



Record of the first ISO 20022 Interoperability Working Group

22 November 2017

NPSO	Barclays	BNY Mellon
J.P.Morgan	WorldPay	FPS
RBS	CLS	PUK
SWIFT	FPS	Bank of England
Bacs	Lloyds	

Context for the Interoperability Working Group

- In the [Blueprint for a new RTGS system for the United Kingdom](#), it was acknowledged that a key objective of the program is to move to ISO 20022. This migration will be a once in a generation opportunity to improve interoperability in the UK payments sector. Achieving true interoperability across systems will require changes beyond just the messaging standard, but considered design and implementation of ISO 20022 can remove a significant barrier to interoperability.
- 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 Interoperability Working Group will primarily focus on ensuring that the core of the credit message is harmonised for all UK payment systems and international high value payment schemes, and that there is a framework for introducing and developing enhancements without creating subsequent barriers to interoperating. The core credit message will be the basis for each scheme's implementation of ISO 20022, and through harmonising it we will ensure efficient, interoperable messaging for the UK payments landscape.
- This group will take inputs from the data working group, which will seek to identify enhancements to the current message, including richer data around the identities involved in and purposes for payments.
- The Bank has also established a transition working group to seek input from industry into the Bank's strategy for phasing delivery of the new RTGS system – including migration to ISO 20022. This group will help identify both the like-for-like and end-state messages for the transition working group to plot the migration path.
- The Bank plans to publish a consultation in spring 2018 on the draft schema, including the harmonised core credit message for the UK payments network.

Objectives of the Interoperability Working Group

- The group discussed efforts to align the entirety of the UK payment message landscape (both domestically and internationally), but recognised the limits of the Working Group scope within the Renewal programme. Key reasons for this are tight timelines and significant change happening in the retail systems.
- Completely identical messages across different schemes may be infeasible. There are idiosyncratic needs in the different rails of the schemes e.g. which FPS cycle a payment cleared in, which need not be



present in all messages. Where these differences persist it will be vital to describe such differences consistently in the documentation that will accompany each scheme's schema.

- The scope of the implementation of interoperable messages is restricted to direct participants. Over time, the group discussed the implementation and subsequent benefits of this message being adopted by indirect participants. In aspiring for end-to-end interoperability each member of the Working Group, and wider payments ecosystem, will have a role and responsibility. The SWIFT work on ISO 20022 implementation for cross-border correspondent transactions on the SWIFT network will be important here.
- The final implementation of ISO 20022 will go beyond like-for-like.
- The group should consider what 'good interoperability' looks like by setting principles and criteria against which the outputs can be assessed. **Action: Bank to draft principles for the next meeting (14/12/17).**
- This group should also consider a framework for change management processes in order to insure interoperability is future proofed. Change needs to be co-ordinated between schemes and also internationally. Decisions need to be agreed on which version of ISO 20022 to use and where the standards repository should reside.

Issues around standardisation: topics for discussion

- Various aspects of messaging need to be standardised, not just message formats and what is mandatory across schemes. This is to help remove barriers rather than aiming for perfect alignment.
- The group discussed a list of topics for consideration in future meetings, and wider issues that impact interoperability. For instance, the group will need to consider:
 - Which message flows (such as pacs.004 & pacs.002) across schemes;
 - non-Latin characters;
 - Business Application Header;
 - aligning reporting; and
 - codes for return messages.
- The group should have a strong view about the way forward on this wider list of items. **Action:** the group should prioritise this list of issues for consideration and bring their thoughts to the next meeting. The MoSCoW approach could be used (Must Have, Should Have, Could Have, Won't Have), this classification could be agreed upon at the next meeting. The Musts should be discussed as a whole group, whereas the others could be covered by breakout groups.
- Initially, focus will be on pacs.008 and pacs.009 messages, although there will be discussion of the other *pacs* and *pain* messages where appropriate.

Other key stakeholders

- There will need to be ongoing engagement with the Open Banking Implementation Entity to review what they have specified, though it was assumed that payment APIs for Open Banking will necessarily have to align with the central market infrastructure.
- An ongoing consideration must be global harmonisation to ensure that the UK remains a hub for payments internationally.



- The importance of the HVPS+ schema as a basis defining our core credit message was reiterated. This can be freely accessed on MyStandards. It is the internationally agreed template for implementing ISO 20022 and forms the basis of the Fed, ECB and Bank of England messaging standard.
- The Bank informed the attendees of ongoing coordination on ISO 20022 with key jurisdictions (US, Canada, EU and Japan) to maximise cross-border benefits to ISO 20022 where the CPMI group of operators will be relevant. This will help shape the work of the Interoperability Group.

Terms of Reference

- Subject to the below amendments, the Terms of Reference were agreed. Amendments noted:
 - The vision of the group to be expanded to include wider issues of standardisation.
 - Expand list of the key questions that need to be answered.
 - Reflect that certain topics may be considered in greater detail by smaller groups taken from within the main Working Group.
- The group noted that the Terms of Reference should be kept under regular review and updated if necessary to reflect new or changing priority areas for discussion.
- **Action: Bank to update ToRs.**

Draft of the core message

- A draft of the UK Core Customer Credit Payment had been distributed as a starting point for discussion. This covers the mandatory fields required for settlement in CHAPS, Bacs and FPS.
- Separate tables could be assembled to present the mappings and overlays of elements across current messages (e.g. MT103).
- It was agreed that the group could use different approaches to conceive this message – bottom up: review the full HVPS+ schema to identify any and all possible fields for use, and top down: work from existing requirements and identify message fields within HVPS+ schema.
- Exploring interoperability use cases would help frame requirements from a business perspective. Examples would need to include end to end payments and re-routing across schemes.
- Identifiers need to be covered thoroughly as it is not clear if they have to be unique across the financial world. An end-to-end transaction reference is used by gpi. Schemes also have their own identifiers, so different legs may need their own identifiers. Where a payment is re-routed it may need to be retrieved and re-generated with a new identifier.
- Any message needs to allow for more dynamic future settlement models.
- Character sets already have many standards and conventions. SWIFT uses Latin, whereas SEPA relies upon bilateral arrangements. The need to transport end-to-end across borders is a major consideration

The Next Meeting

- A whole day is scheduled for 14 December, if required.
- In advance of this participants will review the 'issues around standardisation' list and devise a list of priorities. This will inform subsequent discussions.



- The next meeting should focus on routing/addressing requirements and character sets; the Bank will follow up with a set of questions for members to consider in advance of the meeting.

Actions

- The Bank will draft Interoperability Principles setting out criteria to assess Working Group outputs. This will be circulated in advance of the 14 December meeting for participants to consider.
- The Bank will share the list of wider issues of standardisation for participants to prioritise and examine before the next meeting using the MoSCoW method. This will enable key discussions to take place.
- The Bank will update the Terms of Reference and circulate.
- The Bank will circulate a list of questions in advance of the next meeting in relation to routing rules.
- The Bank will continue to update the core credit message, incorporating feedback from the inaugural working group.



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 20022 Messaging Standards for RTGS

ISO 20022 is an important element of the RTGS (Real-time Gross Settlement) 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:

- a. Support broader UK public policy goals by enabling the transportation of richer payments data, including:
 - i. Improved macroeconomic data
 - ii. Better AML (Anti-Money Laundering) and KYC (Know Your Customer) checks
- b. Implement interoperable messaging standards, in order to:
 - i. Enhance overall system resilience by removing a barrier to the redirection of payment traffic between payment systems
 - ii. Create the potential for bank efficiency gains in the payments industry
- c. Support the development of innovative new technologies and systems by improving the quality and formatting of data carried with payment messages.
- d. 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 20022 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



Appendix B: Interoperability Working Group Terms of Reference

Overview

As input to the design of the new RTGS service, the Bank of England will organise and chair 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

A key outcome for this project is enhancing interoperability between both domestic payment schemes and international high value payment schemes. The Interoperability Working Group will be responsible for providing industry experience and technical advice to the Bank as it develops solutions for potential conflicts which may arise. The group will discuss, challenge and inform the Bank's decisions when managing trade-offs relating to the interoperability of the messaging standard. The group will review, in detail, the Bank's proposals for messaging schemas following the work of the Data Working Groups.

In doing so, this group will support the Bank as it writes the message schema incorporating the enhancements from the Data Working Groups. The work done by the SWIFT HVPS+ Working Group will provide the basis for the new standard¹. Informed by views from the Working Group, 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 Group and the consultation.

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

Objectives

The Interoperability Working Group will:

- Identify the additional data fields which will be required to support proposed enhancements;
- Determine how to structure the data within each field;
- Maintain proposals for the UK HVPS (High Value Payment System) that are aligned with the intentions of retail schemes in the UK and, where possible, on any emerging global instant payments developments;
- Review technical documentation that is developed for the new standard; and
- The Working Group will also consider the migration implications of any decisions it takes.

Outputs

- A complete set of messages and supporting documentation that will achieve our stated objectives for implementing ISO 20022. This will include:
 - A list of like-for-like fields common across domestic retail and international HVPS schemes; and
 - A break-down of data enhancements and views on whether these will be mandatory, conditional or optional as the implementation advances.

¹ For more information on the SWIFT HVPS+ Working Group please see: <https://www.swift.com/insights/press-releases/new-high-value-payments-systems-task-force-is-a-key-enabler-of-iso-20022-harmonisation>



Dates

Title	Date (indicative)	Duration
Interoperability Working Group 1	22 nd November	0.5 Days
Interoperability Working Group 2	14 th December	1 Day
Interoperability Working Group 3	10 th January	1 Day
Interoperability Working Group 4	8 th February	1 Day
Interoperability Working Group 5	7 th March	1 Day
Interoperability Working Group 6	18 th April	1 Day

Members

The interoperability group will be a small group of individuals. The member will require either a detailed technical understanding of messaging standards, of the data models common across the industry or payments business experience.

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	RBS
	JP Morgan
	Barclays
	Deutsche Bank
	Lloyds
	CLS
	Citibank
Non-CHAPS Banks	BNY Mellon
Non-bank PSPs	Metro Bank
Payments UK	WorldPay
Retail Schemes (/NPSO)	FPS
	Bacs
SWIFT	
PSR	

The Bank of England

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 Working Group will be chaired by James Whittle. The Bank will provide the Secretariat, and take the minutes and record any actions.

Decision making

The Group 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 to Spring 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. Minutes will record the full range of discussion within the Group.

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 Wednesday 22 November. 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.