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**CIPS Message Definition Report**

**Part 1: Participant Management**

**V1.0.0**

**January 2021**

Important Note: This Article is made out in both English and Chinese versions. We hereby set Chinese version as standard and English version as a reference should any conflicts occurred. If you have any questions, please contact us at bzb@cips.com.cn.

**Revision Record**

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1. Introduction
	1. Terms and Definitions

The terms involved in this document are defined as follows:

|  |  |
| --- | --- |
| Term | Definition |
| BusinessRole  | A BusinessRole represents an entity (or a class of entities) of an actual business. |
| Participant  | A functional role played by a BusinessRole in a particular BusinessProcess or BusinessTransaction. |
| BusinessProcess  | Business activities undefined but undertaken within a BusinessArea whereby each BusinessProcess fulfils one type of business activities and whereby a BusinessProcess may include and extend other BusinessProcesses. |
| BusinessTransaction  | A particular solution that meets the communication requirements and the interaction requirements of a particular BusinessProcess and BusinessArea. |
| MessageDefinition  | Formal description of the structure of a message instance.  |

The CIPS terms involved in this document are defined as follows:

|  |  |
| --- | --- |
| **Term** | **Description** |
| Cross-border Interbank Payment System (CIPS) | CIPS provides fund clearing and settlement service for its Participants’ cross-border RMB payment transactions, financial market transactions, etc. |
| CIPS Direct Participant  | CIPS Direct Participant refers to a domestic or an overseas institution that has a CIPS code and handles cross-border RMB payment and settlement businesses directly through CIPS. The operating agency of CIPS will open a CIPS account for each Direct Participant bank, and will also open a CIPS account for each Direct Participant FMI as required by prudent management. |
| CIPS Indirect Participant  | CIPS Indirect Participant refers to a domestic or an overseas institution that has not opened a CIPS account but has a CIPS code and entrusts an appropriate CIPS Direct Participant to handle cross-border RMB payment and settlement businesses through CIPS. |
| Custodian Bank  | Custodian Bank refers to a domestic direct participant bank that meets the requirements and has signed a fund custody agreement with a direct participant having no HVPS clearing account to provide related services such as initial prefunding (reserved prefunding) and fund increase (supplemental fund transfer). |

* 1. Abbreviations and Acronyms

|  |  |
| --- | --- |
| Abbreviation/Acronyms | Definition |
| CIPS | Cross-border Interbank Payment System |

* 1. Document Scope and Objectives

This document is the first part of the Remittance Message Definition Report (MDR) and describes the BusinessTransactions and underlying message set. For the sake of completeness, the document may also describe the BusinessActivities that are not in the scope of the BusinessProcesses covered in this document.

This document describes the following:

- the BusinessProcesses scope

- the BusinessRoles involved in these BusinessProcesses

The main objectives of this document are as follows:

- to explain the BusinessProcesses and BusinessActivities these messages have addressed

- to give a high-level description of the BusinessProcesses and associated BusinessRoles

- to explain the BusinessProcesses and related Participants

- to present a list of MessageDefinitions

* 1. References

| **Document** | **Version** | **Date** | **Author** |
| --- | --- | --- | --- |
| Message Exchange Standard for CNAPS2 | V1.4.7 | 05-2017 | China National Clearing Center, the People’s Bank of China |
| CIPS (Phase II) Requirements Specification | V1.0.0 | 05-2017 | China National Clearing Center, the People’s Bank of China |
| CIPS Message Exchange Standard V2.1.0 | V2.1.0 | 11-01-2019 | Payment System Development Center, China National Clearing Center, the People’s Bank of China |
| Requirements Specification for Multi-debit/credit Transfer by Clearing Institution | V0.5.0 | 01-2019 | China National Clearing Center, the People’s Bank of China |

1. Scope and Functionality
	1. Background

This Message Definition Report covers a set of 12 messages developed by CIPS for participant management.

* 1. Scope

This message set covers the BusinessProcesses of participant management. The following 12 messages are used to describe the Business Processes:

1. ParticipantInformationChangeNotice (cips.901.001.01): After a CIPS business supervisor issues participant change information, CIPS sends this message to all Direct Participants.
2. BusinessAuthorityModificationNotice (cips.902.001.01): CIPS sends this message to all Direct Participants, containing the full authority data of the change Participants.
3. DigitalCertificateBindingNotice (cips.903.001.01): After one Participant replaces its original digital certificate with a new one, the Participant uses the new digital certificate to add its digital signature to the related message, and sends this message to CIPS, which will broadcast this message to all Participants.
4. SystemParametersChangeNotice (cips.904.001.01): After any parameters have changed, CIPS confirm the change and then sends this message to all Participants, and the change will become effective on a regularly or timely basis according to the specific parameters.
5. IndirectParticipant’sDirectParticipantChangeNotice (cips.906.001.01): After a CIPS business supervisor issues participant’s direct participant change information, CIPS sends this message to all Direct Participants.
6. RequestToDownloadDigitalCertificate (cips.914.001.01): An Initiating Direct Participant sends this message to CIPS for downloading the digital certificates of all or some Participants.
7. AutomaticVerification (cips.922.001.01): CIPS sends this message to inform all Participants that CIPS checks are being performed.
8. CommunicationLevelConfirmation (ccms.990.002.01): Participants and CIPS send this message to each other to give communication level confirmation.
9. CheckRequest (ccms.991.002.01): Inner-bank System sends this message to Front-end Processor when needed, which can check the operating status and loading condition of Front-end Processor.
10. CheckResponse (ccms.992.002.01): Upon receiving a CheckRequest message, Front-end Processor sends this message to Inner-bank System to reply with the operating status and loading condition of Front-end Processor.
11. CommonConfirmation (cips.900.001.01): Upon receiving a message from a Participant, CIPS notifies the Participant of the business processing result through this message or upon receiving a critical message from CIPS, a Participant sends this message to inform CIPS that the related message has been processed.
12. MessageAbandonNotice (cips.912.001.01): Upon receiving a message from a Participant, if CIPS can neither carry out any business processing nor reply with a business-level CommonConfirmation message, CIPS will automatically abandon the accepted message, and send this message to the sender of the accepted message.
	1. Groups of MessageDefinitions and Functionality

| **MessageDefinition** | **ISO 20022 Identifier** | **CIPS Identifier** |
| --- | --- | --- |
| ParticipantInformationChangeNotice | / | cips.901.001.01 |
| BusinessAuthorityModificationNotice | / | cips.902.001.01 |
| DigitalCertificateBindingNotice | / | cips.903.001.01 |
| SystemParametersChangeNotice | / | cips.904.001.01 |
| IndirectParticipant’sDirectParticipantChangeNotice | / | cips.906.001.01 |
| RequestToDownloadDigitalCertificate | / | cips.914.001.01 |
| AutomaticVerification | / | cips.922.001.01 |
| CommunicationLevelConfirmation | / | ccms.990.002.01 |
| CheckRequest | / | ccms.991.002.01 |
| CheckResponse | / | ccms.992.002.01 |
| CommonConfirmation | camt.025.001.03 | cips.900.001.01 |
| MessageAbandonNotice | / | cips.912.001.01 |

1. BusinessRoles and Participants

A BusinessRole represents an entity (or a class of entities) of the real world, physical or legal, including a person or corporation. Examples of BusinessRoles: “Financial Institution”, and so on.

A Participant is a functional role played by a BusinessRole in a particular BusinessProcess or BusinessTransaction. Examples of Participants: the “user” of a system, “debtor”, “investor”, and so on.

The relationship between BusinessRoles and Participants is many-to-many. A BusinessRole can act as different Participants at different moments or at the same time. For example, a BusinessRole can be the “user” of a system, a “debtor” and an “investor” at the same time. In addition, different BusinessRoles can be involved as the same Participant.

* 1. Participant Management Business

The BusinessRoles and Participants in participant management business are described below.

| **Participant and BusinessRole Definitions** |
| --- |
| **Participant** | **Definition** |
| Receiving Direct Participant | A direct participant that received the business |
| Initiating Direct Participant | A direct participant that initiated the business |
| CIPS | Cross-border Interbank Payment System |
| **BusinessRole** | **Definition** |
| CIPS Participant | A participant that directly interacts with CIPS |
| Clearing System | Cross-border Interbank Payment System |

|  |
| --- |
| **Participant and BusinessRole Matrix** |
| BusinessRoleParticipant | CIPS Participant | Clearing System |
| CIPS |  | √ |
| Receiving Direct Participant | √ |  |
| Initiating Direct Participant | √ |  |

1. BusinessProcess Description

This section describes the BusinessProcesses. Description of the BusinessProcesses and the information in the BusinessProcesses can help to identify relationships between the BusinessRoles.

* 1. Participant Management Process Description
		1. Participant Information Change Notification

The specific process of participant information change notification is shown in the figure below:



Direct Participants

① After CIPS issues participant change information, CIPS sends a ParticipantInformationChangeNotice message to inform all Direct Participants of the change information.

* + 1. Business Authority Modification Notification

The specific process of business authority modification notification is shown in the figure below:



All Participants

① CIPS sends a BusinessAuthorityModificationNotice message to inform all Direct Participants of the full authority data of the Change Participants.

* + 1. Digital Certificate Binding Notification

The specific process of digital certificate binding notification is shown in the figure below:



All Participants

Initiating Direct Participant

① After one Participant replaces its original digital certificate with a new one, the Participant uses the new digital certificate to add its digital signature to the related message and sends a DigitalCertificateBindingNotice message to CIPS.

② CIPS broadcasts this message to all Participants.

* + 1. System Parameters Change Notification

The specific process of system parameters change notification is shown in the figure below:



All Participants

① CIPS sets system parameters according to the management requirements, and when any parameters change, sends a SystemParametersChangeNotice message to all Participants. The parameters that have been set may become effective on a regularly or timely basis.

* + 1. Indirect Participant’s Direct Participant Change Notification

The specific process of indirect participant’s direct participant change notification is shown in the figure below:



All Direct Participants

① After a CIPS business supervisor issues participant’s direct participant change information, CIPS sends an IndirectParticipant’sDirectParticipantChangeNotice message to all Direct Participants.

* + 1. Request to Download Digital Certificate

The specific process of request to download digital certificate is shown in the figure below:



Initiating Direct Participant

①Initiating Direct Participant sends a RequestToDownloadDigitalCertificate message to CIPS for downloading the digital certificates of all or some Participants.

② After confirming no error in the message from an Initiating Direct Participant, CIPS forwards a DigitalCertificateBindingNotice message to Initiating Direct Participant if the message passes the checks,.

* + 1. Automatic Verification

The specific process of automatic verification is shown in the figure below:



All Participants

① CIPS sends an AutomaticVerification message to inform all Participants that CIPS checks are being performed.

② After processing, the Participants reply to CIPS with a CommonConfirmation message.

* + 1. Communication Level Confirmation

No description of the BusinessProcess

* + 1. Check Request and Response

The specific process of check request and response is shown in the figure below:



Inner-bank System

Front-end Processor

① Inner-bank System sends a CheckRequest message to Front-end Processor for checking the operating status and loading condition of Front-end Processor.

② Front-end Processor sends a CheckResponse message to Inner-bank System and sends subsequent messages to one available server with a smaller load factor.

1. Description of BusinessActivities

This section presents the different BusinessActivities within each BusinessProcess. The BusinessActivities of a process are described with an activity diagram. The following is an introduction to the activity diagram.

describes the general lifecycle of a business process;

Start Point ⚫ shows where the lifecycle of the business process commences, and End Point  shows where the lifecycle of the business process may end;

Lozenge (or Diamond) indicates that a choice between several actions can be made;

There are activity streamlines between the Participants;

Information in the BusinessActivities is transmitted from one Participant to another.

* 1. Participant Management
		1. Participant Information Change Notification

CIPS sends a ParticipantInformationChangeNotice message to all Direct Participants. Upon receiving the message, the Participants reply to CIPS with a CommonConfirmation message.

Send a ParticipantInformationChangeNotice message to all direct participants

Receive the CommonConfirmation message

Send a CommonConfirmation message

Receive the ParticipantInformationChangeNotice message

Receiving Direct Participants

* + 1. BusinessAuthorityModificationNotice

CIPS sends a BusinessAuthorityModificationNotice message to all Direct Participants. Upon receiving the message, the Participants reply to CIPS with a CommonConfirmation message. CIPS manages the business authority of the Direct Participants in a unified way, and controls the Direct Participants’ sending and receiving business messages according to the business authority that has been set. Unauthorised business message transmission is prohibited. The setting of the business authority supports parametric management.

Send a BusinessAuthority ModificationNotice message to all direct participants

Receive the CommonConfirmation message

Send a CommonConfirmation message

Receive the BusinessAuthority ModificationNotice message

* + 1. Digital Certificate Binding Notification

An Initiating Participant sends a DigitalCertificateBindingNotice message. CIPS performs business checks, replies to the Initiating Participant with a CommonConfirmation message and forwards this message to all Participants. Upon receiving this message, the Participants reply to CIPS with a CommonConfirmation message.

Send a CommonConfirmation message

Send a CommonConfirmation message

Receive the CommonConfirmation message

Receive the DigitalCertificateBinding Notice message

Yes

Send a MessageAbandonNotice message

No

Pass message format check and double accounting check

Message review

Send a DigitalCertificateBindingNotice message to CIPS

Receive the MessageAbandon Notice message

Forward the DigitalCertificateBinding Notice message to all Participants

Receive the CommonConfirmation message

No

Pass business legality check and digital signature validity check

Yes

Receive the DigitalCertificateBindingNotice message

All Direct Participants

Initiating Direct Participants

* + 1. System Parameters Change Notification

CIPS sends a SystemParametersChangeNotice message to all Participants. Upon receiving this message, the Participants reply to CIPS with a CommonConfirmation message.

Receive the SystemParametersChange Notice message

Send a SystemParametersChange Notice message to all Participants

Receiving Direct Participants

Receive the CommonConfirmation message

Send a CommonConfirmation message

Receiving Direct Participants

* + 1. Indirect Participant’s Direct Participant Change Notification

CIPS sends an IndirectParticipant’sDirectParticipantChangeNotice message to all Direct Participants. Upon receiving this message, the Participants reply to CIPS with a CommonConfirmation message.

Receive the IndirectParticipant’sDirect ParticipantChangeNotice message

Receive the CommonConfirmation message

Send a IndirectParticipant’sDirect ParticipantChangeNotice message to all Participants

Send a CommonConfirmation message

* + 1. Request to Download Digital Certificate

Upon receiving a RequestToDownloadDigitalCertificate message from an Initiating Participant, CIPS confirms no error through checks and forwards a DigitalCertificateBindingNotice message to the Initiating Participant.

Receive the MessageAbandonNotice message

Receive the CommonConfirmation message

Receive the DigitalCertificateBinding Notice message

Send a DigitalCertificateBinding Notice message

Send a CommonConfirmation message

Pass business legality check and digital signature validity check

No

No

Message review

Send a RequestToDownload DigitalCertificate message to CIPS

Send a MessageAbandonNotice message

Yes

Yes

Pass message format check and double accounting check

Receive the RequestToDownload DigitalCertificate message

Initiating Direct Participants

* + 1. Automatic Verification

CIPS sends an AutomaticVerification message to inform all Participants that CIPS checks are being performed. After successful processing, the Participants reply to CIPS with a CommonConfirmation message.

Send a CommonConfirmation message

Receive the AutomaticVerification message

Send an AutomaticVerification message to all Participants

Receive the CommonConfirmation message

Receiving Participants

* + 1. Communication Level Confirmation

No description of the BusinessActivity

* + 1. Check Request and Response

Inner-bank System can send a CheckRequest message to Front-end Processor when needed, which can check the operating status and loading condition of Front-end Processor. Upon receiving the CheckRequest message, Front-end Processor will send a CheckResponse message to Inner-bank System. Upon receiving the CheckResponse message, Inner-bank System can send subsequent messages to one available server with a smaller load factor.

Inner-bank System

Front-end Processor

Receive the CheckRequest message

Receive the CheckResponse message

Send a CheckRequest message to Front-End Processor

Send a CheckResponse message

1. BusinessProcesses

This section describes the message flows based on the following activity diagrams so as to show the specific communication processes in the BusinessProcesses or BusinessTransactions.

* 1. Participant Management
		1. Participant Information Change Notification

CIPS sends a ParticipantInformationChangeNotice message to all Direct Participants. Upon receiving the message, the Participants reply to CIPS with a CommonConfirmation message.



Receiving Direct Participants:

* + 1. Business Authority Modification Notification

CIPS sends a BusinessAuthorityModificationNotice message to all Direct Participants. Upon receiving the message, the Participants reply to CIPS with a CommonConfirmation message.



Receiving Direct Participants:

* + 1. Digital Certificate Binding Notification
			1. Normal Process of Digital Certificate Binding Notification

An Initiating Participant sends a DigitalCertificateBindingNotice message. After the message passes the business checks, CIPS replies to the Initiating Participant with a CommonConfirmation message and forwards this message to all Participants. Upon receiving this message, the Participants reply to CIPS with a CommonConfirmation message.



All Direct Participants:

Initiating Direct Participants:

* + - 1. Special Process of Digital Certificate Binding Notification

A Participant sends a DigitalCertificateBindingNotice message. If the message fails to pass the business checks, CIPS replies to the Participant with a CommonConfirmation message to inform the Participant of the reasons for rejecting the message above.



Initiating Direct Participant:

CIPS abandons a DigitalCertificateBindingNotice message sent by a Participant due to nonexistence of DirectParticipantIdentification, invalid DirectParticipantIdentification, message format error or double accounting.



Initiating Direct Participant:

* + 1. System Parameters Change Notification

CIPS sends a SystemParametersChangeNotice message to all Participants. Upon receiving this message, the Participants reply to CIPS with a CommonConfirmation message.



Receiving Direct Participants:

* + 1. Indirect Participant’s Direct Participant Change Notification

CIPS sends an IndirectParticipant’sDirectParticipantChangeNotice message to all Direct Participants. Upon receiving this message, the Participants reply to CIPS with a CommonConfirmation message.



Receiving Direct Participants:

* + 1. Request to Download Digital Certificate
			1. Normal Process of Request to Download Digital Certificate

Upon receiving a RequestToDownloadDigitalCertificate message from an Initiating Participant, CIPS confirms no error through checks and forwards a DigitalCertificateBindingNotice message to the Initiating Participant.



Initiating Direct Participant:

* + - 1. Special Process of Request to Download Digital Certificate

An Initiating Participant sends a RequestToDownloadDigitalCertificate message. If the message fails to pass the business checks, CIPS replies to the Initiating Participant with a CommonConfirmation message to inform the Participant of the reasons for rejecting the message above.



Initiating Direct Participant:

* + 1. Automatic Verification

CIPS sends an AutomaticVerification message to inform all Participants that CIPS checks are being performed. After successful processing, the Participants reply to CIPS with a CommonConfirmation message.



Receiving Participants:

* + 1. Communication Level Confirmation

In order to ensure reliable message transmission of the system, both Participating Institutions and CIPS need to confirm the communication level of the business message from the other party. A business message for which the other party’s CommunicationLevelConfirmation message has not yet been received should be regarded as a message that has not been successfully sent.

* + 1. Check Request and Response

Inner-bank System can send a CheckRequest message to Front-end Processor when needed, which can check the operating status and loading condition of Front-end Processor. Upon receiving the CheckRequest message, Front-end Processor will send a CheckResponse message to Inner-bank System. Upon receiving the CheckResponse message, Inner-bank System can send subsequent messages to one available server with a smaller load factor.



2: CheckResponse message

1: CheckRequest message

Front-end Processor

Inner-bank System

1. Example
	1. ParticipantInformationChangeNotice <cips.901.001.01>

**Message Instance:**

<?xml version="1.0" encoding="UTF-8"?>

<Document xmlns="urn:cips:std:cips:2014:tech:xsd:cips.901.001.01" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">

 <AdmstnPrtryMsg>

 <MsgId>

 <Ref>2014112100001111</Ref>

 </MsgId>

 <PrtryData>

 <Tp>cips.901.001.01</Tp>

 <Data>

 <CreDtTm>2014-12-17T09:30:47</CreDtTm>

 <ChngNb>00000022</ChngNb>

 <ChngInf>

 <ChngTp>MODI</ChngTp>

 <MmbId>HASECNSHBEJ</MmbId>

 <MmbNmChn>Hang Seng Bank,Beijing Branch</MmbNmChn>

 <MmbNmEng>Hang Seng Bank</MmbNmEng>

 <CntyAndRgCd>142</CntyAndRgCd>

 <BankCatg>DRPT</BankCatg>

 <Cstd>HBSECNSHBEJ</Cstd>

 <DmtFlag>DMPT</DmtFlag>

 <Lei>LEI</Lei>

 <FctvDt>2014-12-13</FctvDt>

 <Tel>86-10-88888888</Tel>

 <AdrLine>Address</AdrLine>

 <ZipCode>100097</ZipCode>

 <Mail>xxxx@xxxx.xx</Mail>

 <Contact>Contact Person</Contact>

 </ChngInf>

 </Data>

 </PrtryData>

 </AdmstnPrtryMsg>

</Document>