



FINTECH ASSOCIATION
OF HONG KONG

HKAB Public Consultation on Phase III Banking Open API Standards – 13th October 2021



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The FinTech Association of Hong Kong (FTAHK) is a **member-driven, independent, not-for-profit, & diverse** organisation that is the voice of the FinTech community in Hong Kong. It is organised and led by the community, for the community, through a series of committees and working groups.

Our objective is to promote Advocacy, Communication and Education in the wider FinTech ecosystem.

Build the community.
Be the connector.

A. FOREWORD

The Hong Kong Association of Banks (HKAB) launched a Public Consultation on Phase III Banking API Standards on 14 September 2021¹, “to promote the secure and efficient implementation of Phase III Banking Open API functions” as announced by the Hong Kong Monetary Authority (HKMA) on 13 May 2021².

HKMA’s timeline anticipates the finalisation of Phase IV for December 2021, followed by Phase III in March 2022 for SME customers, and June 2022 for retail customers³.

HKAB has indicated that the draft document (“the draft”, “the document”) within the scope of this consultation aims to serve as a facilitation tool to support the technical implementation of Phase III APIs, covering areas of customer authentication, user experience, data, technical, information security and operational standards. The initial Phase III implementation covers Banking Open APIs that enable read-only access to selected deposit account information, including account availability, account status, account balance and transaction details for retail and business customers.

The benefits of Open Banking APIs and their key role, if appropriately implemented, in supporting FinTech strategies are being actively demonstrated. For example, in the UK, Open Banking APIs in 2020 saw 4.3bn API calls across a range of 109 services, with most success in the areas of ‘Improved Financial Decision Making’, ‘Expanded Payment Choice’ and ‘Better Borrowing’⁴.

The FinTech Association of Hong Kong (FTAHK) greatly welcomes HKAB seeking third-party views and non-bank participation in the context of a public consultation. FTAHK members span both banks and non-banks so it should be noted that members will not necessarily subscribe to all feedback provided within this document. FTAHK represents a significant cross-section of Hong Kong’s FinTech ecosystem and seeks to balance the views of all its members.

We offer our thanks on behalf on the FTAHK’s Banking Open API working group, the Digital Banking & Payments committee, and the Board of Directors. The FTAHK welcomes the opportunity to discuss any of the feedback provided in future follow up sessions with HKMA, HKAB, and relevant stakeholders.

FTAHK Banking Open API Working Group

13th October 2021

<https://ftahk.org>

admin@ftahk.org

¹ https://www.hkab.org.hk/DisplayWhatsNewsAction.do?ss=10&id=6193&lang=en&key_=&year_ =0&act_ =

² <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2021/05/20210513-3/>

³ <https://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2021/20210513e3a1.pdf>

⁴ <https://www.openbanking.org.uk/media-kit/>

B. THEMATIC FEEDBACK

B.1 DOCUMENT TITLE & INTENT

Rename as 'Phase III Banking Open API Guidelines' rather than 'Standards'

The draft document indicates in the Note on page 6 that “this document is intended [to] act as a high-level guideline”.

The generally accepted use of ‘Standards’ in the context of Financial Services has been influenced by such bodies as the International Organisation for Standardisation (ISO), producing a range of standards including ISO 20022 which HKICL adopted for its Faster Payments Service. Such standards are highly detailed, prescriptive, and usually mandatory.

Both the intent (as noted above) and the content of the draft document are not ‘standards’ in this sense, but rather guidelines, made further ambiguous by the heavy caveats included in section 1.2 of the draft.

To avoid confusion with generally accepted understanding, it would appear naming and referring to the document as ‘Phase III Banking Open API Guidelines’ would be beneficial.

B.2 REGULATORY CONTEXT

Add an introductory section to clarify HKMA goals and HKAB’s mandate under which the document has been produced

Building upon the previous feedback point (B.1) we would welcome introductory context and rationale for the document. This could for example leverage learnings from HKMA’s “The Next Phase of the Banking Open API Journey” study⁵, where the definition of adoption levels notably focused on the creation of Open APIs by the banks and appetite from TSPs, rather than measuring outcomes or usage levels i.e., based the active provision of relevant data between banks and TSPs. The HKMA’s imminent Tech Baseline Assessment may also serve as a possible channel to commence ongoing review of performance targets.

The draft document currently presents a useful aggregated view of Open API best practice from a technical implementation perspective, yet lacking a supporting rationale to clarify HKMA’s expectations, vision, and a perspective on what success looks like. This differs starkly from Singapore’s flexible approach backed by a strong regulatory-led vision, or the UK’s prescriptive approach with inherent mandatory requirements – leaving Hong Kong with the risk of launching an expensive, technology-led, functional initiative, without facilitation of the strategic lens needed for business growth.

As such, there is a concern that the derived metrics for banks will continue to be capability based rather than couched in business drivers. Addressing this gap is

⁵ https://www.hkma.gov.hk/media/eng/doc/key-functions/ifc/fintech/The_Next_Phase_of_the_Banking_Open_API_Journey.pdf

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necessary to help banks make the case for critically assessing feasibility of use, prompt business model review, better ensuring fair and viable access to potential TSPs, improve end-consumer value creation, and ultimately tangibly grow Hong Kong's fintech economy.

B.3 INTERNATIONAL STANDARDS

ISO 20022 to be included as a recommendation in Section 10

The 28 participating banks of the Open API Framework will be utilising the existing HKICL Faster Payment System (FPS) implementation to fulfil Phase IV Faster Payment app to app payments, as noted by the HKMA on 13 May 2021⁶.

HKICL FPS has already adopted ISO20022 and as part of a standardisation under PSD2 across Europe a unified 'access to account' data dictionary has been developed which is a candidate for registration in the ISO 20022 dictionary.

This feedback point is further elaborated in the detailed comments available in section C of our response.

B.4 iAM SMART

Build on positive inclusion of iAM Smart and desired expansion of benefits

The inclusion of iAM Smart as a means of providing existing strong customer identification for the TSP (in addition to the banks) is welcomed. Reliable remote identification remains a challenging area for both service providers and customers, with services such as iAM Smart therefore providing significant benefits to all parties, including leveraging iAM Smart's inherent cross-industry support to open a path to diverse Hong Kong industries considering the appeal of becoming a TSP leveraging bank data. An expansion of the guidelines to cover iAM Smart implementation and the benefits is suggested given these 'ecosystem' benefits, with at minimum a reference to the path required for TSPs to independently join the iAM Smart sandbox rather than necessitating a reliance on the banks which have built support.

The draft document would also benefit from clearly indicating guidelines for linking authenticated individual identity with authorised access alongside the associated consent for each of the account information providers.

B.5 AMBIGUITY OF GUIDANCE

Strengthen wording in 'non-controversial' areas from 'could' to 'should'

A number of areas of the draft document would appear to benefit from strengthening the tone of the 'Guideline' (see B.1 above), which are at risk of appearing unfinalised by changing the wording from 'could' to 'should'. To avoid ambiguity, any recommendations purposefully left as 'could' may benefit from being accompanied by the alternatives HKAB has also identified as best practice, with rationale to guide a decision.

⁶ <https://www.hkma.gov.hk/media/eng/doc/key-information/press-release/2021/20210513e3a1.pdf>

Such areas generally include using the Open API Specification (OAS)⁷ and use of JSON object format for the request and response payload (section 6.6.2), as well as other references, specifically:

- 6.2.2 – to ‘the bank using RESTful APIs as the communication protocol and the JSON data message format for the development of the Phase III Banking Open API.’
- 6.4.2 – to ‘the bank and the TSP could consider the following Banking Open API header definition requirements and parameters.’
- 6.5.2 – to ‘the bank and the TSP could consider the following Banking Open API response code definitions to facilitate the easy understanding of error messages’
- 6.6.3 – to ‘the bank and the TSP could consider maintaining a consistent data format when defining the payload structure of the Banking Open API.’

Operational recommendations in sections 13.2.2, 13.3.2 and 13.4.1 would similarly benefit from strengthening the language, as these non-functional attributes are critical.

There would also be benefit from either HKAB or the HKMA publishing statistics on API performance as demonstrated in the UK⁸.

B.6 SUPERFLUOUS EXAMPLES

Remove examples of approaches that would be in excess of a ‘fit-for-purpose’ risk-based approach requirement for TSPs handling ‘low-risk’ transactions

In section 3.7.1 Customer Data Access and in 8.4.1, the example to access account info and transactions for a TSP is given as two-factor authentication. Customer Account Balance / Transaction Data is generally considered to be a low-risk enquiry, provided no personal information included, and as such two-factor authentication’s suitability will depend on a fit-for-purpose risk assessment.

These are not within the current definitions - see sections 4.1.3 and 4.1.4 of the TM-E-1 Risk Management of E-Banking⁹ for the current recognised high-risk transactions¹⁰.

B.7 CONSENT REFRESH

Reassess the examples of Refresh Consent as a standard 90 days

Although the refresh consent is indicated as a matter between the TSP and the Bank, the examples provided via screenshots in 8.3.3 and 8.3.9 and references in section 8.4.2.2 to accepted international practice, the 90 day full refresh consent appears not to be optional.

⁷ <https://github.com/OAI/OpenAPI-Specification/blob/main/versions/3.1.0.md>

⁸ <https://www.openbanking.org.uk/api-performance/>

⁹ <https://www.hkma.gov.hk/media/eng/doc/key-functions/banking-stability/supervisory-policy-manual/TM-E-1.pdf>

¹⁰ High Risk Transactions - 1. increases of the transaction limit(s) 2. transactions with amount exceeding SVF transfers 3. funds transfers to non-registered third-party payees 4. bill payments to non-registered merchants that have been classified by the Bank as high-risk merchants 5. Registration of payee/merchants (i.e. even for SVF) 6. Displaying of sensitive account information on screen (including via other channel like social media platforms) 7. Change of sensitive account information 8. Change of 2FA factor (e.g. change of customers’ fingerprints/face ID used for authentication) 9. Binding/linking of the social media platform’s account with the Internet banking account which subsequently becomes one of the channels to meet the minimum notification requirements or act as one factor of customer authentication 10. online binding of a customer’s bank account or payment card with his or her contactless mobile payment App 11. administration of Internet banking user accounts (e.g. user account creation) in business Internet banking

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A fit-for-purpose risk-based approach to assess the appropriate refresh cycle, for example simpler to a third-party payee in online banking requiring refresh after 12 months of dormancy. We also suggest that the ability to track context for consent is critical from a data sharing perspective as it is linked to purpose.

Given (as noted in B.6 above) the low-risk nature of the read-only account transaction information, a 90 day consent refresh irrespective of dormancy appears excessive. Screen flow examples in section 8.4 indicate that for each of an individual's accounts consolidated in a TSP service a full sign-on to each bank is required. This would be a very poor customer experience and does not appear to be justified on a risk-based assessment.

B.8 APPLICABLE SCOPE

Clarify rationale for scope, such as SVFs and Payment Cards

There appear to be benefits to encouraging the extension of scope as soon as feasible to areas such as credit cards, identified during the HKMA industry consultation conducted in September 2020¹¹. Results indicated the most commercially viable banking products available were Credit Cards/Commercial Cards at 60%, followed by Lending 56%, and Deposits 53%.

Similarly, an extension of the participating regulated entities to SVFs would also be positive for the target customers.

B.9 CENTRALISED ENTITY

Clarify stance on the benefits of the bilateral approach

Based on the experiences of other markets, in particular the UK, it is worth including provision for the possible creation of an industry-led centralised entity. This could be modelled on the similar role that HKICL provides for Faster Payment System (FPS), particularly as FPS is noted to be the first implementation of Phase IV.

There is potential synergy with the Fintech Cross-Agency Co-ordination Group suggested within HKMA's "Fintech 2025" strategy¹², a group in which FTAHK would welcome participation.

¹¹ Figure 12, page 16: https://www.hkma.gov.hk/media/eng/doc/key-functions/ifc/fintech/The_Next_Phase_of_the_Banking_Open_API_Journey.pdf

¹² <https://www.hkma.gov.hk/eng/news-and-media/press-releases/2021/06/20210608-4/>

C. ADDITIONAL DETAILED COMMENTS

SECTION 10: DATA STANDARDS

Observations

The document does not recommend a data standard. For context:

- FPS uses ISO 20022 messages
- CHATS RTGS will migrate to ISO 20022 starting in October 2023
- Global correspondent banking payments messages will migrate to ISO 20022 messages starting in November 2022

It would be beneficial for harmonisation and alignment to ensure that the data element definitions and field lengths in the APIs are aligned to the ISO 20022 dictionary. For example, there should not be confusion over what is meant with an “available balance” – reusing the ISO 20022 dictionary would ensure this alignment across the whole financial ecosystem.

If we apply this principle to the sample APIs in the draft document, we see for example:

- Currency code RMB should be the ISO currency code CNY
- Accountnumber should ideally be called accountidentification
- Accounttype should be taken from the ISO registered ExternalCashAccountType1Code set: CACC for Current and SVGS for Savings, instead of the English terms which can stay as clarifying comments
- Similarly, BalanceType should be OPNG for Opening Balance (unless it means Opening Available?), CRRT for Current Balance, and potentially Available balance (Interim Available balance?) so that the correct code is used

The examples provided are not exhaustive but illustrate the need and benefit to use unambiguous, industry-wide definitions.

We also recommend referencing work performed by the European Market practice groups UK Open Banking, STETT, and the Berlin Group to unify an open banking “access to account” set of resources that are available for use across Europe for PSD2 open banking. These “access to account” resources are also candidates for registration in the ISO 20022 dictionary - the process is ongoing. When finalised, this effort will ensure that the same API resources can be used across Europe, making implementation much smoother and scalable whilst reducing risk. Currently there are essentially three sets of resources in use, as defined by the practice groups, which already allows for a level of harmonisation and ease of implementation.

A standardised set of API resources to use in the context of Hong Kong Open API would also allow this smooth, scalable, reduced risk implementation, whilst accelerating innovation since TSPs would not need to waste effort implementing different APIs towards each bank.

Recommendation

Aligning the data standards to the ISO 20022 data dictionary would allow for unambiguous implementation aligned with FPS, and soon with CHATS and cross border payments as well. In addition, to facilitate smooth, scalable, reduced risk

implementation and accelerated innovation, we recommend defining a set of standardised ISO 20022 based API resources to use across Hong Kong's financial ecosystem.

Supporting Info

Useful links: www.iso20022.org for access to the financial repository, base message definitions, and supporting documents such as external code lists.

Specifications for FPS and CHATS can be consulted on www.swift.com/mystandards (free account required, specs access dependent on approval of HKICL).

Cross-border ISO 20022 CBPR+ specifications are also available via the Swift MyStandards site.

D. ADDITIONAL MINOR COMMENTS

SECTION 3.2.2

Should the footnote instead reference the TSP Common Baseline? i.e. <https://www.hkab.org.hk/DisplayArticleAction.do?sid=5&ss=22>

SECTION 12.4.1

Some of the terminology could be refined e.g.

- Point [i]: “the right network access control” to “authenticated, appropriately managed”
- Point [ii]: “the correct set of users” to “only current authenticated and authorised users”
- Point [v]: for the bank to assess the risk of the threat and to protect ‘bone fide customers acting in good faith’ seems more appropriate than only ‘enable notification’

GENERAL

It would be helpful to clarify support for the full range of currencies of ‘bundled accounts’ offered by a number of the banks, rather than just the three referred to in Section 10.

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<https://ftahk.org>

admin@ftahk.org