



connecting the future

**RTGS – Road Map beyond 2024**

**Bank of England**

**April 2022**

*Response from The Payments Association*

## Introduction

The Payments Association welcomes the opportunity to contribute to the BoE “*RTGS Road Map beyond 2024*”.

The community’s response contained in this paper reflects views expressed by our members and industry experts recommended by them who have been interviewed and who are referenced below. As The Payment Association’s membership includes a wide range of companies from across the payments value chain, and diverse viewpoints across all job roles, this response cannot and does not claim to fully represent the views of all members.

We are grateful to the contributors to this response, which has been drafted by Riccardo Tordera, our Head of Policy & Government Relations. We would also like to express our thanks to the BoE for their continuing openness in these discussions. We hope it advances our collective efforts to ensure that the UK’s payments industry continues to be progressive, world-leading and secure, and effective at serving the needs of everyone who pays and gets paid.

With special thanks to:

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## Contents

The section numbering below corresponds to the numbering of the Survey published on the Bank's website:

### **Role of your organisation**

1. Is your organisation currently a user of RTGS?

We are a trade association, and represent a variety of businesses in the payments community.

2. Is your organisation a direct/settlement participant in a Financial Market Infrastructure?

Some of our members are, but not the majority.

3. What is your organisation type?

Trade association.

4. Is your organisation interested in joining RTGS or expanding its use of RTGS services?

Some of our members are.

5. Is your organisation interested in providing services to RTGS account holders? If so, in what capacity would your organisation be interested?

Some of our members are.

6. If your organisation is interested in connecting to RTGS and/or CHAPS, what are the barriers that have prevented you from doing so?

Our members to whom this question applies highlighted a very slow process, limited resources, and difficulties in getting an allocation slot for connection.

### **Questions on general trends**

1. In your view, what are the most important trends, driving the need for further enhancements to settlement in RTGS?

Resilience of the platform, cyber security and efficiency. It's important to be ready to embrace new technologies such as cloud-based data storage technology, to allow infrastructure level for CBDCs and to ensure API connectivity for interoperability purposes.

2. What do you think are the key opportunities to improve the efficiency of settlement in central bank money in the UK? Which type of payments have the highest potential for improvement?

Existing payments architectures were built a long time ago and are quite expensive to run. Modern technologies offer the potential for significant improvements in payments, making them faster and cheaper, particularly CHAPS and Faster Payments.

### Questions on priorities

1. See Table B in **Section 1.3**. Out of the features outlined in this consultation, what do you consider as the highest priorities that would bring the most benefit to your organisation beyond 2024? Please explain the reason for your selection, including an indication of implementation urgency of particular features.

Some of our members have stressed their priorities as being new ways of connecting because they believe the existing networks may still have issues that need to be addressed. However, others focus more on the need for innovative and flexible solutions, feeling that liquidity being a costly asset for RTGS users could be treated better to enable better use of this asset without increasing the settlement risk. All respondents agreed that world-class resilience is a key priority as by moving towards 24\*7 operations cyber security is key.

2. See Table B in **Section 1.3**. If you had to choose to deprioritise up to three of the features outlined in this consultation, what would they be? Please explain the reason for your selection.

The extension of RTGS operating hours is debated in the industry. Banks and bigger players claim there is no business case for it yet, hence are not interested into urgent implementation of feature 3.2. Nonetheless, smaller EMLs see the extension of RTGS operating hours as a business opportunity and would rather do not deprioritise feature 3.2.

3. Are there any additional features that the Bank of England should introduce as part of the long-term roadmap for RTGS that are not outlined in the consultation paper? If so, please explain how they would be beneficial for your organisation.

Three notable omissions from the proposed features are cross-border interoperability, identity-related issues and RTGS integration with offline payments. Some of our members would also welcome a new approach to AML and fraud prevention, as they believe that KYC, KYB and transaction monitoring tools should be integrated into RTGS rather than be delegated to third parties.

## 2.1: A new channel to send and receive payments

1. Read 'Why this is important'. Do you agree that RTGS should introduce an alternative channel to send and receive payments?

Despite the set-up costs and running costs, an alternative channel could drive competition and promote innovation, if there is a business need for this. However, the need to ensure standards of security and resilience are met will require a rigorous process to be followed for both incumbent and new channels.

2. Read 'Common contingency messaging channel'. Do you agree that RTGS should implement a contingency messaging channel in the event of an outage of the primary network?

Strongly agree	Agree	Neutral	Disagree	Strongly disagree
	X			

Yes, this is related to the importance of resilience and cyber security. And it should be interchangeable, with consistent standards and result in no additional complexity to the overall architecture.

3. Do you expect your organisation to use an alternative channel? If yes, what would your organisation use the alternative messaging channel for? If not, what is the reason for this?

Yes	No	Not applicable
		X

Responses to this question reflected the varied nature of our membership and we are not able to provide a single answer, hence we are not able to comment.

4. Read 'How it would work'. How would you assess the complexity and cost to your organisation from (a) adopting V-shaped networking and (b) using an alternative channel?

This question only applies to our banking members and, among them, the responses reflected nature of their RTGS engagement, whether direct or indirect participants; hence we are unable to comment in detail. We observe that, in general, V-shaped networking present more complexity and higher costs than alternative channels.

5. In your estimation, how long might it take your organisation to implement (a) an alternative channel; (b) a contingency messaging channel?

Most of our members to whom this question is relevant indicated a period of indicatively four to six months for both options.

6. Read '[Key outstanding questions and next steps](#)'. How would you suggest the Bank should implement an alternative connectivity channel?

This question is out of scope for most of our members. However, we gathered that those to whom this applies will support open networks, use of cloud and APIs as long as there is an interchangeable architecture, a proportionate rulebook and consistent standards. Overcomplicated assurance is in no one's interest.

## 2.2: Centralised RTGS identity service

1. Please read '[The principles we will follow](#)'. To what extent do you agree with the proposed design principles for the development of the Bank of England's PKI? Are there any other principles or design considerations we should consider?

Security is very important. But PKI may not work when quantum computing comes along. Hence the need to develop quantum resilience encryption to prevent this, and in sufficient time. We agree on all the other principles and do not wish to add further considerations / other principles.

2. Please specify any design considerations for PKI that the Bank should consider.

Most of our members refrained from comment. However, some highlighted the importance of considering a multidimensional approach and the usage of some military technology for definitive users' authentication, raising the point that algorithms so far only prevent commercial threats but are not really designed to prevent more serious threats.

3. Read '[Potential to expand to more payment systems](#)'. Do you agree that our PKI credentials should be available to other payment systems?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	X			

Yes, they should be available. It is reasonable and desirable to have all various systems in place connected to each other, in order to improve their performance and interoperability.

## 2.3: Automating data transfer with RTGS via APIs

1. How do you think the RTGS API platform should develop further to meet the requirements of the participants and the wider payments industry?

API technologies are progressively replacing web-server access. However, the rapidity and unpredictable nature of change requires the Bank to be close to the industry and to monitor how the industry is developing, involving all stakeholders in future framework discussions.

2. How important are each of the additional use cases in terms of their prioritisation for addition beyond 2024? Do you have any additional use cases to suggest? Please comment on the rationale and an indication of ranking among them.

	Very important	Important	Neutral	Unimportant	Very unimportant	Not applicable
Additional liquidity management features			X			
Reporting and analytics			X			
Management of network preferences			X			
Submission of payment instructions			X			
Account management			X			
Reconciliation			X			

We selected the neutral option because the responses across our membership varied depending on the nature of the business and on whether participation to RTGS is direct or indirect. Nonetheless we would like to highlight the importance of remaining vigilant to upcoming market trends and innovation, openness to future CBDCs developments and capability to deal with both online and offline transactions.

### 3.1: Synchronisation: linking RTGS to other ledgers

1. Read '[Why this is important](#)'. Do you agree that RTGS should offer an interface for synchronised settlement?

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	X			

2. Read 'Who this is relevant to'. Would your organisation be interested in using or providing synchronisation services? Please explain what your organisation would use synchronisation services for.

Our membership is very diverse . This would not be relevant for our member association and we are unable to respond on behalf of any one of our members. Overall, we are aware of interest in both using and providing synchronisation services.

3. Read 'Who this is relevant to'. How would you assess the complexity and cost to your organisation from preparing to (a) provide synchronised settlement and (b) use synchronised settlement?

Again, responses vary across our membership, but, in general, we do not think this would be such a complex task, particularly if this is achieved by the usage of APIs.

4. Read 'Participant requirements'. In your estimation, how long might it take your organisation to implement the relevant changes to use or provide synchronised settlement?

Our smaller members have indicated a shorter period of time (2-6 months), while bigger ones indicated a longer period, such as 24 months. This is clearly related to the nature of the business and we cannot provide a standardised answer.

5. Read 'Applications'. What are the most valuable use cases that would bring benefits for your organisation? Are there any other use cases not listed in this section that you would suggest?

The market evolves rapidly, and the Bank needs to make sure that it receives sufficient input from stakeholders to remain up to date and facilitate innovation. New use cases that were unthinkable just a short while ago may well become priorities, as recent market developments have shown, such as the broader trend of decentralisation and breaking up existing structures, traditionally based on middle men and information asymmetries, or Defi, that can be called out as a nascent approach to enable new business models.

6. Look at Figure 4 and Table D. Do you agree with the proposed implementation approach for synchronisation?

We agree.

7. What are your organisation's thoughts on the technical design or policy framework for synchronisation (eg data standards, connectivity and earmarking functionality)?



As a community, we cannot express a single view as this only affects a small number of our members. Generally, we think it seems appropriate, although this will take some time to implement.

### 3.2: Extended operating hours in RTGS

1. Read [Section 3.2](#). Do you think that the Bank should extend RTGS operating hours? If you agree, which RTGS services would benefit from extended operating hours?

This is where our membership expressed the greatest differences of opinion. Direct participants and generally bigger players do not see a business case for extended operating hours, while smaller EMLs and some indirect participants think they could increase their business whether they would be able to achieve operating hours extension. They have selected the following as RTGS services which would benefit from extended operating hours:

- CHAPS (including funding)
- Retail settlement
- Participant UI access
- API access
- Transfers between accounts within RTGS
- Transfers between RTGS accounts and commercially held accounts via CHAPS

2. If the Bank of England were to extend operating hours, to what extent do you expect your organisation to use the extended hours for CHAPS and wider RTGS?

The responses varied across our membership, depending on the nature of their business so we are unable to provide a single view.

3. Please specify what extension to operating hours would deliver the most benefit to your organisation, taking into consideration what is feasible for your organisation to support? Please answer separately for CHAPS and wider RTGS operating hours.

The part of our membership that supports the extension does not have a single view on what extension would deliver the greatest benefit. Responses varied from a minimum of 1-3 hours to a small but determined group of companies that hope for a 24/7 extension for both CHAPS and RTGS.

4. Read [‘Impact on participants and other users’](#). How would you assess the complexity and cost to your organisation from adopting and maintaining extended RTGS operating hours? Please specify whether your response differs depending on the length and type of

extension, including any difference between extending CHAPS and wider RTGS operating hours.

The responses varied depending on the nature of the respected members' business. Whilst smaller companies and start-ups do not foresee particular complexity or significant costs, other players have to face legacy systems, hence the cost and complexity related to the implementation of the relevant changes.

5. Please specify any practical constraints to implementing extended operating hours to your organisation.

The responses varied depending on the nature of the respected members' business. Whilst smaller companies and start-ups do not have significant issues, for some other players human resources considerations occur, such as staff training and other upskilling tasks, not to mention testing burden attributed to the technical and IT changes needed which adds on the cost/complexity analysis.

6. Read '[Impact on participants and other users](#)'. In your estimation, how long might it take your organisation to implement the changes required to extend operating hours? Please specify if your response would differ depending on the length and type of extension.

The responses varied depending on the nature of the respected members' business. Some members have indicated very little time, others up to 24 months.

### 3.3: More ways to generate intraday liquidity

1. Read '[What we are proposing](#)'. Do you agree that RTGS should introduce these features?

Yes, we agree with the proposal.

2. Would your organisation be interested in using either of these features?

Some of our members are interested.

3. For liquidity bridges, please specify which currencies you would like the Bank to explore for further liquidity bridges. Is your organisation interested in using reciprocal liquidity bridges (ie also use your liquidity in RTGS to generate liquidity in other currencies). If so, in which currencies?

We believe that the Bank should explore bridges with the most liquid currencies.

4. Read '[Impact on participants and users](#)'. How would you assess the complexity and cost to your organisation from adopting these features and using them?

Those of our members who are interested do not foresee any significant problem.

5. Read '[Impact on participants and users](#)'. In your estimation, how long would it take your organisation to implement the relevant changes?

Those of our members who are interested think that from a technical perspective it would take two months, but operationally six. This applies to smaller companies, while bigger entities could take between 6 months and one year.

## **4.2 Maintaining suitable contingency for settlement**

1. What models for Settlement Contingency should we consider beyond the third site arrangement that we currently operate (MIRS)?

We recommend the BoE to investigate options to work with third party providers that provide contingency settlement solutions.

2. Does the list of principles set out provide a suitable framework for selecting or designing a Settlement Contingency solution? How should we prioritise between these principles? Are there any other principles that should be added to this framework?

We are happy with the list of principles, which seem logical and appropriate. We have no further comments.

3. What should we consider when deciding how participants will be able to connect to the Settlement Contingency solution?

Given our broad membership we cannot give a single response to this question, however we observed interest for an API-like solution.

## **4.3 Reconciling data with participants**

1. The Bank is minded to make positive confirmations of reconciliations compulsory at end-of-day. In your estimation, how long might it take your organisation to implement relevant changes?

We believe this may take quite a while, particularly for banks. Nonetheless, we feel that, on the whole, this would be a good thing.

## 2. Does your organisation currently reconcile your balance in RTGS intraday?

The answer varies depending on the nature of our members' businesses and we cannot comment further.

## 3. If not, what are the technical barriers for your organisation to introduce intraday reconciliations, and how could these barriers be overcome?

Those of our members who have reported barriers mainly expressed frustration at architectural and cultural barriers.

More generally, we believe that reconciliation could be improved and may help some of our members to become more resilient and more efficient even if it requires some additional costs at first.

## 4. What would be the best medium for your institution to send and receive data for reconciliation (eg APIs, ISO messages)?

There is consensus to support both. And maybe even one within the other (i.e. ISO in API).

### **4.4: A retail contingency solution**

#### 1. Is your organisation interested in potentially using CHAPS as a contingency route for critical retail payments in the future (eg to increase options available for meeting operational resilience objectives)?

We believe that it makes sense to have a back-up, and a significant number of our members have confirmed they would use CHAPS as a contingency route.

## About The Payments Association

The Payments Association (previously the Emerging Payments Association or EPA) is for payments institutions, big & small. We help our members navigate a complex regulatory environment and facilitate profitable business partnerships.

Our purpose is to empower the most influential community in payments, where the connections, collaboration and learning shape an industry that works for all.

We operate as an independent representative for the industry and its interests, and drive collaboration within the payments sector in order to bring about meaningful change and innovation. We work closely with industry stakeholders such as the Bank of England, the FCA, HM Treasury, the Payment Systems Regulator, Pay.UK, UK Finance and Innovate Finance.

Through our comprehensive programme of activities for members and with guidance from an independent Advisory Board of leading payments CEOs, we facilitate the connections and build the bridges that join the ecosystem together and make it stronger.

These activities include a programme of monthly digital and face-to-face events including our annual conference PAY360 and awards dinner, CEO round tables and training activities.

We run 5 stakeholder working Project groups: Inclusion, Regulator, Financial Crime, International Trade and Open Banking. The volunteers within these groups represent the collective view of The Payments Association members at industry-critical moments and work together to drive innovation in these areas.

We also conduct exclusive industry research which is made available to our members through our Insights knowledge base. These include monthly whitepapers, insightful interviews and tips from the industry's most successful CEOs.

See [www.thepaymentsassociation.org](http://www.thepaymentsassociation.org) for more information. Contact [malik.smith@thepaymentsassociation.org](mailto:malik.smith@thepaymentsassociation.org) for assistance.