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

GB/T 27926.4-2021

**Financial services - Universal financial industry message
scheme - Part 4: XML Schema generation**

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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"

Drafting.

This document is part 4 of GB/T 27926 "General Messaging Plan for Financial Services and Financial Industry". GB/T 27926 has been released

The following parts.

- Part 1. Metamodel;
- Part 2. Overview of UML;
- Part 3. Modeling Guidelines;
- Part 4. XML Schema generation;
- Part 5. Reverse Engineering;
- Part 6. Message transmission characteristics;
- Part 7. Registration;
- Part 8. ASN.1 generation.

This document replaces GB/T 27926.4-2011 "Financial Services Financial Industry General Messaging Scheme Part 4. XML Design Rules",

Compared with GB/T 27926.4-2011, in addition to structural adjustments and editorial changes, the main technical changes are as follows.

- a) Added "Background" (see Chapter 4);
- b) Added "Message Set Conversion Rules" (see Chapter 5);
- c) Deleted "UML to XML conversion", "XML schema features adopted", and informative appendix "XML acronyms" (see

Chapter 3, Chapter 4, Appendix A of the 2011 edition).

The translation method used in this document is equivalent to the adoption of ISO.20022-4.2013 "Financial Services and Financial Industry General Messaging Program Part 4.

XMLSchema Generation".

The Chinese documents that have consistent correspondence with the normatively cited international documents in this document are as follows.

---GB/T 27926.1-2021 General Messaging Scheme for Financial Services and Financial Industry Part 1. Metamodel (ISO.20022-1.

2013, IDT)

This document was submitted by the People's Bank of China.

This document is under the jurisdiction of the National Financial Standardization Technical Committee (SAC/TC180).

Drafting organizations of this document. China Financial Electronics Corporation, China Foreign Exchange Trading Center and National Interbank Funding Center, China Industry and Commerce

Bank Co., Ltd., Agricultural Bank of China Co., Ltd., China Construction Bank Co., Ltd., and the People's Bank of China in Chongqing

Management Department, China UnionPay Co., Ltd., China National Debt Depository and Clearing Co., Ltd., Cross-border Interbank Payment and Clearing Co., Ltd.,

China Merchants Bank Co., Ltd., China Securities Depository and Clearing Co., Ltd., China Everbright Bank Co., Ltd.

Introduction

GB/T 27926 defines a scalable and systematic process to ensure the consistency of message descriptions in the entire financial industry. The purpose is fine

Describe the externally observable method of message delivery in the financial industry accurately and completely. This method can be independently verified with running message delivery.

The production of ISO.20022 is based on open technical standards. Usually, the development speed of technical standards is faster than the industry itself. because

Therefore, the document adopts a model-driven approach, in which the industry message collection model can be independently separated from the development of message technology.

ISO.20022 emerged with the widespread commercial adoption of the World Wide Web. Extensible Markup Language (XML) in the form of document representation on the Web

The de facto standard appeared and became the first grammar of ISO.20022.

GB/T 27926 consists of the following parts.

- Part 1. Metamodel;
- Part 2. Overview of UML;
- Part 3. Modeling Guidelines;
- Part 4. XML Schema generation;
- Part 5. Reverse Engineering;
- Part 6. Message transmission characteristics;
- Part 7. Registration;
- Part 8. ASN.1 generation.

Compared with GB/T 27926-2011, 5 parts were revised and 3 parts were added. The new parts are.

- Part 2. Overview of UML;
- Part 6. Message transmission characteristics;
- Part 8. ASN.1 generation.

8 parts of GB/T 27926-2021 "General Message Scheme for Financial Services and Financial Industry" are equivalent to 8 parts of ISO.20022-2013

part.

In addition to the message technical standards, the modeling process is further refined into three layers, which is why this document is based on four layers. scope layer, concept

Layer, logical layer and physical layer. The first, second and third layers are described in the Unified Modeling Language (UML) because it is widely supported

And supports multi-layer abstraction. The models created according to this document are independent of technology, as they do not require any specific physical expressions

Or realize. These models are designed to describe all parts of the message exchange and constitute the definition of the agreement between the participants in the message exchange. This document defines

It defines a method that describes the process of modelers creating and maintaining these models.

ISO.20022 aims to build a standardized and complete message development plan to improve the efficiency of information exchange and development in the financial industry and reduce message movement.

The maintenance cost of the bank is planned to be composed of the following parts.

---Part 1. Metamodel. The meta-models of all models and libraries are described in the Meta Object Tool (MOF), the purpose is to introduce the modeling method

Method summary, summary of library content, abstract description of the input and output of the library acceptable to the registrar.

---Part 2. Overview of UML. Covers UML profile, which is the basis of a general UML, which is defined by this standard

Specific subset (used when UML is selected to define the model). The purpose is to describe the definition, overall structure, and meta-model of the extension set

Metaclass attributes involved in each layer to UML implementation, so that message developers can better understand the UML extension set and its various levels

UML implementation.

---Part 3. Modeling Guidelines. Describes the modeling method used to generate the model for this document. The purpose is to explain the message model to the modeler

The steps of model establishment ensure the consistency of business components/elements, message components/elements, business transactions and message definitions. This part

It is aimed at the concrete realization of the business of modeling in Part 1 and Part 2.

---Part 4. XMLSchema generation. The purpose is to introduce XMLSchema generation rules, which are used to transform the logical layer model

It is the physical layer of the grammar description.

---Part 5. Reverse Engineering. Covers logical model alignment and reverse engineering of existing message syntax. The purpose is to introduce reverse engineering

The main stages in the process and the inputs, outputs and activities of each stage.

---Part 6. Message transmission characteristics. The purpose is to introduce the parameters of the message transmission system required for business transactions and message definitions.

Confirm the parameter difference in different transmission modes of the message.

---Part 7. Registration. Describes the process of management model registration and physical grammar realization. The purpose is to indicate the applicant institution and