

# Bank of England

## RTGS Renewal Programme

# Workshops on Roadmap for RTGS beyond 2024: Alternative Channels - PKI/MNAD

18 May 2022

The workshop focused on gathering industry feedback on new ways to connect to RTGS.

### **Public Key Infrastructure (PKI)**

The Bank gave an overview of how PKI operates and the core principles for this functionality; identifying that it would be required to deliver many of the proposed features of the long-term roadmap for RTGS securely. The Bank emphasised that security or assurance standards would not be compromised in its delivery of a PKI. One of the Bank's considerations is whether we can enable the Bank's PKI to be used in other payment systems; reducing the inefficiency and costs for participants of connecting to multiple PKI's.

The attendees discussed use cases for PKI: namely, enhanced APIs; synchronisation; another commercial message network; contingency network; extending the PKI to secure other payment networks e.g. NPA. Attendees also noted that further use cases for PKI were likely to emerge after its implementation.

Several elements of a cost-benefit analysis for PKI were also raised; highlighting the security uplift and strengthened business continuity that it would bring, as well as the complexities surrounding the introduction of PKI, how to minimise these, and the balance between value for money and resilience.

Attendees highlighted their desire to avoid a PKI certificate issuance process involving in-person authentication at the offices of the Bank.

The Bank also asked attendees about their preferred timeline for PKI delivery. Some attendees highlighted their concern about the impact of implementing the Bank's PKI in parallel with retirement of MT messages in 2025. The Bank will continue to engage with participants to reduce complexity and cost for participants during PKI delivery.

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### **Message Network Agnostic Design (MNAD)**

The Bank gave an overview of MNAD, which will allow payment messages to be sent in any secure, ISO20022 compliant format over any appropriate physical network. It was emphasised that there is no ambition to replace SWIFT, rather the aim is to allow participants to choose networks based on their use cases. The Bank also confirmed that the data standards will be the same independent of the network.

Attendees noted that MNAD could provide significant resiliency benefits should a second network emerge. They noted, however, the distinction between a contingency network that is 'cold' and having multiple networks – with the latter improving competition, and potentially coming at a lower cost.

Some attendees called attention to the challenges experienced with testing of current infrastructure change (e.g. migrations, connectivity testing in other jurisdictions etc.) within the industry. The importance of having high levels of contingency for testing and sufficient time to test in order to support the industry ahead of the implementation of any functionality was emphasised amongst attendees.

### **Common Contingency Messaging Channel:**

The Bank noted its proposal of a file based message transfer contingency solution did not have strong support when discussed with industry at the previous workshop in September 2021. When moving to a V-shaped messaging topology, however, a contingency channel could deliver resiliency benefits prior to the emergence of a second network. As such, the Bank invited views from attendees on whether there is a case for a contingency messaging channel and in what situations it may be useful.

Attendees repeated a desire from previous industry engagement to avoid a file-based system, due to complications arising from multiple charges associated with a single debit on an account. The potential cost-efficiencies that providing an end-to-end resilience layer (an alternative route for participants during a SWIFT outage) could realise over building and maintaining a cold channel were also discussed.

Discussion was also invited on alternatives to a file based transfer solution. In addition to the preference for an actively used alternate network, some attendees also highlighted the

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possibility of using a high availability API. The Bank will continue to explore contingency solutions further.