope of this document.

This document does not have.

--- tests covering laboratory operating systems;

--- Resolved vulnerability testing.

2 Normative references

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, dated citations

documents, only the version corresponding to that date applies to this document; for undated references, the latest edition (including all amendments) applies to this document.

ISO /IEC 19795-1 Information technology biometric performance testing and reporting - Part 1.Principles and framework

work)

Note. GB/T 29268.1-2012 Information Technology Biometrics Performance Testing and Reporting Part 1.Principles and Framework (ISO /IEC 19795-1.

2006, IDT)

3 Terms and Definitions

The terms and definitions defined in ISO /IEC 19795-1 and the following apply to this document.

3.1

Environmental adaptation acclimatization

A change in a biometric characteristic during one or more transactions may affect the ability of the system to process the sample.

NOTE. Environmental adaptation is primarily related to the subject's temporal adjustment to environmental influences such as skin temperature.