



Record of the first ISO20022 Data Working Group
31st October 2017

Attendees:

BACS	Lloyds	Transact
Barclays	Northern Trust	Wolfsberg Group
CHAPSCO	NPSO	JP Morgan
Citi	ONS	Swift
CLS	PSR	FPS
Ebury	RBS	Santander
	Bank of England	

Context for and objectives of the Data Working Group

- The RTGS Renewal Programme has established three working groups to provide input and advice to the Bank of England (the Bank) as it designs and transitions to the new RTGS service.
- The ISO 20022 Data Working Group has been established to provide ideas regarding enhancements to current payments data in alignment with the new ISO20022 message.
- The second working group will focus on interoperability. It will be tasked with realising the enhancements identified by the Data Working Group for the ISO 20022 schema in line with interoperating and harmonisation objectives.
- A transition working group has also been established to input to the Bank's strategy for phasing delivery of the new RTGS service – including migration to ISO20022.
- The Bank is currently engaged in a number of international Working Groups that seek to ensure harmonisation, such as the SWIFT HVPS+ and CPMI groups, and will draw from the outputs of these groups, such as the HVPS+ schema.
- It was acknowledged that the Data Working Group should focus on creative input on improvements to the data contained in a payments message and of the schema in general. Where necessary it will make recommendations on the structure of the proposed data enhancements.
- It was affirmed that this group is an advisory body. The Bank will ensure that the decision-making processes are as open and as transparent as possible. Similarly, any information that the Bank distributes to group members should be circulated as widely as possible to generate ideas from the wider community.
- Forthcoming meetings will be focused on a particular aspect of the existing messages where enhanced data is sought, with the forthcoming meeting focusing on data enhancements relating to the identity of parties to the message.
- The Bank emphasised the importance of active participant input to the group's discussions. To this end, it was agreed that attendees prepare items for discussion in future meetings (see actions at the end of this document).



ISO 2022 context and vision

- The group recognised that although SWIFT MT messages still adequately fulfilled their core purpose of routing payments, there is now a rare opportunity to update the messaging standard and achieve a number of benefits associated with adopting ISO 2022. Reflecting feedback from market participants, the Bank is ambitious about what the adoption of ISO 2022 can achieve, and wants to work with the industry to ensure the right expertise is leveraged to realise this opportunity. This is especially the case since there was agreement that a tipping point has now been reached in terms of global adoption of the new standard.
- The objectives for implementing ISO 2022 for the UK HVPS were raised. These are: better data for an information driven economy, assisting macroeconomic surveillance and AML/compliance checks; enhanced interoperability, ensuring a more resilient payment system and greater efficiency in payments processing; facilitating competition by reducing technical barriers; and an enhanced end-user experience. These will be realised in conjunction with industry input via a series of working groups and consultation.
- The issues of domestic interoperability and international harmonisation were raised. It was noted that the UK retail schemes are committed to moving to ISO 2022 in their future infrastructure. It was also noted that there is presently a Payments Market Practice Group (PMP) study in collaboration with SWIFT on how to migrate cross border correspondent banking onto ISO 2022.
- It was suggested that the Bank should be engaged with the work that the Open Banking Implementation Entity is undertaking on APIs and ISO 2022. However, it was recognised that the Bank need not get drawn into issues of syntax underpinning ISO 2022 at this stage. Given the Bank will be utilising a SWIFT network it is currently restricted in its choice of syntax.
- The need to plan for migration was discussed. The Bank is developing the overall timeline for introducing RTGS, including migration to ISO 2022. This will be informed by industry input via the Transition Working Group.

Terms of Reference

- Attendees agreed the Terms of Reference, subject to two changes: 1) the term 'schema' should be used rather than 'recommended set of data fields' because there will need to be discussions about the structure of the fields as well as the types of fields used; and 2) there should be an explicit mention of AML/ compliance objectives in the Terms of Reference. These have been updated accordingly.

Discussion: Is the focus on data enhancements related to who/what correct?

- The group discussed the idea that the majority of data enhancements required to meet the objectives for ISO implementation could be captured under the headings of: 'who is transacting?' and 'why'? The group decided to reword these heading to 'identity' and 'purpose', acknowledging that these two categories of data can be complementary (i.e. detailed identity data can give strong indications on purpose).
- Attendees suggested there should also be a discussion on metadata, as some of the 'identity' data held by banks need not necessarily go in the message itself; fraud detection



tools could be built around accessing the data from other sources linked to but separate from the payment message itself; and track and trace tools could all fall into this category.

- It was suggested that the group consider structured/unstructured remittance information given the significant of these fields to end-users. In some international implementations of ISO 20022 these fields are extremely important. It was agreed that there is a need for clearly structured remittance information as presently much of the data is difficult to use/compare.

Data for Macroeconomic Analysis

- The ONS presented on how better payments data could enable improved macroeconomic analysis.
- Reasons include: the opportunity for near real-time statistics; a reduced cost and burden to business for data collection; the existence of better counterparty information; better regional data; and a greater awareness of the distribution of risk of certain assets.
- It was acknowledged that some users have a poor track-record in completing reference data that would be useful for macroeconomic analysis. This is not necessarily the case with regulatory data where there is a requirement to keep data up to date.

Actions:

- Members should contact the Bank to organise when they will present, and on what topic
- Members should also consider topics for discussion in future meetings
- The Bank will publish a record of the meeting
- The Bank will schedule a meeting with the Open Banking Implementation Entity in due course.



Appendix A: Reading Pack

Welcome from Andrew Hauser, Executive Director BoE

The move to ISO 2022 is a rare opportunity to update the way in which financial institutions communicate, and forms an important strand of the RTGS Renewal programme.

Reflecting initial feedback from market participants, the Bank is ambitious about what the adoption of ISO 2022 can achieve, and wants to work with industry to ensure that the right expertise is leveraged to realise this opportunity.

Widespread adoption of ISO 2022 has the potential to bring significant benefits for individual firms and for the financial system as a whole, by both enriching the data carried in payments messages, and improving interoperability between payments infrastructures.

Good quality financial data is integral to the effective operation of the economic and financial system, and will allow improved compliance and greater efficiencies for banks and the authorities. ISO 2022 will enable an improved experience to the end-users of payments data, facilitating greater levels of competition and innovation in the financial sector.

Widespread adoption of ISO 2022 should also enable wider interoperability between payments systems, improving resilience (by allowing multiple routing of messages) and providing a more level playing field for competition and innovation. In that context, the Bank welcomes the recent recommendations from both the Payments Systems Regulator and the Payments Strategy Forum that the future UK retail payments architecture should move to ISO 2022, alongside RTGS. The Bank will be working closely with the UK retail schemes to take this work forward. The Bank is also in close contact with major overseas central banks and other authorities to explore the scope for improving cross-border interoperability, an important priority for the UK's role as an international financial centre. ISO 2022 is being increasingly adopted by High Value Payment Systems across the globe. As you will have seen, most recently the US Federal Reserve announced their migration strategy and implementation timeline at SWIFT's Sibos conference in Toronto.

Although the potential benefits of ISO 2022 adoption are significant, we recognise the migration process itself will be challenging, and require close co-ordination between the various UK players. That is why we are establishing a dedicated Transition Working Group, and more broadly are seeking your involvement in this process from the outset so you can influence policies that will shape our payments networks for many years to come.

I want to thank members of the forthcoming Working Groups in advance for their insights and efforts towards fully realising this important goal.

Andrew Hauser

Executive Director of Banking, Payments and Financial Resilience

Bank of England



Objectives for Migrating to ISO 2022 Messaging Standards for RTGS

ISO 2022 is an important element of the RTGS Renewal Programme which is currently being undertaken.

RTGS Renewal is a multi-year programme being launched by the Bank of England to deliver a new RTGS infrastructure and supporting processes designed to widen access, enable greater interoperability, strengthen resilience against new threats and introduce new user functionality.

The Bank will adopt the following objectives in designing the new messaging standard:

- Support broader UK public policy goals by enabling the transportation of richer payments data, including:
 - Improved macroeconomic data
 - Better AML/KYC checks
- Implement interoperable messaging standards, in order to:
 - Enhance overall system resilience by removing a barrier to the redirection of payment traffic between payment systems
 - Create the potential for bank efficiency gains in the payments industry
- Support the development of innovative new technologies and systems by improving the quality and formatting of data carried with payment messages.
- Facilitate the delivery of a better end-user experience by providing the capacity at the centre to support more efficient end-to-end payments business processes.

It is recognised at this stage that there may be trade-offs involved with pursuing some of these objectives. Furthermore, the Bank recognises that new messaging standards are not a free good; changes to the centre mean changes to the periphery. It is necessary that the Bank and industry gain a good understanding of the cost-benefit implications of the requirements set out in this document.

Implementing the new standard is a complex issue with multiple dependencies. The Bank will therefore work across industry domestically and internationally in order to ensure the development of interoperable and harmonised standards. Considerable work has already been completed by groups such as the international SWIFT HVPS+ and ISO 2022 RTP (Real-Time Payments) groups. The Bank is committed to working with existing standards-setting bodies and initiatives both now and in the future. Beyond this, the Bank is keenly aware of the need to co-ordinate the RTGS Renewal Programme with ongoing industry change initiatives.

To support this, the design process must be an open and collaborative one. The Bank is determined to ensure that the full range of relevant payment system users is represented on this working group. At the same time, the Bank will depend on the payment schemes and direct participants to share outputs from this group and other information with, and seek feedback from, their members and clients



ISO 2022: Data Working Group Terms of Reference

Overview

As input to the design of the new RTGS service, the Bank of England will organise and chair the Data and Interoperability Working Groups to provide industry advice on key aspects of the new messaging standard. While these groups will not be decision making, in advising the Bank, the groups will contribute to the policy shaping decisions that must be taken in designing and implementing the new messaging standard.

Responsibilities

The Bank has conducted research into our needs as a consumer of data. We are ambitious in our intentions regarding the content of the new payment messages and will seek input from a variety of external stakeholders to feed into this. The Data Working Group is expected to provide ideas regarding enhancements to current payments data. We also anticipate participants providing an early insight into possible challenges surrounding collecting the new data.

The Bank seeks to achieve consensus on data enhancements in the new messages. Where this is not possible the Bank will endeavour to understand the different perspectives and challenges through these Working Groups. Informed by views from the Working Groups, the Bank plans to run a consultation in spring 2018 to gather views from the wider industry. The Bank's final decision will be based on feedback from both the Working Groups and the consultation.

Members are expected to represent the views of their constituency during meetings.

Objectives

The Data Working Group will:

- Build on the proposed data requirements from the Bank's internal data consultation¹;
- Guide the Bank on which additional information could be collected by payments messages;
- Identify use cases for data enhancements; and
- Supply industry expertise to ensure that the data collection expectations are feasible in practice and identify further areas of exploration.

Outputs

- A recommended initial set of data fields and requirements to include in the new messages, with more detail on this to be provided at the first meeting.
- Views on which data should be mandatory/non-mandatory.

¹ Prior to beginning the External Working Groups the project team has consulted with a range of stakeholders across the Bank to identify our needs from the data enhancements.



How will it work?

Participants in the Working Group will be asked to consider what information they would like to incorporate into the new messages and to send this to the Bank in advance of the meetings. The Bank will then use this to create documentation to be distributed in advance of the meetings in order to facilitate discussion. Participants may be asked to present ideas to the group for discussion and comment.

Dates

Title	Date	Time
Data Working Group 1	31 October	10.30am – 13.30pm
Data Working Group 2	24 November	13.00pm – 16.00pm
Data Working Group 3	8 December	11.00pm – 14.00pm

Members

Each organisation should send one representative only to the Working Group.

- A wide pool of participants from banks, payment schemes and corporates will consider macroeconomic and other ambitious data enhancements. This group will also consider the additional inputs to the message that participants and end-users of CHAPS may wish to utilise.
- We will engage public bodies bilaterally in advance of the working groups in order to explore their requirements for additional data in greater detail. This will be used to inform discussion. We may then invite certain representatives to meetings in order to discuss specific topics.

An invitation was sent to the payments industry, via the RTGS renewal programme's industry round up in September 2017, to register interest in attending the working group. Following this, the below attendees have been invited to attend the working group:

Stakeholder	Contact
CHAPS participants	Mariano Diaz (Barclays) Robert Preece (BNY Mellon) Howard Middleton (CLS) Patricia McLoughlin (Deutsche Bank) Alex Loyden (JP Morgan) Tim Decker (Lloyds) Tim Lewis (RBS) Paul Waller (Santander)
Non-CHAPS banks	Julian Sawyer (Starling Bank)
Non-bank PSPs	Toby Young (Ebury) Andrew Kaye (Transpact)
Retail schemes	Neil Cannon (BACS) David Gradwell or Andy Milner (FPS)
ONS	Phillip Davies (ONS)
UK Finance	Lindsay Curtis



PSR	Nick Davey or Dora Guzeleva or David McPhee
NPSO	James Whittle
SWIFT	Isabelle Bouille or Astrid Thorsen
Government	Brendan Peilow (Cabinet Office)
The Bank of England	Luke Charters-Reid [minutes], Rebecca Hall, Neil Pearston, John Jackson, Gwyn Jones, Katherine Pakenham

Conflicts of interest

Members are responsible for identifying and declaring any conflicts of interest.

Changes to the membership

Changes to membership will be made by the Secretariat as necessary to support the Group's objectives. Membership is conferred on an individual, so it does not necessarily follow that departing members should be replaced by someone from the same institution. Members must inform the Bank if they are to send an alternate in the event they are unable to attend a meeting. The alternate must be in a position to review the material distributed in advance of the meeting and have the technical expertise to contribute.

Chair & Secretariat

The Group will be chaired by the Policy Lead for the Bank's RTGS Renewal programme. The Bank will also provide the Secretariat, take the minutes and record any actions.

Decision making

The body is not a decision-making body for the RTGS Renewal Programme. Outputs from the Working Groups will be used to inform the Bank's decisions. The Bank will be transparent in its decision making process and will seek to share the reasons for its decisions as far as is practicable.

Frequency of meetings

This Group will run until January 2018 and will meet monthly. The Group may vary this timetable or hold extraordinary meetings on agreement with the Secretariat.

Papers and Minutes

The Bank will issue minutes no later than ten working days following the meeting.

Papers will be circulated at least four working days before each meeting.

Changes to terms of reference



These terms of reference will be agreed at the first meeting of the group on 31st October 2017. It is envisaged that they be updated throughout the project as necessary to support the Group's objectives and the successful delivery of RTGS Renewal. Any updates from members should be proposed via the Secretariat.

Categories where data may be improved

This list is not intended in any way to be exhaustive, but it indicates areas which the data working group may wish to direct its efforts.

- More detailed payer and payee information, as well as ultimate beneficiary and ultimate originator information
- Data that may assist with remittance payments
- More data on what the purpose of a payment is for
- Transaction ID to identify linked payments
- Space for data that would enable API calls and promote competition and innovation
- More reference data, for instance, for the reconciliation of data sets
- Data structured to ensure more efficient straight-through processing of payments
- Data to ensure the better identification of parties and entities in the transaction
- Data to assist financial institutions with their regulatory reporting requirements
- Other areas in which the experience for end-users may be improved, such as the ability to track the progress of a payment
- Data to assist with compliance, involving: sanctions monitoring, anti-money laundering (AML), KYC, KYCC, counter-terrorism financing (CTF), anti-corruption anti-bribery, measures against modern day slavery (MDS), and the protection of vulnerable customers. A separate sub-working group is to be held to cover this range of issues.



Data Carried In Current Messaging

This section outlines what data is currently carried in existing SWIFT MT messages. **All data provided is indicative only, and is not from any real raw payments data.**

More detailed information can be found in the CHAPS Technical Reference Manual.²

Information Carried in MT103s

MT103s are customer to financial institution payments.

Below is a hypothetical MT103 message from the CHAPS technical manual issue 1.1 in the CHAPS specification of MT103 messages:

- SWIFT Sender: MIDLGB22XXX
- SWIFT Receiver: BARCGB22XXX
- :20:394882
- :23B:CRED
- :32A:990104GBP37509,53
- :33B:GBP37509,53
- :50K:ABC PURCHASING FLEET ST
- :52A:MIDLGB22
- :57A:BARCGB2105N
- :59:/63720381 ACME WHOLESALERS LTD LONDON
- :70:/RFB/INVOICE 559661
- :71A:OUR

This represents a hypothetical payment from HSBC to Barclays Bank to credit the account of ACME Wholesalers Ltd by the sum of £37509.53 at their Cheapside Branch, in settlement of their invoice number 559661.

The field codes in the above message each have a corresponding field name. Below is a table outlining this, as well as offering an example of what might be located in some of the fields.

Field code	Field name	Indicative Field example
20	Transaction Reference Number	
13C	Time indication	11:14:43
23B	Bank Operation Code	CRED
23E	Instruction Code	
26T	Transaction Type Code	
32A	Date, Currency Code, Amount	08/02/2017 / GBP / 1000
33B	Currency/Instructed Amount	EUR / 1000
36	Exchange Rate	0.85
50A	Ordering Customer	[Name, address etc.]
50F		""

² Latest version (31/07/17) of the Technical Reference Manual can be found at: http://www.chapsco.co.uk/sites/default/files/documents/chaps_reference_manual_version_31_july_2017.pdf



50K		""
52A	Ordering Institution	BKENGB2LXXX
52D		
56A	Intermediary	CITIGB2LXXX
56D		
57A	Account With Institution	SC / 10-00-00 BKENGB2LXXX
57D		
59	Beneficiary Customer	[Name, address etc.]
59A		""
70	Remittance Information	INV12345 , HOME RENT, Import
71A	Details of Charges	OUR
71F	Sender's Charges	GBP 10,00
71G	Receiver's Charges	GBP 0,00
72	Sender to Receiver Information	/ACC2347104701 / CITIGB2LXXX
77B	Regulatory Reporting	/CODECODE1234

As is evident from the above table, some fields are structured in nature. For instance, the 71A field (details of charges) must be completed with one of: OUR/ SHA/BEN. Other fields are mostly unstructured in nature, which involve a free text format, such as the remittance information field.

In CHAPS messages themselves, there are other fields available than those listed above, and are related to the processing of the payment, rather than the payment in itself. These involve the following fields: STP flag, message reference, message priority (urgent/non-urgent), and message input number in RTGS.

Information Carried in MT202

MT202s are financial institution to financial institution payments.

Below is a hypothetical MT202 message from the CHAPS technical manual issue 1.1 in the CHAPS specification of MT202 messages:

- SWIFT Sender: LOYDGB2L
- SWIFT Receiver: NWBKGB2L
- :20:990105/CB/157321
- :21:CHAS332451SBCO33
- :32A:990105GBP10000000,
- :52A:CHASUS33
- :58A:SBCOUS33



This represents Chase Manhattan instructing their UK correspondent, Lloyds Bank, to pay funds to Swiss Bank Corporation's account with NatWest Bank in settlement of an FX deal with common deal reference of CHAS332451SBCO33. The example shows the payment which Lloyds send to CHAPS.

Below shows the fields involved in an MT202 payment:

Field code	Field name	Indicative Field example
20	Transaction Reference Number	
21	Related reference	Inv.13213 / ref 131299A
32A	Date, Currency Code, Amount	08/02/2017 / GBP / 1000
52A	Ordering Institution	BKENGGB2LXXX
58A	Beneficiary Institution	NWBKGB2L567

Information Carried in MT202COV

Following on from the 2007 publication of payment transparency standards by the Wolfsberg Group³, there was a change to the MT202 message. This is known as the 'MT202COV' message that was introduced as part of an update to SWIFT standards in 2009. This aimed to improve transparency in correspondent banking payments with the goal of ensuring better compliance with global AML regulation. Below shows the additional fields present in MT202COVs as opposed to MT202s:

CHAPS field name	Indicative Field example
Instructed_Amount_COV	1234
Instructed_Currency_COV	GBP
OrderingCustomer_COV	/123456789B Sample Company Ltd. 1 Main Street, London, EC2R ABC
BeneficiaryCustomer_COV	/234567C Test Organisation. 1 First Street, Hong Kong, ABCDEF
RemittanceInformation_COV	1234567- CORRESPONDENT BANK HSBC
RelatedReference	MIDLGB2
OrderingInstitution_COV	999999999
Intermediary_COV	CITIGB2LXXX
AccountWithInstitution_COV	SC / BICAB2AXXX
BeneficiaryInstitution	BICAB3AXXX
SenderToReceiverInfo_COV	ABCDHKLXXX
	/refabc

³ Payment transparency standards were updated in 2017. This can be found at: <http://www.wolfsberg-principles.com/pdf/home/Wolfsberg-Payment-Transparency-Standards-October-2017.pdf>