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

JR/T 0066.1-2019

Replacing JR/T 0066-2011

**Interbank market information exchange protocol - Part 1:
Syntax, structure and session layer
(English Translation)**

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Foreword

JR/T 0066 "Interbank Market Business Data Exchange Agreement" is divided into 3 parts.

- Part 1. Grammar, structure and conversation layers;
- Part 2. Application layer;
- Part 3. The appropriate flow presentation layer.

This part is the first part of JR/T 0066.

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

This section replaces the protocol syntax structure, session mechanism, and session of JR/T 0066-2011 "Interbank Market Business Data Exchange Protocol" the relevant content of the layer message, the content that is not replaced is included in the second part of JR/T 0066. This part is similar to the replacement part of JR/T 0066-2011 Compared with the editorial changes, the main technical changes are as follows.

- Added normative references (see section 2);
- Revised and added some terms and definitions (see section 3, section 2 of the 2011 edition);
- Modified the contents of the message syntax and structure (see Chapter 4, Chapter 4 of the 2011 edition and 5.1, 5.2, 5.3)
- Modified the content of session transmission (see section 5, 2011 version sections 3.1, 3.2, 3.3, 3.4, 3.5, 3.6 and 3.7);

--- Modified the content of session management (see section 6, 2011 version 3.8 and 3.9);

--- Modified the contents of session messages and components (see section 7, 2011 version 5.4);

-Added blockchain extension applications to adapt to international technological developments (see 4.7 and 7.2.2).

This section is proposed by China Foreign Exchange Trading Center and National Interbank Funding Center.

This section is under the jurisdiction of the National Financial Standardization Technical Committee (SAC/TC 180).

This section is responsible for drafting units. China Foreign Exchange Trading Center and National Interbank Funding Center.

Participated in the drafting of this section. Department of Science and Technology of the People's Bank of China.

1 Scope

This part of JR/T 0066 specifies the session layer communication protocol required for inter-bank transactions between participants in the inter-bank market (Interbank Market Information Exchange Protocol Transport, referred to as IMIXT), including message syntax and results Architecture, session reliable transmission specifications, session management specifications, session messages and components, etc.

This section applies to basic session communication data exchange between participants in the interbank market. This section applies to the inter-bank market Business data exchange protocol (Interbank Market Information Exchange Protocol, IMIX) message transmission interaction, Interbank market institutions include, but are not limited to, intermediary service institutions, member institutions, and other institutions using this section.

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this document.

For undated references, the latest version (including all amendments) applies to this document.

GB/T 2659 countries and regions GB/T 12406 code for currency and funds JR/T 0066.2-2019 Interbank Market Business Data Exchange Protocol Part 2. Application Layer

3 Terms and definitions

The following terms and definitions apply to this document.

Field separator

All fields in the message have a delimiter to define the delimitation.

Note: The separator is ASCII code 0x01. The field delimiter in JR/T 0066 starts with \u003cSOH\u003e Means.

Repeating group

A collection of domains consisting of the number of repetitions and several sets of homogeneous data.

Component

A set of domains composed of session messages and application messages according to certain business logic.

Message sequence number the value used to monitor the continuity of message transmission during message transmission.

Note: Use this value to judge whether the exchange data is lost.

Heartbeat

In the idle period of message exchange, the initiator and receiver of the message maintain a communication connection by generating regular heartbeat messages.

Send duplicate

Scenarios in which a packet is repeatedly sent because it responds to a retransmission request or is not sure whether the other party has received a sent packet Note. The message in this scenario should be set with "Possibly Duplicate Flag" (PossDupFlag = Y).

Resend possible resend Scenarios where the sender of the message regenerates and sends the message due to the application needs of the sender or receiver.

Note: The message in this scenario should be set with "possible resend flag" (PossResend = Y).

Sequence reset

The message used by the sender to set the expected message sequence number. There are two modes of sequence reset message. sequence reset-gap filling (SeqReset-Gap Fill), serial number reset-reset (SeqReset-Reset).

Note: SeqReset-Reset is only used in disaster recovery situations.

Valid IMIX message

Messages generated correctly according to the IMIX protocol.

3.10

Initiator

The sender of the login message.

3.11

Receiver

Receiver of the login message.

3.12

Blockchain

A peer-to-peer network environment that uses transparent and trusted rules to construct unforgeable, non-tamperable and traceable blockchain data structures Construct, implement, and manage transaction processing models.

4.1.1 Description

The data type is used to define the value type of the data field. The data type used by JR/T 0066 consists of several basic data types (integer, Floating point numbers, characters, strings, data) and data types extended on this basis. Data other than "data" data type Types are represented as ASCII strings.

4.1.2 Int

Values without commas and decimal places, which can be positive or negative (ASCII characters "-", "0" to "9"). Symbol occupy a word Character position. Leading characters can be set to zero (eg "00023" = "23").

Extended definition of integer types.

- a) Length. the length of the data in integer bytes, a positive number;
- b) Repeat number NumInGroup. the number of repeat groups is represented by an integer, a positive number;
- c) message sequence number SeqNum. the message sequence number is represented by an integer, a positive number;
- d) Field number TagNum. field number (or tag) expressed as an integer, positive number, the first digit cannot be zero;
- e) DayOfMonth. Day of the month as an integer, from 1 to 31.