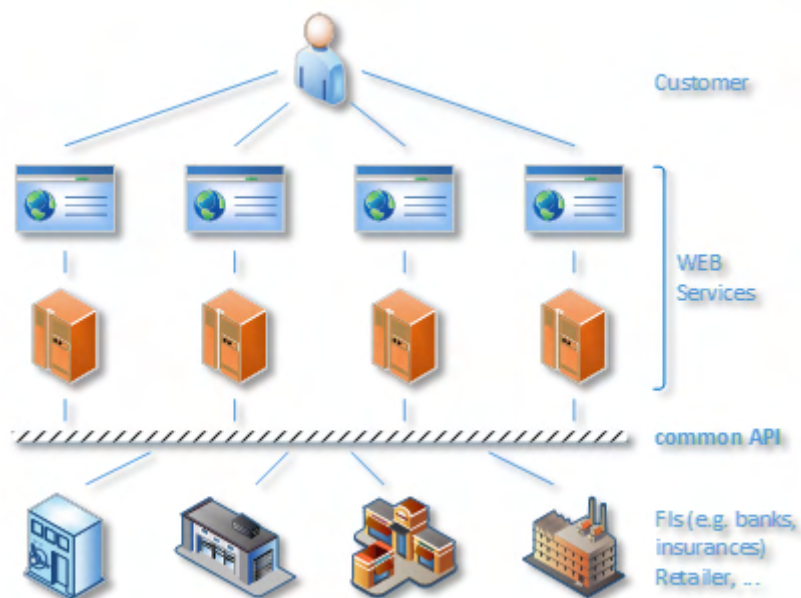


SFTI - working group 'Common API'

Multibanking Services

Key Issues Paper



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About SFTI

Swiss Fintech Innovations (SFTI) is an independent association of Swiss financial institutions committed to drive collaboration and digital innovations in the financial services industry. For more information about Swiss FinTech Innovations, please refer to

<https://www.sfti.ch>.

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Management Summary

In the client-centric world of tomorrow, Multibanking will become a relevant feature for a retail bank's offering to its retail clients. Initially, the bank that supports multibanking will have an edge (as it offers this "new" innovative service), but after a few years, the bank that does not support multibanking will have a clear disadvantage (as clients expect this feature).

In the EU, PSD2-induced multibanking is already standard for retail clients, and the analogous applies to the UK. In Switzerland, it is possible for corporate clients and especially wealthy clients to get a consolidated overview of assets, but no offer is currently available for private clients. In terms of client demand, the view over the border to the EU as well as studies from the Swiss market show, however, a significant interest in Multibanking services.

Multibanking is only the first step into the world of Open Finance and will not only allow the bank to expand its service offering and improve client experience. The move to Multibanking is also an important first step on the road to Open Finance, i.e. the provision of a bank's own services or the integration of others into its own value creation via so-called APIs.

This paper focuses on an initial multibanking offering, i.e., a first implementation providing basic multibanking services. It explicitly does not aim to cover a full-fledged multibanking offering, as this would be far too complex for a first step into open banking.

It therefore examines the three possible implementation options for the introduction of a multibanking offering for retail clients:

- Decentralized peer to peer approach: The connection and retrieval of account information via individually established bank-to-bank connections
- Centralized platform approach: The connection via a "central hub", which makes it possible to reach several banks in a standardized procedure via one connection.
- Hybrid approach: For the purpose of completeness, the approach in which the trust authority is centralized but the communication is handled decentrally is also described.

This key issues paper shows the relevant aspects for the launch of a Multibanking offering for retail clients from the perspective of a Swiss financial institution. In the analysis of the respective aspects, the paper will consider the before mentioned implementation options to indicate how each aspect is covered or needs to be implemented depending on the implementation option.

During the writing of this paper, it became increasingly clear that those bank representatives in the Common API working group who were already prepared to decide all favored the platform approach. More than that, the specific preferences were all directed towards the SIX bLink¹ platform, which is why this document takes an in-depth look at this option.

¹ For details, see <https://www.six-group.com/de/products-services/banking-services/blink.html>

1. Introduction

1.1 Starting Point

The following list contains important aspects on Multibanking, but by no means claims to be complete:

- In the course of PSD2, many EU banks have introduced Multibanking services to clients (e.g., Revolut, Sparkasse, etc).
- In Switzerland, only corporate and wealth management clients currently have access to consolidated views of their bank accounts, i.e. the retail segment is not addressed yet, although the necessary technological infrastructure meanwhile is in place.
- With the implementation of uniform APIs, which has now also begun in Switzerland², the basis exists for the first time to introduce a multibanking offering for the retail segment as well.
- As the Swiss market has adopted a market-driven approach to Open Banking and Open Finance, financial institutions are not obligated to offer interfaces which allow other banks or third parties to obtain client information.
- Recent studies³ indicate that Swiss retail clients are indeed interested in such services.
- On the other hand, financial institutions have shown increasing interest in an initial Multibanking offering based on SFTI's Common API standards, which led to the preparation of the present document.

But while there is significant demand for multibanking from retail clients as well, no single bank is in a position to launch a multibanking offering without the certainty that there are other banks willing to cooperate in this endeavor (that's what's behind the word "multi").

This situation is best resolved when a group of financial institutions launches such an offering in a joint effort to provide multibanking services to their clients. If a bank is only looking to receive data from other banks but is not willing to share data in return, the other bank will likely not allow access to its interfaces. It is therefore in the interest of all banks willing to participate to find common ground when it comes to agreeing to exchange data when their clients want to use multibanking services.

It is all the more urgent to take action here, as it is ultimately not up to the individual bank to decide more or less exclusively on the use of its clients' data. In their role as data owners, bank clients are now being encouraged from many sides (e.g., politics, consumer protection, media) to look after their interests themselves and directly. Developments abroad are a good

² OBH from Swisscom, bLink from SIX, OpenWealth, etc.

³ see e.g. <https://blog.hslu.ch/retailbanking/2020/09/14/wuerden-retail-banking-kunden-multibanking-nutzen> by Prof. A. Dietrich

indication of where the journey is heading when regulatory efforts are made to create the conditions for multibanking (e.g., PSD2, Open Banking UK).

The abovementioned indicates that consumer and financial institution interest as well as technical feasibility have reached the tipping point. With key issues understood and addressed, this paper assumes that a significant number of financial institutions would be willing to invest in a multibanking solution and launch an initial multibanking offering within the next twelve to eighteen months.

1.2 Main Objectives

This document is intended as a guide for decision-makers of financial institutions (FIs) in Switzerland on the subject of an initial Multibanking offering⁴ with a focus on retail clients. It shall serve two purposes:

1. To give an overview of the opportunities and challenges related to Multibanking
2. To address all aspects relevant for the involved organizational units at the FI

This document is thus a complement to SFTI's White Paper on Multibanking⁵ which focuses primarily on use cases, business processes, and their technical implementation. In contrast to this, the present document focuses on the strategic management perspective of financial institutions.

Another focus of this key issues paper is the implementation of a pilot project. Although this document also touches on other aspects of multibanking, its emphasis is on such an initial proposition.

The Multibanking services addressed by this proposition shall be limited to read-only access (XS2A).

1.3 Business Stakeholders

1.3.1 Perspective of FIs

First and foremost, the FIs' perspective is taken here. However, it is in the nature of Open Banking that the client perspective also plays a prominent role. In his role as data owner, the client nowadays has a position in which his account-holding financial institution does not necessarily offer access to his data exclusively. Financial institutions will have to get used to becoming more open in their interfaces and more comparable in their services.

To meet the rapidly growing importance of Open Banking or Open Finance in a broader sense, Swiss banks have to offer services that go beyond the direct and exclusive maintenance of their own client relationships. Multibanking services offer a good starting point here.

⁴ For a definition of Multibanking and other key terms, please refer to Appendix, [A.2 Key Terms](#)

⁵ <https://swissfintechinnovations.ch/sfti-white-paper-on-multibanking-a-first-concept-on-how-to-bring-open-banking-to-life>

By starting with simple services such as the presentation of cross-bank account information (Access to Account services), significant added value can already be created for bank clients, without the complete loss of the client interface being a matter of discussion. This significantly lowers the hurdle for Open Banking.

Nevertheless, any introduction of Multibanking will lead to a situation that is largely unknown to the participating FIs. No matter whether it is at the corporate strategy level, or at units responsible for corporate development, L & C, data privacy, or API security - Multibanking will affect them all to a greater or lesser extent.

Therefore, anyone working at a bank would be well advised to have the necessary information at hand when it comes to discussions about the targeted activation of the FI for which he or she works. The next section holds an overview of facts which might be important for a well informed decision.

1.3.2 Perspective of TPPs

The role of TPPs is not covered here in detail. This is mainly due to the fact that from a technical as well as from a legal perspective, retail Multibanking is completely new territory for the participating banks. Onboarding and management of TPPs would make this initial offering significantly more complicated.

To keep the complexity within manageable limits, TPP centric scenarios are not yet included in the considerations of this document. However, this does not imply any exclusion of third parties, i.e. each participating bank is of course free to open its API to TPPs at any time. To best possibly support this approach, SFTI shall extend this document with TPP centric scenarios at a later point in time.

1.4 Scope of initial proposition

To determine the best possible scope of a first set of Multibanking services, a distinction between the requirement characteristics of the different client segments is helpful. As already laid out in the SFTI White Paper on Multibanking, there are various business-related aspects (client segments, data access modes, data source, asset categories etc.) that must be considered. The following figure shows core examples of relevant dimensions across business areas:

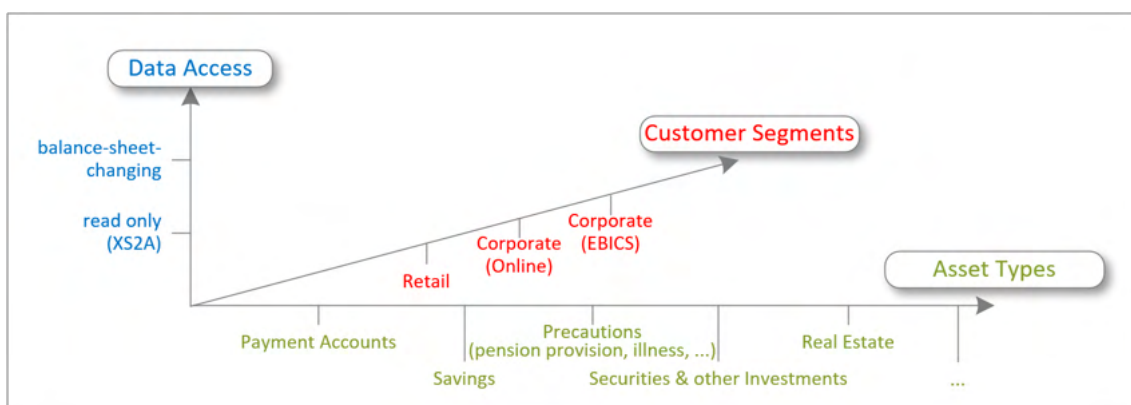


Figure 1: Relevant dimensions

With regard to the client segments to be served with an initial multibanking offering, the following overview can serve as a decision-making aid as to where to start:

	Retail Clients	Micro-enterprises & SMEs	Large Companies & Corporations
Complexity	low	average	high
Core Functionality	Payments	Payments plus Accounting	Paymentst, Accounting plus more
Solution Approach	Requirements determine choice of product => Start with extended e-banking is sufficient	Requirements determine choice of product => Web-based accounting solution is in demand	Requirements determine the choice of standard => Connection to existing ERP system is required ⁶
Status quo	no solution in place yet	covered by <i>bLink</i>	covered by <i>EBICS</i>

Presumably, and based on the status quo as outlined above, an MVP in the retail segment offers the best prospects: Its functional scope may be limited without becoming useless, and since there is no solution at all for this segment yet, new services may act as an ice breaker also for the FIs ready to participate.

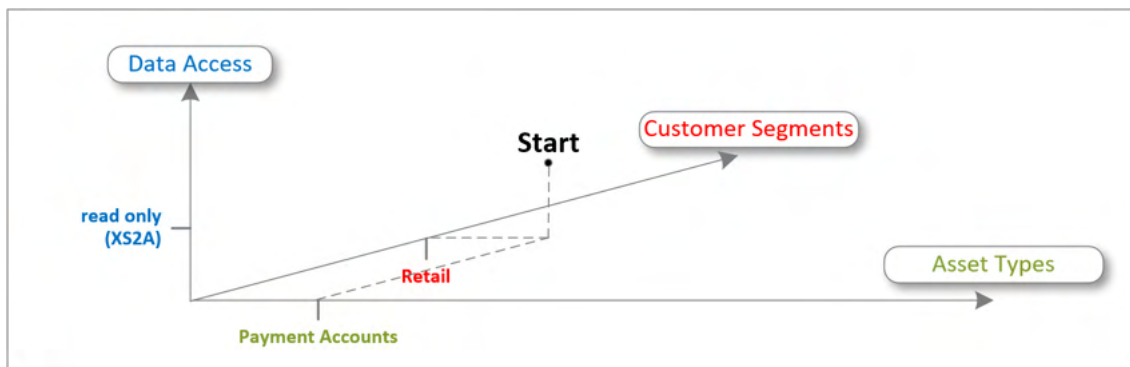


Figure 2: Starting point

In order to make the goal of offering Multibanking feasible in a manageable timeframe it is crucial to determine a realistic scope of initial services. Based on the aforementioned, this paper proposes to define realistic initial scope as with the following parameters:

- **Client Segment:** Retail clients
- **Asset categories:** Cash Accounts⁷
- **Data access mode:** Read-only⁸
- **Type of Data:** Productive Client Data
- **Interfaces:** Standardized *Access to Account-API*, as developed by SFTI⁹

⁶ A standalone solution that is not integrated into the ERP system is not an option here, because the ERP system is also used as a central integration platform for other business processes such as material management, production planning, etc.

⁷ Same data I can see in my e-banking account statements.

⁸ No payment submission or initiation

⁹ For details, see <https://www.common-api.ch/index.php/de/resources-de/swagger-files?id=50>

For the time being, the members of the *Common API* working group as authors of this paper have decided on a centralized approach based on SIX' bLink platform.

This paper does not cover:¹⁰

- **Access of non-banks** (e.g. TPP Aggregators, ERP) as the aspects relevant to enable Multibanking might differ from Financial Institutions
- **Corporate segment** as their requirements exceed the defined scope and since they have available alternative solutions (e.g. through non API based channels such as EBICS)

With regard to the underlying API specifications, the Multibanking offering described in this document is based entirely on the work results of the Common API working group of SFTI.

This working group is currently the body in which by far the largest number of Swiss banks are working together on the creation and management of API specifications.

In the spirit of a market-based approach, this working group is also open to non-members of the association at any time.¹¹

All output of the Common API working group is of course published as open source and is available free of charge to any interested party.

Remarks with regard to anti-competition law:

- Since the Joint API Working Group is a forum that brings together a number of banks that together cover a large portion of the market, it is important to be aware of and comply with the applicable competition laws.
- Limited scope of information exchange: Any exchange of information between the parties occurs only for the purposes of the creation of the paper.
- Pricing or other sensitive commercial information (cost, margin, clients, etc.) shall not be part of the discussions here.
- Confidential information (especially information on product & business strategy) must not be shared here.

¹⁰ Note: The mentioned groups are not excluded from offering Multibanking or benefit from a Multibanking offering.

¹¹ This is not limited to Swiss financial institutions, but also includes TPPs and other players related to the financial center.

2. Reasoning of Multibanking

By introducing a multibanking offering, banks benefit through a number of different services that they can offer. There are, however, challenges that each bank needs to understand when considering introducing Multibanking. This chapter highlights the opportunities of Multibanking offerings, but it also focuses on the challenges that need to be faced and how best to turn these into opportunities as well.

2.1 Strategic Considerations

At first glance, the main question for the strategy responsible might be: "*Do we want to participate in the multibanking ecosystem?*". But in view of the developments already underway in the international financial centres, this approach no longer serves any purpose. Instead, the question must be: "*When do we start?*"

Many developments indicate that the end client is becoming more and more empowered to take the selection of his preferred partners for the management of his financial situation into his own hands. In many other industries, this is no longer an issue. In the Swiss insurance industry, for example, a platform already exists through which more than 25 insurers may provide access to their offerings for around 1,000 brokers.¹²

So from a strategic point of view, the question is not "*yes or no*", but "*when and how*", and against this background, multibanking with read-only services is a very good entry into the open banking world.

In this context, discussions often arise about the risk of losing the client interface. But to be realistic: already now, users of multiple bank accounts are usually well aware of the advantages of their choice, and usually it is not primarily the user interface that makes a client choose a bank, but the mix of quality and cost of the services offered by that financial institution. Clearly spoken: The client's decision on what to do where is mainly determined by the service and not by the channel through which this service is offered.

Remains the question of "how": As outlined earlier in this document, multibanking can either take place directly between banks, or it can be managed via a central platform. The latter is possible via the bLink platform from SIX. This offering not only covers the technical issues, but also consists of a L&C framework that addresses any relevant question regarding the participation in such an ecosystem.

Here, each participating bank is required to vote on the preferred approach, which is then coordinated between all participating banks in a next step.¹³ First consultations in the Common API working group of SFTI have shown a clear preference towards the bLink platform. This decision is supported not only by those banks that are quasi-founding members of bLink, but also by SFTI members who have not yet been involved in the evolution of this platform.

¹² For an excursus regarding the EcoHub platform of IG B2B (<https://www.igb2b.ch/ecohub>), see [Appendix A.4 Excursus on insurance cases](#).

¹³ The use of an intermediary platform may be more effective in creating network effects, reduce costs, better scalability. There is a willingness to explore solutions enabling FI's/our clients to connect to such intermediary platforms.

2.2 Benefits of Multibanking

This section shows some core benefits that are relevant in the context of Multibanking:

- **Aggregated Asset View / Real-time liquidity insights**
A holistic liquidity view is critical for managing financial resources and making investment decisions. For this purpose, real-time statements from all banks are retrieved via automatic account reconciliation and an up-to-date snapshot of the financial status is created.
- **Dynamic search across linked accounts**
For users of multiple accounts, it is very time-consuming to retrieve information about a specific transaction, identify duplicate payments or perform a check of historical transactions. Dynamic search across multiple accounts with intelligent search filters improves UX and efficiency.
- **Centralised data management & enhanced usability**
Accessing multiple accounts through a single interface can eliminate the need to actively manage different log-ins for each account. From a user experience perspective, this means that clients become comfortable with a single but strong authentication process and achieve a higher level of technical familiarity with the interface.
- **Peer-to-peer account transfers**
Multibanking can enable seamless transfers between accounts in a secure manner. For example, if an individual wants to move money from one current account to a 3A account at another institution, Multibanking supports fast and hassle-free payments through a single interface.
- **Tax related statements**
Financial institutions may provide ready to use electronic documents holding the information the clients need to document their financial status for tax declaration.

The structure of such a document must be standardized in a way that it may be processed automatically, i.e. each data object whose content is expected by the tax processing system must be well documented, including the exception handling. This specification processes have to be performed in close cooperation with the tax authorities and the providers of the respective software.

As there exist already printable documents for tax declarations (Steuerbescheid), the easiest way to proceed would be to add a QR code that holds all necessary data. Uploading such a document to the tax declaration software could trigger an OMR process that decodes the QR code as well as an archive process that stores the document as attachment to the electronic tax declaration.

2.3 Concerns about Multibanking

As always when entering new territory, all the positive chances are also accompanied by some challenges. Multibanking in particular raises questions on the *loss of client interface* (less client touchpoint means less opportunity to understand the client and upsell/cross sell) and the *loss of business opportunities* (someone else makes better offers because they have a more comprehensive client view).

Loss of client interface

What if the financial institution no longer has exclusive control over the touchpoints that a client can use? Then, basically three scenarios are possible:

- The client remains with the means he is used to, comparable to a bird that keeps on staying in a cage even though its door is opened.
- The client tries out the new possibilities, but in the end returns like a boomerang to what he has learned to handle.
- The client sets off for new shores by searching for another solution until he finds something more suitable than what he's got at start.

It is largely up to each individual bank and its offerings which of these approaches its clients prefer. However, it also takes time for the mindset in the banks to adapt to the new situation. Therefore, As a consequence, discussions and decisions on this topic must start as early as possible after participation is clear.

Loss of business opportunities

In a way, this is the other side of the coin with regard to the potential loss of client interface: If a client has access to his account data while being at a session at another FI, this FI might use this data to build his own offerings upon.

Although from a general point of view, this is an understandable concern, it cannot serve as a justification for not participating in multibanking, as the goal must be to attract and retain clients with solely offerings that best possible suit their needs. This must also apply to scenarios in which increased fluctuation is to be expected.

In the end, not participating in multibanking is nothing more than a signal to clients that the provider in question is not willing to offer its clients the best possible service.

2.4 Other relevant aspects

After the strategic decision to join the Multibanking community is made, operational hurdles need to be identified and jumped over, e.g. legal and compliance issues, data protection, data security, just to name a few. Chapter [4. Key Issues & Recommendations](#) is dedicated to identify these hurdles and how they can be overcome.

3. Implementation Options

3.1 Introduction

As outlined in the first chapter, Multibanking requires the aggregation of one or more third-party bank accounts at a uniform user interface provided by at least one of the participating banks. This requires each aggregating bank to be able to interface with the other banks.

From a business perspective, two options can be distinguished:¹⁴ Interaction can take place either by establishing direct connections to each bank (“Peer-to-Peer”) or by establishing a connection to a centralized hub that allows data to be exchanged in a standardised way from a number of banks simultaneously.

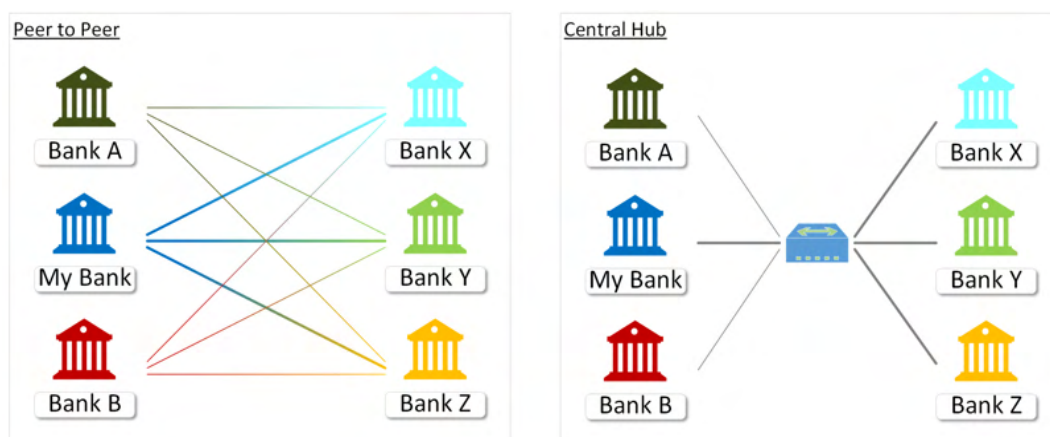


Figure 3: Peer to Peer vs. Central Hub

If the security layer is added to the considerations, the number of implementation approaches rises to three:

- **Fully decentralized (peer-to-peer)**
Each bank directly interacts with any other bank, including the Governance & Compliance layer.
- **Fully centralized (central hub)**
Governance, Compliance and Operational Layer are all centralized (e.g. bLink).
- **Hybrid**
Governance & Compliance layer is centralized, but operational layer remains decentralised (e.g. OpenBanking UK, PSD2).

In the following sections, these three options are examined in more detail, followed by a recommendation for the implementation of an initial multibanking offering.

¹⁴ EBICS-based multibanking is not suitable for the retail segment, see Appendix, [A.5 Multibanking via EBICS](#)

3.2 Option 1: Peer-to-Peer

With this option, any of the n FIs participating in a Multibanking ecosystem has to implement connectivity to services at $n-1$ other FIs. The use of standardized APIs makes such a multi point scenario easier to handle, at least from a purely technical point of view.

But other aspects must also be considered, such as multiple implementations of consent management. In addition, there is the contractual view. Here, things may also be standardized, but the efforts for the L&C departments involved will rise with the number of 3rd party banks to cover.

In this scenario, the client's requirements may be completely covered by the bank's e-banking environment. This 1:1 connection of client and bank is supplemented with Multibanking functionalities by connecting third-party banks on the bank's side and thus offering the e-banking extended services.

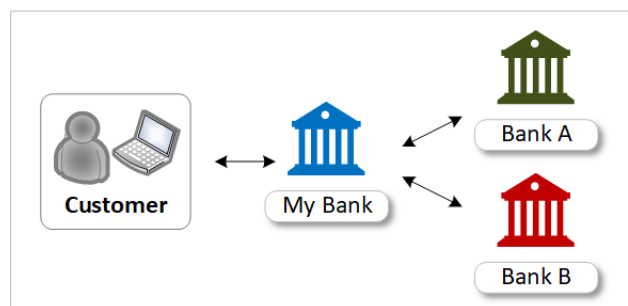


Figure 4: Peer to peer approach

To build up a Multibanking offer a bank needs to establish a connection per third party bank from which it wants to receive data from. Therefore, in this scenario, each participating financial institution has to manage the complete stack necessary for bringing multibanking to life, i.e. technical integration, consent management and other L&C topics and contractual issues.

3.3 Option 2: Centralized Platform

Here, a central platform mediates between participating entities. Communication with the bank is always via the platform, and it can offer additional features in the process.

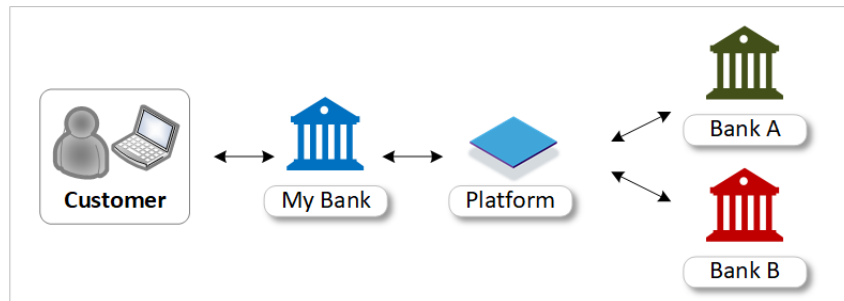


Figure 5: Platform approach

Each bank now only needs to build up only one connection, with the hub. This central hub can then offer additional services to decrease the complexity of multiple point-to-point connections and improve scalability.

3.4 Option 3: Hybrid

In this scenario, a Public Key Infrastructure (PKI) facilitates the secure electronic transfer of information within the network. The PKI confirms the identity of the involved parties and validates the information being transferred.

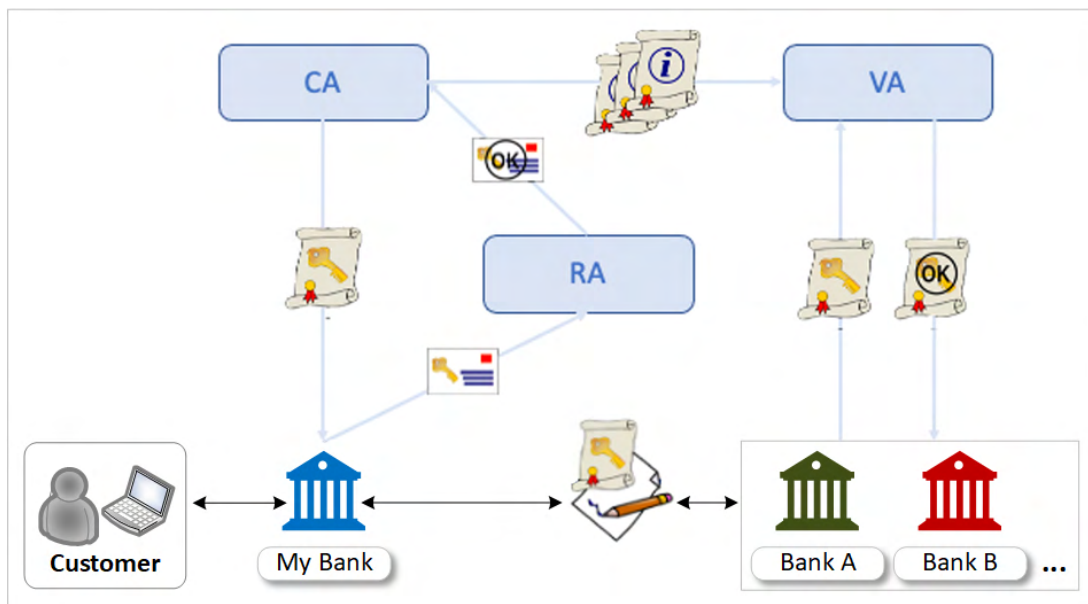


Figure 6: Hybrid approach

The PKI provides the needed "trust services" in the network. Trust service objectives respect one or more of the following capabilities: Confidentiality, Integrity and Authenticity (CIA).

The PKI consists of:

- A certificate authority (CA) that stores, issues and signs the digital certificates;
- A registration authority (RA) which verifies the identity of entities requesting their digital certificates to be stored at the CA;
- Validation Authority (VA): A service that enables real-time verification of certificates;
- A central directory—i.e., a secure location in which keys are stored and indexed;
- A certificate management system managing things like the access to stored certificates or the delivery of the certificates to be issued;
- A certificate policy stating the PKI's requirements concerning its procedures. Its purpose is to allow outsiders to analyze the PKI's trustworthiness.

The PKI needs to be defined and set up by the network participants. To build up a Multibanking offer using the PKI a bank still needs to establish a connection per third party bank from which it wants to receive data from.

While this option is technically feasible it requires investments and maintenance for building up and providing the required services (Certificate Authority, Registration Authority and Validation Authority). In the EU, such an infrastructure is in place, but these services are mandated by PSD2 regulation and provided partly by government authorities. In Switzerland these services would have to be provided by market participants.

Currently there is no group of market participants that indicated to be interested in offering all services required for this Hybrid Option. Therefore this option is deemed not feasible for the scope of this paper.

3.5 bLink as preferred Platform

As described in detail in Appendix, [A3 Survey Results](#), the vast majority of FIs participating in the Common API working group at SFTI opted for the platform approach with bLink as the concrete solution.

A few remaining FIs have not taken a position on this issue. But none of the banks involved has expressed a preference for the peer-to-peer approach. Therefore, only the platform approach as implemented by SIX bLink is described in more detail below.¹⁵

3.5.1 Overview

In May 2020, SIX launched initial services via bLink¹⁶ together with large Swiss banks and a first FinTech. This platform offers service providers (who expose data) and service users (who consume data) an infrastructure to connect participants via standardized application programming interfaces (APIs) to bring efficiency and convenience to its users.

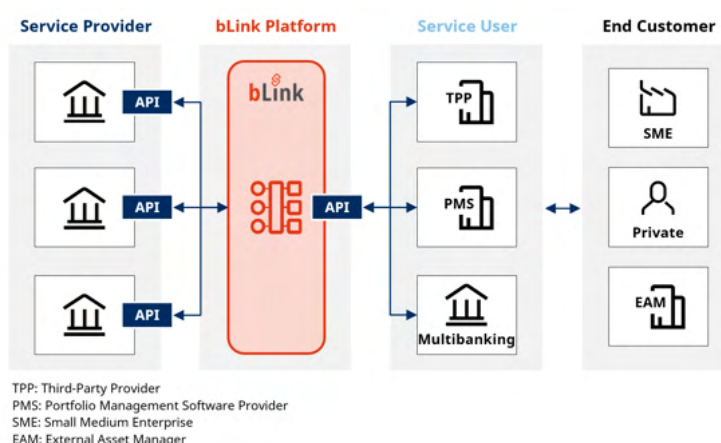


Figure 7: bLink Overview

In regard to the scalability of Open Banking services, this is achieved through the use of four core elements:

- 1) Operationalization of **standardized APIs** by using off-the-shelf Common APIs provided by SFTI.
- 2) A **standardized admission test** (“Due Diligence”) as a prerequisite to become a platform participant. This leads to an ecosystem of trusted participants where individual parties no longer need to evaluate each counterparty.
- 3) A **legal framework** which clarifies all legal matters on the platform. This uniform contract with SIX bLink as sole counterparty, prevents the need for bilateral agreements for every connection between two participants.

¹⁵ Please note that the contractual and technical details of setting up a business relationship with SIX for the use of bLink are not addressed here. Please contact this provider directly for such information.

¹⁶ For details, see <https://www.six-group.com/de/products-services/banking-services/blink.html>

- 4) A **unified implementation** of "Consent API" and "Consent Flow" that enables a consistent user experience across all banks.

The before mentioned core elements present essential components with which economies of scale can be realised. Therefore bLink provides an interesting opportunity to act as a central hub for Multibanking in Switzerland.

The pricing model on the bLink platform is subscription-based per application. Hence, the pricing is independent of the number of API calls. Besides the subscription fee, there is a general platform participation fee per month.¹⁷

3.5.2 Advantages

The implementation of multibanking via the bLink platform provides several advantages:

- *Readiness of the solution*
The bLink platform is already live and tested with previous use cases.
- *Trusted infrastructure provider*
bLink is operated by SIX, which is a trusted and established infrastructure provider.
- *Core banking system independent*
The bLink platform is independent of the underlying core banking system.
- *Scalability*
Having to establish a single connection towards bLink and potentially gaining access to all other participants which are also connected to the platform is one major advantage of bLink.
- *Standardized admission criterias*
Such criterias increase the security for all platform members, especially as they were developed in cooperation with bank's L&C specialists.
- *Uniform contractual framework*
This framework reduces effort compared to individual contracts between all parties.
- *Digital consent management*
bLink reliably ensures that the client's consent is in place when data is exchanged. This solution is already relied upon by major players in the Swiss financial sector.
- *Adherence to intl. messaging standards*
The data model underlying bLink's API-based services is compliant with the Swiss variant of the ISO20022 message standard.¹⁸

3.5.3 Limitations

Establishing a connection via the bLink platform is related to the following limitations:

¹⁷ For details, see Appendix, [A4 Excursus on bLink pricing](#)

¹⁸ For details, see <https://www.six-group.com/en/products-services/banking-services/standardization/iso-payments.html>

- *Adherence to intl. API standards*

The implementation of the multibanking approach via bLink does not per se mean that the APIs used there are interoperable with those APIs that have emerged from PSD2, e.g. the NextGenPSD2-Spec by The Berlin Group.¹⁹

The analogy applies to the consent management implemented by bLink, as it is not interoperable with informal pseudo-standards such as that of the Berlin Group.

- *International interoperability*

bLink is currently focussed on the Swiss market, therefore, financial institutions who want to provide data on a European or even global scale, additional interfaces need to be exposed in a different way for the time being.

3.5.4 Dependencies

An initial implementation via bLink does not prevent financial institutions from future peer-to-peer connections.

However, after leaving the bLink platform, consent management has then to be implemented separately for each FI to be interacted with. There is also no way for an FI that does not join bLink to establish unified consent management with the bLink banks.

¹⁹ However, the underlying data and object models are identical in both cases because they are both based on the ISO20022 message standard. This circumstance and the fact that AIS and PIS services are not particularly complex mean that only a limited amount of additional work would be required if the Berlin Group API is to be implemented in addition to the bLink API. Moreover, in addition to the Berlin Group API specification, a significant number of individual implementations also exist within the jurisdiction of PSD2. This is simply because PSD2 itself does not specify any technical implementation rules. Consequently, the Berlin Group's standardization recommendations are only one possible way to comply with PSD2.

4. Key Issues & Recommendations

This chapter provides an overview of the fields of activity affected by Multibanking decisions, as well as an exploration of the related key issues.

Key Topic	Subpoints
Business	<ul style="list-style-type: none"> • Multibanking related business strategy • Impact on product management
Legal & Compliance	<ul style="list-style-type: none"> • Due Diligence of counterparties • Audit rights / audit trails • Compliance with data privacy / Client Consent • Banking secrecy law • Liability
Technical	<ul style="list-style-type: none"> • High-Level IT Architecture required for Open APIs • Consent Management /Revoke of Consent • User Interface for Multibanking View (Basics)
Security	<ul style="list-style-type: none"> • Encryption • Authentication of counterparties • End-User-Authentication • Consent Management (Technical View)

Organizational Units affected

In order to best possibly prepare the bank organization, it is recommended to involve the following organizational units in the evaluation and decision process.

- Channel Management (Topic: Business Services)
- Corporate Communication (Topics: Communication)
- Corporate Development (Topics: Business Services, Strategy, Communication)
- Data Analytics (Topic: Data Protection)
- Executive Board (Topic: Strategy)
- Identity & Access Management (Topic: API Security)
- Information & IT security (Topic: Data Protection)
- IT Architecture (Topic: API Security)
- IT Risk Management (Topic: Data Protection)
- Legal & Compliance (Topic: Data Protection, API Security)
- Marketing (Topics: Communication)
- Operations/Support (Topic: Business Services)
- Outsourcing Management (Topic: Data Protection)
- Product Management (Topic: Business Services)
- Segment Heads (Topic: Strategy)

Note: Based on the preferences outlined in the previous chapter and in order to provide the most targeted guidance, all information in this chapter is tailored to the platform-based approach and the fact that bLink takes the place of this platform.

4.1 Business related Issues

4.1.1 Decision to join “Initial Multibanking Proposition”

Solely read-only services will be made available by the upcoming MVP. This approach allows verifiably (cf SFTI’s Multibanking white paper) to already fulfill elementary requirements of retail clients, like for example a holistic account overview, without the interface to the client being open to discussion.²⁰

Any bank interested in participating in multibanking services must clarify the following points internally:

- Assure that there is a common understanding whether or not the solution shall be open to all (i.e. not only banks)
- Agree on the bank’s classification of multibanking services, e.g. as cost case, commodity, differentiator
- Achieve consent about the constraints (if any) which are set regarding the functional features
- Assign of the role of service user/TPP to the banks itself or to a third party as cooperation partner
- Design the functionality in consideration of third parties (e.g. authorised lawyer, trustee, ...)
- The steps to be taken to achieve the qualitative and quantitative objectives (including timing and resource requirements)
- Identify all the responsible decision makers on the above mentioned topics to be involved

Recommended action:

- Setup suitable surveys to determine the relevance of multibanking for the bank’s retail clients.
- Perform an analysis (e.g. SWOT from a business perspective) to determine what the priority of multibanking is compared to other digitization projects already running or in planning.

4.1.2 Freedom of choice to share data

A key requirement for this Multibanking Proposition to work, is that the participating bank does not solely participate as a consumer of data but also exposes APIs which allows other parties to query data of the bank.

Whilst the client data is owned by the client itself, the banks have the liberty of choosing to offer modern infrastructure and interfaces like APIs, and therefore enabling other parties to access the clients data. In Switzerland, unlike in the European Union with the PSD2 regulation, there is no regulatory obligation to expose APIs to others. Therefore, each bank can decide who they provide access to.

²⁰ Other aspects may also be involved here, such as the availability of banking services across all participating banks or the definition of generic processing times (when can I fetch the data).

This could lead to the idea that a bank may opt for a strategy to only act as a consumer, while not providing its own interfaces for others to receive data. However, this strategy is likely not to work. For example, with bLink a bank can assume both sides of the AIS APIs. The bank can act as a Service Provider and can therefore provide the APIs for others to obtain the account information and at the same time be a Service User consuming account information from other Service Providers. Each Service Provider has the option to not answer data queries (API calls) from other participants (i.e. blacklisting). Hence, should a bank choose to only consume data without providing any data of their own, the bank will likely be blacklisted by Service Providers, and therefore lose access as a Service User, if they are not acting as a Service Provider at the same time.

Multibanking is a key functionality enabled by Open Banking and Open Finance. This indicates that parties interested in the benefits and opportunities arising through Multibanking should also adopt a strategy towards openness/opening up its interfaces.

Note: Starting in 2022 bLink is implementing a functionality which allows a participant of bLink to configure custom routing instructions in the platform to effectively block API Calls from being answered for certain specifically determined participants.

Recommended action:

- Understand the role of Service Provider and Service User in Open Finance ecosystems, use the bLink platform as reference
- Consult bLink's Participation Agreement for appropriate measures
- Integrate the discussion of openness and the rights of the participants to blacklist in the internal discussions with Strategy and Business

4.1.3 Data use for own purposes

With the participation in the Initial Multibanking Proposition the bank as Service User (consumer of the data) will be able to gain access to previously inaccessible data from their clients. This poses a novel situation to the participants. With this, the question arises to what extent the bank aggregating the data is allowed to use this potential additional insights about the client (e.g. his additional assets).

There are two relevant aspects to consider when being confronted with this question. On one hand, the usage possibilities of the data is determined by the scope of the consent provided by the client. This consent is typically agreed upon between the Service Providing bank and the client. On the other hand, the Service Provider and the Service User might engage in additional contractual agreements which might restrict the use of the data. With regards to bLink, the Appendix 2 contains such specific agreements between Service Providers and Service Users. The bLink agreement regarding account information states that the Service User is limited to a "Use Restriction" which is laid out in the Appendix 2, 2 "Use Restriction". The agreement states that the Service User may use the data to aggregate and display this data (e.g. in a Multibanking front end application) to the client.

However, the Service User is not permitted to analyze the data for his/her own purposes or the purposes of third parties. This means, for example, that the bank acting as Service User might provide an aggregated data view to the client and generate insights directly for the client. The current bLink contract however, prohibits the analysis of the aggregated data for the banks own or third-party purposes like a client advisors dashboard for lead generation.

Note that SIX made the decision to implement the wording as it can be found in the current version of the Appendix 2 due to the fact that it was introducing a solution into a market that was operating in an environment where banks were not use to the approach of Open Banking and the sharing of data among banks. As the market develops and participants adopt a more Open Strategy SIX may choose to revisit the wording and adapt accordingly.

Recommended action:

- Understand the „Use Restrictions“ of data shared through the bLink platform, it is recommended to consult the respective bLink contracts
- Integrate these insights into the business case

4.2 Legal & Compliance related Issues

As already mentioned at the beginning of this chapter, also the following remarks are specific to the chosen bLink approach. Further in-depth investigations, independent of the chosen model, are currently being conducted in a joint project of #FinTank FHNW and Swiss Fintech Innovations.²¹ General information on topics such as Anti-Money Laundering (AML), Financial Market Infrastructure Act (FinMIA), FinSA, FinIA, FinSO, and other L&C-related topics can be derived from SFTI's White Paper on API Security.

4.2.1 Due Diligence of counterparties

In the run-up to the considerations on counterparty due diligence, it is useful to distinguish two different perspectives on data ownership:

- In the traditional model, the client retains ownership of its assets managed by the FI, but the FI has full control over the use of its clients' data. This means that the client's assets and the data representing them are treated differently: The FI is obliged to provide its clients with access to their assets at any time agreed. The data, as the tools that the FIs need or generate to provide their services, remain under the sovereignty of the respective FI.
- In recent years, the view has begun to gain acceptance among some of the players in the financial center that the client of an FI is not only entitled to the assets that the FI manages on its behalf. Clients should also be able to dispose of the data generated in the process without restriction. Developments moving in the direction of this scenario can be observed worldwide.

This introduces a significantly different view of liability issues: if a client authorizes a third party to access its financial data at an FI, then that FI no longer has control over what happens to said data. As a consequence, the FI can no longer provide appropriate safety guarantees when TPPs unknown to the FI interact with the client('s data).

From a purely legal point of view, it may be a conceivable scenario that the FI's client has complete autonomy over the data generated in the management of his assets. However, given the wide range of threat scenarios posed by all kinds of cybercrime, it is foreseeable that even well-informed clients will not always be able to readily detect such an attack on their data and take appropriate countermeasures.

Therefore, and as part of its duty of care to its clients, the FI may conduct a due diligence audit²² of TPPs. In the interests of the most economical approach possible, this review can also be carried out on a cross-bank basis.

This is exactly the approach that bLink follows. When connected to this platform, FIs benefit from the fact that the audit process is already in place. Moreover, at the time of writing this Key Issues Paper (mid 2021), the AG Open Banking at SBA plans to publish a dedicated document covering this topic in detail.

²¹ For details, see <https://swissfintechinnovations.ch/projects/collaboration-models>

²² When it comes to designing such a counterparty due diligence, a distinction must be made between regulated (e.g. banks) and non-regulated entities (e.g. TPPs): In-depth audits may not be necessary for regulated entities, but for non-FIs as TPPs, an adequate counterparty due diligence must be performed.

4.2.2 bLink's standardized admission process

During the onboarding process to bLink each participant goes through a bLink admission process. Various requirements are checked in the process, depending on the type of participant, its role (Service User/Service Provider) and the scope of the applications to be used (AIS, PSS, etc).²³ In addition, bLink performs a yearly reassessment of the admission for all participants to ensure the requirements are still fulfilled.

Banks that are regulated as Swiss Banks as defined in *Swiss Federal Act on Banks and Savings Banks, Article 1* undergo a simplified version of the admission process as they already have to comply with the FINMA circular *2008/21 Operational Risks*. This does not apply to "small banks" defined in *FINMA Circular 2008, note 117*.

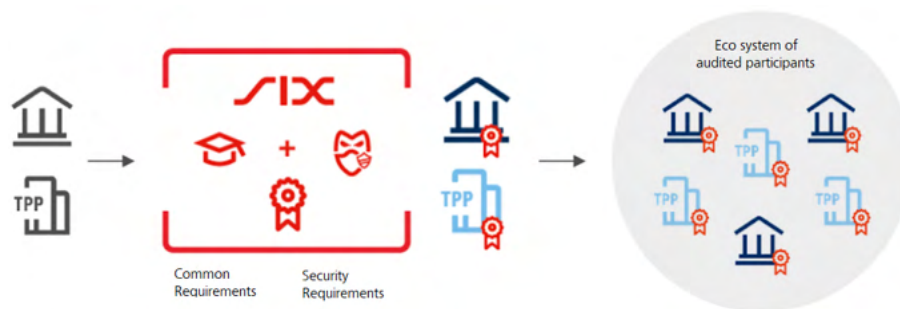


Figure 8: Due diligence on bLink

Recommended action:

- Deep Dive into the bLink contract to understand the rights and obligations around the admission process
- Understand the criteria checked during the bLink Admission process
- Engage in a conversation with Legal & Compliance
 - to understand current guidance & policies with regard to exchanging data with third parties (regulated & unregulated)
 - Discuss requirements to due diligence coming from potential introduction of Initial Multibanking Proposition
 - Provide explanation on bLink admission process to support swift approval process of Legal & Compliance during implementing Initial Multibanking Proposition.

²³ Detailed information can be found in Appendix 1 of the bLink contract

4.2.3 Compliance with data privacy

The legal basis for data privacy in Switzerland is the “Datenschutzgesetz” (DSG). Hereafter, this paper analyses how a bank offering an Initial Multibanking Proposition can ensure compliance with the following key requirements of the DSG.

Before a bank is able to share data with another party like a consuming bank or a third-party provider, the Service Providing Bank needs to obtain an explicit consent from the client, where the scope of the consent is included as well as information on how the accessed data will be used. By implementing bLink’s consent mechanism (aka Consent 2.0), the bank ensures compliance with obtaining explicit consent from its clients. Furthermore, through signing the bLink contract, each platform participant is committed to complying with the relevant data protection laws.

4.2.4 Aspects on Transparency

With regard to transparency about the consent given and the right of withdrawal, the following should be noted:

After the client has given the consent, it should have the ability to understand what parties apart from the Service Provider itself have access to the client’s data. Furthermore, the client must have the option to revoke the given consent.

The Service Provider needs to be able to provide this information to the client. This means that the Service Provider has to build or implement some kind of overview of the consents given by the client regarding the client's data at the bank.

Ultimately, this is a list of all the Service Users²⁴ which the client has given consent to so that these Services Users may receive the data specified in the scope of the consent provided by the client. In such a list, the function for the revocation of the consent could be added.

Recommended action:

- Study the examples of how client provides consent
- Ensure good understanding of the the client facing side of the Consent Flow as well as the technical side of the Consent 2.0 Flow
- Engage with Legal & Compliance and
 - Provide them with the scope and objective of the Initial Multibanking Proposition
 - Provide them with the bLink contract
 - Formulating the specific wording for when client is providing consent and for consent revocation
- Engage with responsible for e-banking to discuss options for implementing the required functionality (User Interfaces) for providing Consent as well as the Overview of the Consents and the functionality to revoke

²⁴ Service users are typically the TPPs who access the client's account to perform actions on their behalf.

4.2.5 Banking secrecy law

Due to the fact that the client data of Swiss banking clients will be shared among banks within the Initial Multibanking Proposition the banking secrecy law applies, in addition to the previously mentioned data privacy law (see section [4.2.3](#)).

To ensure the adherence to said law, each participant enters a contractual relationship with SIX as the platform provider through the bLink contract. In the scope of this paper the Service User is always a bank. Therefore, the bank under FINMA license needs to treat the received client data from other banks with the same diligence as the bank's own client data.

By responding to the API call of a Service User the Service Provider implicitly establishes a binding contract between the two parties.²⁵ The type of API call or the type of data and/or services exchanged through the API determine the details of this contract. This contract does not need to be signed explicitly, as the conditions for this contract have already been agreed upon when signing the general bLink contract.

Recommended action:

- Carefully study the contractual details that govern the relationship between Service User and Service Provider.

²⁵ The specific details of the different contract terms can be found in the Appendix 2 of the bLink contract (e.g. "Appendix 2, Account Information Service (AIS) for Accounting Tools and...").

4.3 Technical related Issues

4.3.1 High-Level IT Architecture

From a high level IT architecture perspective, and no matter whether or not a platform like bLink is involved, there are two main building blocks to be distinguished: The management of business APIs and the management of Service Security.

Management of Business APIs

The process of creating, exposing and managing business services via APIs is essential for the participation in any Open Banking or Open Finance ecosystem.

Whether it is a matter of directly connecting a TPP at a bank or integrating a bank into an open finance ecosystem: A basic requirement in either case is the provision of API-based services that are driven by standards that are as broadly supported as possible.

By its very nature, bLink, as a platform dedicated to data blindness, has not implemented its own business logic. As a result and from a pure business services perspective (i.e. without adding the security layer to the considerations), it is transparent whether a TPP connects via bLink or directly to your FI.

So as soon as the business APIs that are required anyway are in place, joining the bLink platform does not cause any significant additional effort on the technical side

Management of Service Security

Service security management is an area of action where joining bLink makes a significant difference. This is one of the elementary topics where the efficiency gains of platform participation come into play.

This is because on the security side, joining bLink provides the implementation of a unified mechanism named *Consent 2.0* that mitigates potential differences in the details of security implementations between participants. The overall level of security is not negatively affected by this.

On the other hand, the direct connection of third parties would lead to recurring IT expenses that would already be incurred from the second TPP onwards. In contrast to this, the additional effort required to connect additional TPPs via bLink is negligible.

Recommended action:

- When starting to develop the APIs that are necessary to fulfill your strategy on Open Banking/Open Finance, be assured that the underlying technical specifications adhere to a standard that is well adopted at the Swiss financial centre.
- To this end, it is advisable to check what recommendations exist on the part of bLink. Based on experience and due to the close, constructive cooperation between SIX and SFTI, these will typically be the banking API specifications hosted by SFTI. These specifications are broadly aligned in the banking center, available free of charge, and change management is also handled.

- Taking these recommendations into account, the resulting API-based services will be ready for both bLink and direct TPP connectivity.

4.3.2 Release Management

The simplest way to implement a smart release management process is to use standardized specifications with the highest possible degree of adoption. Since a higher number of users always positively determines the outcome of standardization efforts, this is also the way to achieve the best possible quality. Furthermore, through broad coordination implementations of company-specific peculiarities (which are often not accompanied by any proven added value) are avoided best possible.

As already outlined in the Introduction, SFTI's Common API Working Group is currently the body in which by far the largest number of banks are working together on the creation and release management of API specifications in the Swiss financial center. All the above advantages are present there, and also bLinks API implementations are based on SFTI's API specs.

Recommended action:

- Due to its good branch coverage, it is highly recommended to adopt the API specs of SFTI's common API working group.
- By following this strategy, the release management of the provided APIs is already covered. So the internal efforts of the participating FI are minimized.

4.4 Security related Issues

4.4.1 Client centric API Security

Currently, online access to a bank account at any Swiss bank requires a specific two-factor authentication. In terms of optimized UX, this is not a sensible approach for Multibanking services, because a critical success factor for the establishment of Multibanking is the minimisation of complexity in cross-FI data access: The use of Multibanking must not present any significant additional hurdles compared to traditional e- or mobile banking. Otherwise, it will not find broad acceptance among clients. Therefore, a complementary management solution for cross-bank access to account information is necessary.²⁶

Here, the design of the client centric security elements is of high importance. To see how the client centric security in the field of Multibanking might be addressed, first let's take the high-level perspective on this topic. Let's assume that a client is maintaining bank accounts at three different FIs, and that there are other FIs present as well:

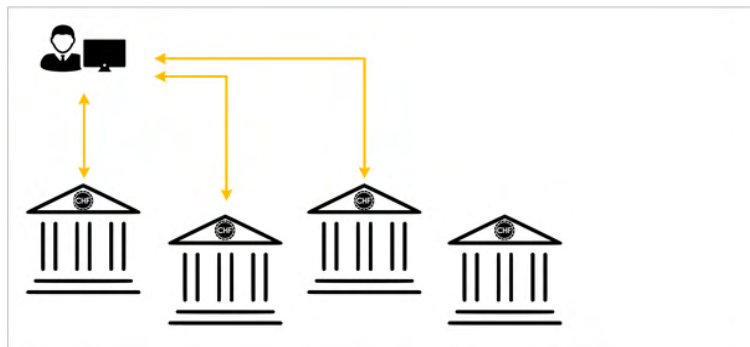


Figure 9: Access multiple Accounts

Let's further assume that all FIs shown here are connected through an appropriate backend infrastructure:

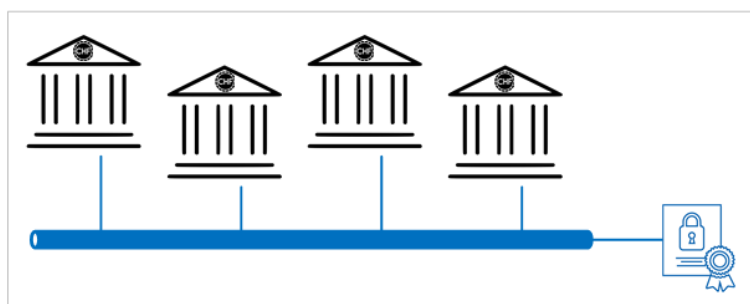


Figure 10: Central Consent Management

This platform is designed to provide certain common security services that allow participating FIs to interact on behalf of their respective clients. But this infrastructure still does not possess the means to identify individual clients across several FIs. This task has to be done by the client, and the tools for it have to be provided by the FIs.

²⁶ The topic of consent management is central for this proposition. The aim should be to define a standard that all participants can agree on and which is also future proof, meaning such a standard should not be valid just for the PoC.

So one ends up at a scenario where a client once has to inform each of his FIs about all the other accounts (consent flow).

This is achieved by starting a UI session at any of his account-holding banks. First, the client identifies himself securely with this bank using 2FA. Then he provides selected information about all of his other bank accounts.

To do so, he first selects the relevant banks (this step is necessary as long as not all FIs are Multibanking-capable). Then, he enters his IBAN(s) at the destination banks.

The FI with which the client is logged on then transmits the information securely to the target banks. Finally, the client has to perform a 2FA login at each of his FIs to commit the request for linking his account to the other ones.

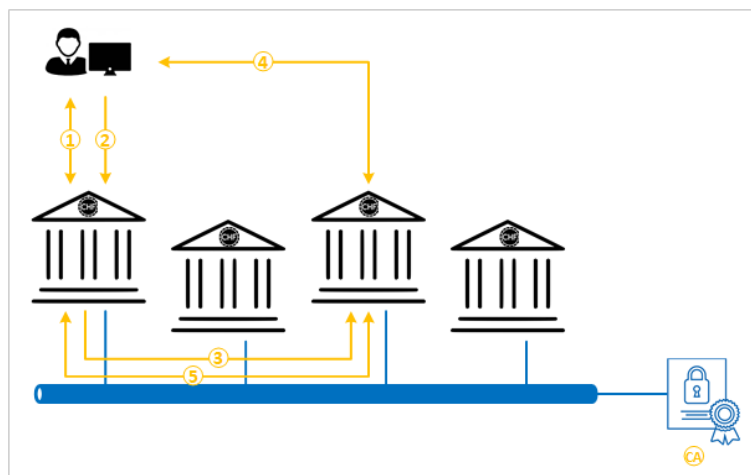


Figure 11: Initializing Multibanking

These steps must be gone through:

1. Two factor authentication (2FA) at bank A
2. Declaration of the account data at the destination banks (only IBAN, no security credentials)
3. Transmission of the account data to the destination bank (IBAN, client name)
4. Login with 2FA at destination bank & confirmation of the request from bank A
5. Exchange of the security tokens (symmetrical trust relationship)
6. Centralised certification body (Management of the security tokens)

Regarding SCA/2FA, The following aspects should also be taken into account:

The consent flow should be as follows:

- perform onboarding via redirect-flow consent-flow (oauth2-based)
- login on 3rd-party-bank with ebanking (or similar) credentials
- type 2FA
- give consent
- get back to sourcing system

Consideration should be given to either adhering to the upcoming international F-API standard as described in the corresponding SFTI whitepaper, or to the SIX Consent 2.0 Auth-Flow as already implemented on bLink.

From a mid-term perspective, it would make sense to start with F-API, as this emerging standard is beginning to steadily gain acceptance worldwide. However, from a pragmatic point of view it is more obvious to start with bLink's Consent 2.0 Auth-Flow, as it is already in use by three major banks and offers a comparable level of security.

In addition, both standards are based on the same fundamentals (OAuth2, OpenID Connect). So closing the gap with regard to these two implementation variants should not be a major problem in due course.

4.4.2 Other Security related Aspects

For considerations on other security-related aspects such as data encryption, counterparty and end-user authentication, and consent management from a technical perspective, please refer to the respective SFTI white papers on API Security and Multibanking.

Since these points have already been adequately addressed by the conditions associated with the preference for the bLink platform, they will not be discussed again here.

4.5 Data protection

A fundamental novelty of multibanking is the fact that each participating bank gets access to client data at third-party banks. A binding code of conduct on data protection must be drawn up and introduced jointly. The aim is to determine whether, and if so to what extent, a bank may carry out evaluations of client data from third-party banks (purpose limitation).²⁷

Any bank interested in participating in multibanking services must first clarify the following questions internally:

- What are the minimum entry criteria that must be met for Multibanking to be possible?
- Where are the limits of data analytics²⁸
- Who are the responsible decision makers on this topic to be involved?
- Which processes and guidelines must be adhered to?
- Are there any aspects to be addressed jointly by all participating FIs?
- Are there any aspects to be clarified with regulatory institutions?
- What implementation efforts are expected on the legal and technical side?

In this statement of work, the handling of data regarding to be AML compliant should be discussed and defined with all participating banks.

²⁷ This is a very comprehensive topic and would require an in-depth analysis by a law firm specialising in the subject.

²⁸ Or more generally: Is the multibanking FI allowed to analyse the data received from other integrated FIs without further notice? Most likely not, as the data received is only for the client, who must decide whether it may be aggregated, etc.

In general, there are different legal aspects to the topic of multi- or open banking, depending on the concrete design/constellation, which would have to be taken into account from the perspective of a financial institution and analyzed in detail in advance, prima vista (not conclusive):

- Data protection and data security (in the relationship between bank and client as well as bank service provider), preservation of bank client confidentiality - certainly as a central part
- Regulatory aspects (if applicable, regulatory requirements, FIDLEG, licensing requirements, outsourcing relevance, etc.)
- Contractual framework / fundamentals (bank-client, bank-service provider)

Preconditions for participation in multibanking are that the client has consented after being transparently informed and that he can withdraw at any time.

Regarding the client perspective, two important aspects have to be addressed:

- Data protection perspective
- Bank client confidentiality

The following points must be taken into account during implementation:

- Shall/must the client release the bank from banking secrecy towards other participating banks, and towards the centralized hub as well, if such a player is in place? Otherwise, the participating banks may set up a separate company to collect the data, but the latter is of no added value if data end up in e-banking anyway
- Important regarding "informed consent": Consent is only valid if it is clear to the client what will happen.
- Regarding GTCs: If a provision is classified as "unusual provision", it is not valid according to "unusual provision rule".

Challenges to be taken into account:

- Data analysis with opt-in can no longer be carried out after a blanket opt-out, even if it was previously permitted according to "legitimate interest".
- How far does the banks' duty to inform go: "Client releases bank A from banking secrecy vis-à-vis notification to bank B"?

4.6 Corporate Communications

As new ground is being broken with API-based Multibanking services, special care must be taken to ensure that the bank's corporate communication is well aware that questions regarding its positioning towards Open Banking will be a new core topic from now on.

To be prepared, concepts for answers to the following questions should be in place:

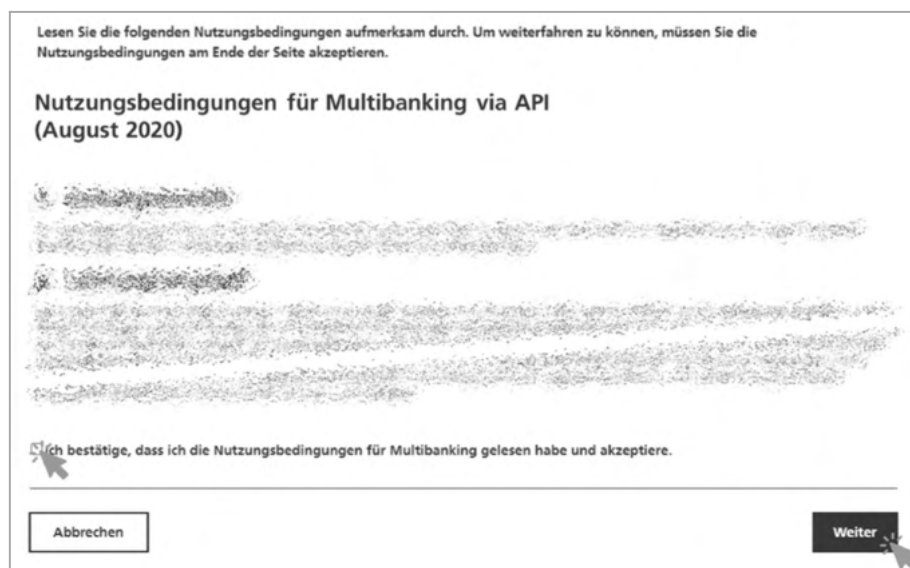
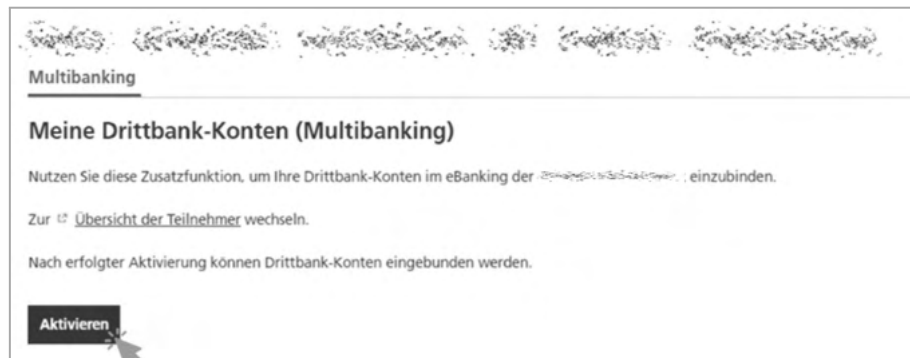
- *What we are doing?*
A fact sheet holding brief descriptions of any multibanking service should be prepared
- *Why are we doing it?*
The FI's motivation should also be well documented, embedded in the company's general communication related to its client centric service strategy
- *What implications emerge for various stakeholders?*
A detailed response to the aforementioned question is expected here
- *Who are the bank's responsible decision makers on this topic?*
Prepare the FI-internal information research so that you always know from which responsible unit you can obtain the necessary information at any given time.
- Other company-internal questions to be clarified may be:
 - What are the company-internal input channels for news to be communicated?
 - By which means is assured that the communication is level-appropriate (e.g., communication guidelines)?
 - What are the company's preferred target audiences (e.g., media companies)?
 - Which are the appropriate media for internally/externally communication?
 - How is accompanying communication with official agencies ensured (e.g. SBA and SIF)?

5. Examples of Multibanking User Interfaces

5.1 Essential Multibanking User Interface

This section contains a set of screenshots of an multibanking user interface to provide some essential services.²⁹

The following screens show the process of adding an account at a third party bank. First, the activating of multibanking itself has to be initiated:



²⁹ Please note that due to the fact that the user journey shown on the following pages is based on a real implementation, an english version is (not yet) available.

Next step is to actually add an account at a third bank:

Zusatzfunktion "Multibanking" aktiviert

Softwareanbindungen **Multibanking**

Meine Drittbank-Konten (Multibanking) ⓘ

Nutzen Sie diese Zusatzfunktion, um Ihre Drittbank-Konten im eBanking einzubinden.
Zur [Übersicht der Teilnehmer](#) wechseln.

Klicken Sie auf die gewünschte Drittbank, um neue Konten einzubinden oder bestehende Kontofreigaben zu verwalten:

Bank 1 ⓘ

Konten einbinden

Bank 2 ⓘ

Konten einbinden 

Drittbank Bank 2

Rechte auswählen Kontoinformationen einsehen Zahlungen einliefern

Bitte führen Sie die nachstehenden Schritte aus, um die gewünschten Konten Ihrer Drittbank einzubinden:

1. Klicken Sie auf «Weiter», um automatisch zur ausgewählten Drittbank weitergeleitet zu werden.
2. Melden Sie sich bei Ihrer Drittbank an und folgen Sie dem Prozess, um die gewünschte Kontofreigabe zu erstellen.
3. Überprüfen Sie, dass bei der Drittbank Ihre eBanking-Vertragsnummer (siehe oben rechts) als Benutzername angezeigt wird.
4. Schliessen Sie die Kontofreigabe bei Ihrer Drittbank ab, um automatisch zum eBanking zurück geleitet zu werden.
5. Sie sind jetzt startklar und können Ihre Drittbank-Konten im eBanking verwenden.

Bitte beachten Sie:

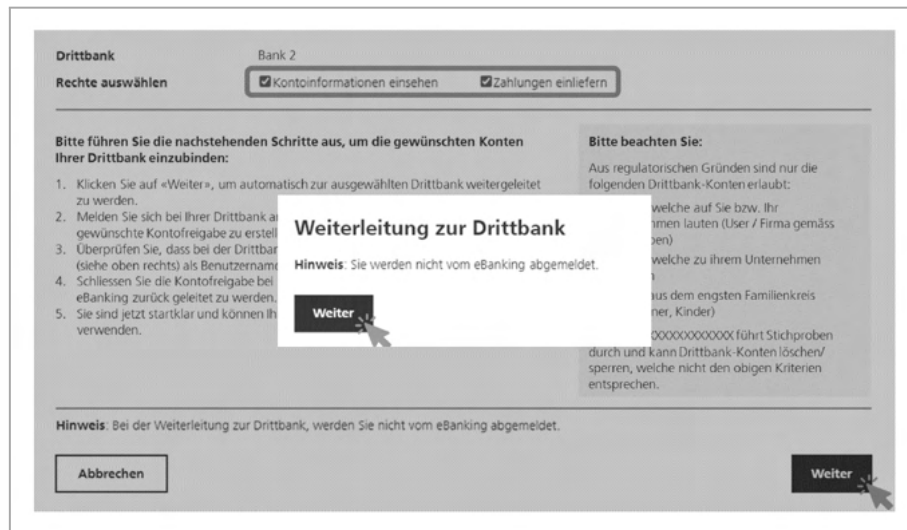
Aus regulatorischen Gründen sind nur die folgenden Drittbank-Konten erlaubt:

- Konten, welche auf Sie bzw. Ihr Unternehmen lauten (User / Firma gemäss rechts oben)
- Konten, welche zu Ihrem Unternehmen gehören
- Konten aus dem engsten Familienkreis (Ehepartner, Kinder)

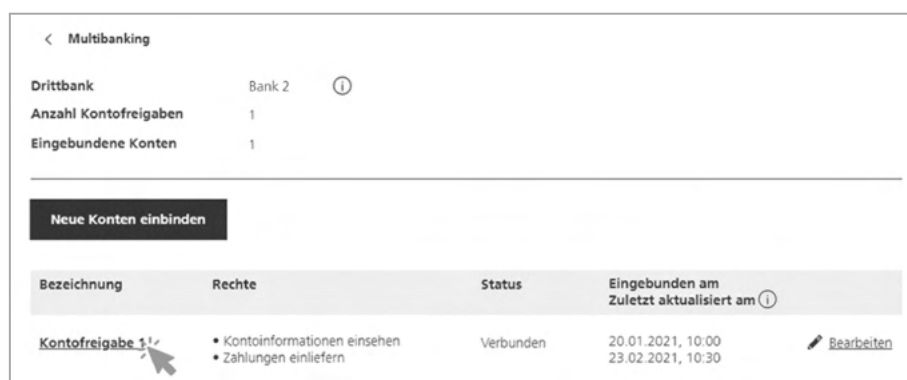
XXXXXXXXXXXXXXXXXXXX führt Stichproben durch und kann Drittbank-Konten löschen/sperrern, welche nicht den obigen Kriterien entsprechen.

Hinweis: Bei der Weiterleitung zur Drittbank, werden Sie nicht vom eBanking abgemeldet.

The confirmation of the linking is then performed at the third party bank:



After successful confirmation, the account is accessible:



< Übersicht Kontofreigaben

Drittbank Bank 2
 Bezeichnung Kontofreigabe 1 ✎
 Eingebunden durch [Redacted]

Konten und Rechte

Bezeichnung, Währung IBAN	Inhaber	Kontoinformationen	Zahlungen
Bank 2 Konto, CHF [Redacted]	[Redacted]	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Aktualisieren Löschen

✓ **Kontofreigabe erfolgreich abgeschlossen**
 Es kann einige Minuten dauern bis freigegebene Konten im eBanking ersichtlich ist und/oder Zahlungen erfasst werden können.

[Redacted] [Softwareanbindungen](#) [Multibanking](#)

Meine Drittbank-Konten (Multibanking) ⓘ

Nutzen Sie diese Zusatzfunktion, um Ihre Drittbank-Konten im eBanking einzubinden.
 Zur [Übersicht der Teilnehmer](#) wechseln.

Klicken Sie auf die gewünschte Drittbank, um neue Konten einzubinden oder bestehende Kontofreigaben zu verwalten:

Bank 1 ⓘ

Konten einbinden

Bank 2 ⓘ


1 Kontofreigabe


Visualization of multiple accounts:

Willkommen im eBanking


[Mitteilungen](#) Keine ungelesenen Mitteilungen [Zum Posteingang](#)

[Vermögen](#) Alle Inhaber CHF 44'919.59 Inhaber wechseln ▾

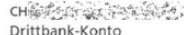
 Drittbanken CHF 9'999.00

 CHF 34'920.59

- > **Firmenkonto** ☆ CHF 33'835.91
- > **Kontokorrent Fremdwährung Firmen** ☆ EUR 987.06
CHF 1'084.68
- Drittbank-Konten** CHF 9'999.00
 - > **Bank 2 Konto** ☆ CHF 9'999.00

 **Bank 2 Konto** CHF 9'999.00 Buchung suchen >
Drittbank Übertrag >





















Saldo per 28.05.2021 00:00

CHF 
Drittbank-Konto

Konto wechseln ▾

[Kontoauszug](#) [Kontodetails](#)

Alle Monate ▾ Alle Buchungsarten ▾ Mehr Filter ▾ Letzte Aktualisierung 28.05.2021 00:00 ↓ CSV ▾

Datum	Buchungstext	Belastung CHF	Gutschrift CHF	Valuta
27.04.2021				26.04.2021
27.04.2021				26.04.2021
04.05.2021				03.05.2021
04.05.2021				03.05.2021
02.05.2021				01.05.2021
02.05.2021				01.05.2021
30.04.2021				29.04.2021
30.04.2021				29.04.2021
> 29.04.2021				28.04.2021
> 29.04.2021				28.04.2021

Transactions at other bank:

Neue Zahlung oder Dauerauftrag

Inlandzahlungen

- [Bankzahlung Inland](#) in allen Währungen
- [QR-Rechnung](#) CHF, EUR
- [Einzahlungsschein orange](#) CHF, EUR
- [Einzahlungsschein rot](#) CHF, EUR

Kontoübertrag

- [Kontoübertrag](#)
- [Drittbank Übertrag](#)
- [Fremdwährungsübertrag / Devisen- und Edelmetallhandel](#) ⓘ

Auslandzahlungen

- [Bankzahlung Ausland, SEPA](#) ⓘ

Weitere Zahlungsmöglichkeiten

- [Belegleser](#) ⓘ
- [Zahlungsvorlagen](#) ⓘ

Währung / Betrag

CHF

Zahlungszweck (Optional)

End to End ID (Optional) ⓘ

Gutschriftskonto

Belastungskonto ⓘ **Bank 2 Konto**

CHF 9'999.00
Drittbank-Konto von
Musterkunde in Testumgebung

Ausführen am

Belastungsanzeige

IBAN/Konto	CH[REDACTED]	Einzahlung für	[REDACTED]
Begünstigter	[REDACTED]		[REDACTED]
Währung/Betrag	CHF 25.00		
Belastungskonto	CH[REDACTED]		
Ausführen am	Donnerstag, 19.08.2021		
Belastungsanzeige	Keine Belastungsanzeige		

Abbrechen
Zurück
Zahlung bestätigen

< Zahlungen - Neue Zahlung

Zahlung wurde erfasst

Nächste Zahlung erfassen

Zahlung erfassen
Begünstigter (Name, IBAN, QR-IBAN oder Postkonto)

Weitere Schritte

Heute erfasste Zahlungen mit Vertrag [REDACTED]

Ausführung	Begünstigter	Belastungskonto	Whg	Betrag
19.08.2021	[REDACTED]	[REDACTED]	CHF	25.00

Total CHF 25.00

[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
[REDACTED]
Drittbank

Alle Status ▾
Alle Belastungskonten ▾
Mehr Filter ▾
Suche Zahlungen
↓ CSV

Ausführung ↑	Begünstigter	Belastungskonto	Status	Whg	Betrag
Zahlung übermittelt - Freigabe bei der Drittbank					
Heute	[REDACTED]	[REDACTED]	Übermittelt	CHF	25.00

Kontoübertrag Drittbank

Übermittelt - Auftrag wurde übermittelt

IBAN/Konto	Einzahlung für
CH [redacted]	[redacted]
Begünstigter	[redacted]
[redacted]	
Währung/Betrag	
CHF 25.00	

Belastungskonto CH [redacted]

Ausführen am Donnerstag, 19.08.2021

Belastungsanzeige Keine Belastungsanzeige

Erfasst und freigegeben durch...

19.08.2021 11:26

Erfasst durch [redacted]

5.2 Complex Multibanking User Interface

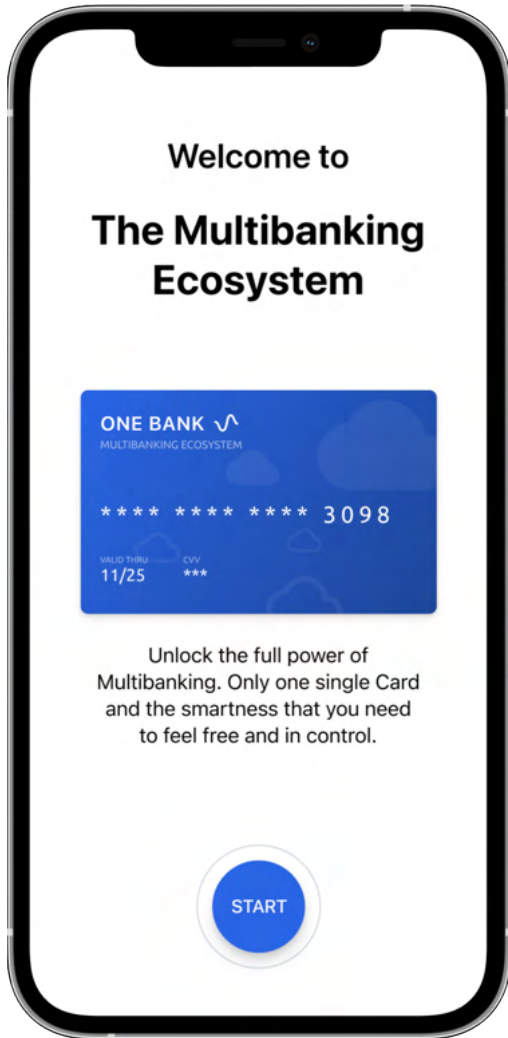
The integration of multibanking services in existing end user interfaces (e-banking as well as mobile apps) should be carefully planned. Although the present document only addresses an initial multibanking offering based on read only services (XS2A), there will surely be more to come in the future.

One way to cope with this challenge is to start with realistic sketches of possible end states. Even if services have to be taken into account for which there are currently no adequate concepts (e.g. remote payment initiation at third party banks), an approach that puts the client's perspective on the desired end state in the foreground is essential. Any bank that does not proceed in this way is giving a head start to those banks that actually do so.

In the following, we present our vision how a retail customer will interact with multibanking and how retail customers and banks can benefit from.

The Multibanking Ecosystem

Imagine a world where you don't have to worry too much about building a correct financial setup based on your needs. A world where you don't have to think about which card or account to use in certain situations. A world where managing your finances will be so simple and streamlined that you can focus on the things that really matter to you.



“The Multibanking Ecosystem is the user centric ecosystem that consist of multiple financial products from different institutions.”

The benefits of multibanking ecosystems come together with additional complexity for the retail customer. For example, the retail customer needs to use the right credit or debit card for a specific transaction to catch the benefits from the multibanking ecosystem. This complexity hinders retail customers to leverage the benefit of the multibanking ecosystem.

We need an instance that is able to:

- to learn what retail customers need
- to recommend optimal financial product or services, and
- to orchestrate the usage of the right product and service for the right purpose at the right time.

This instance is what we call the multibanking brain.

In the following, we'll present some use cases of the benefits of this multibanking brain.

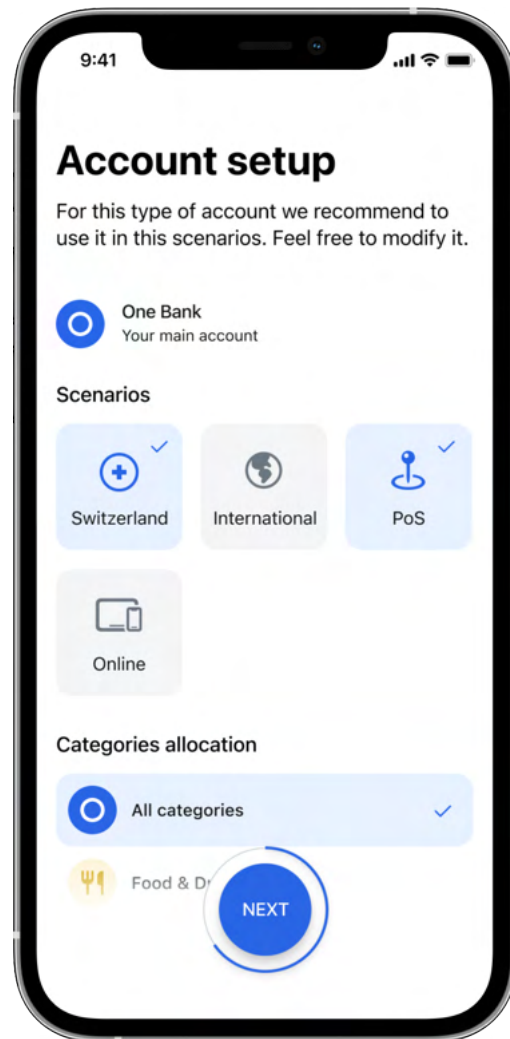
One card and accounts setup

Clients with multiple bank accounts from different providers ask for a single place to get an overview of their accounts and manage their payments. A single place leaves clients still with handling a multitude of credit and debit cards, which remains cumbersome.

There will be a need for a single card, specifically a gate or proxy card, that consolidates the benefits of all cards. To this goal, we need to provide a single card that can triage payments to various cards based on the context and scenario.

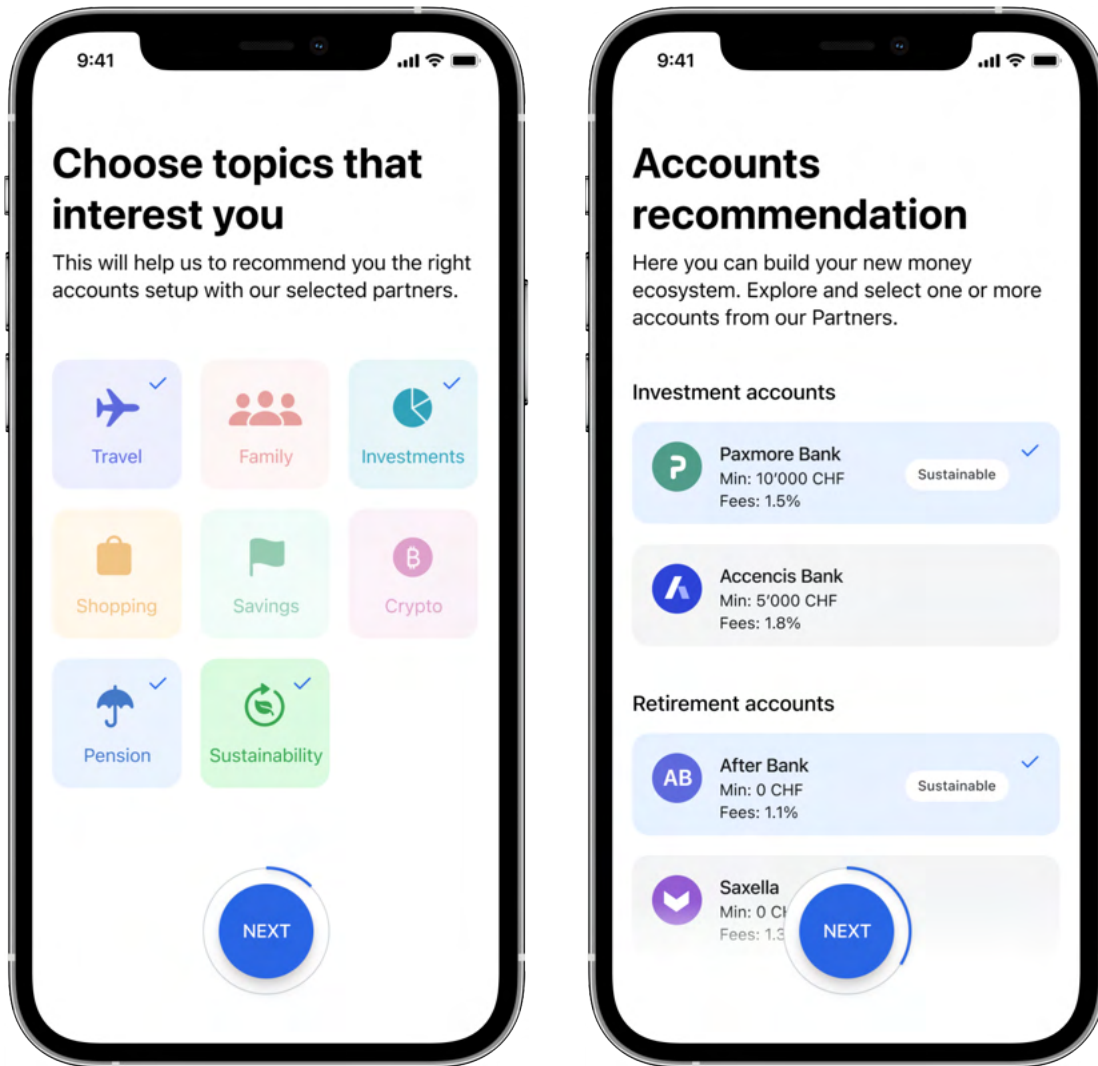
The customer has only one “Multibanking” card. This card is connected to the central brain which, based on the types of accounts connected and the type of settings assigned, is able to automatically choose which account to debit the transaction.

Each account can be configured to be used in specific context (e.g., in Switzerland) and specific scenario (e.g., shopping groceries).



Leverage the partner ecosystems via hyper-personalization

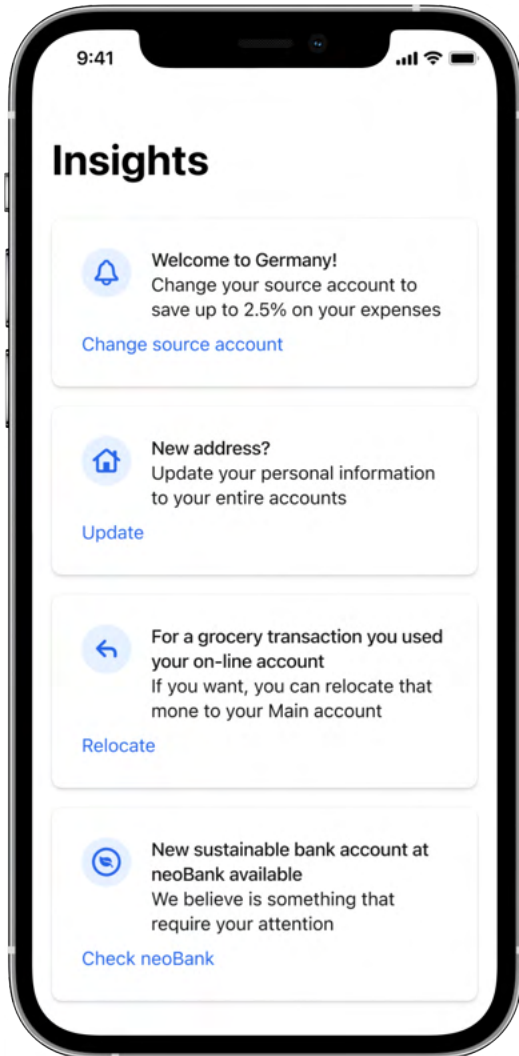
Clients have individual preferences and needs. As a bank, we are interested in knowing and understanding their preferences and needs to provide the right services. In the following screenshots, we envision a multibanking onboarding process that collects the client's interests and positions relevant offerings of our partner ecosystem to provide them a hyper-personalized package.



Multibanking empowered Personal Financial Management

Multibanking introduces additional complexity for the clients in addition to its benefits, e.g.,: Change address with multiple banks, optimize account selection for specific context (being abroad) and scenarios (grocery shopping). Thus, supporting the retail client is key for the adoption of multibanking as well as getting the promised value out of multibanking.

The following screenshots suggest four multibanking insights that support retail clients to get the maximum value out of their multibanking.



One insight suggests activating another bank account for foreign payments because it has lower fees.

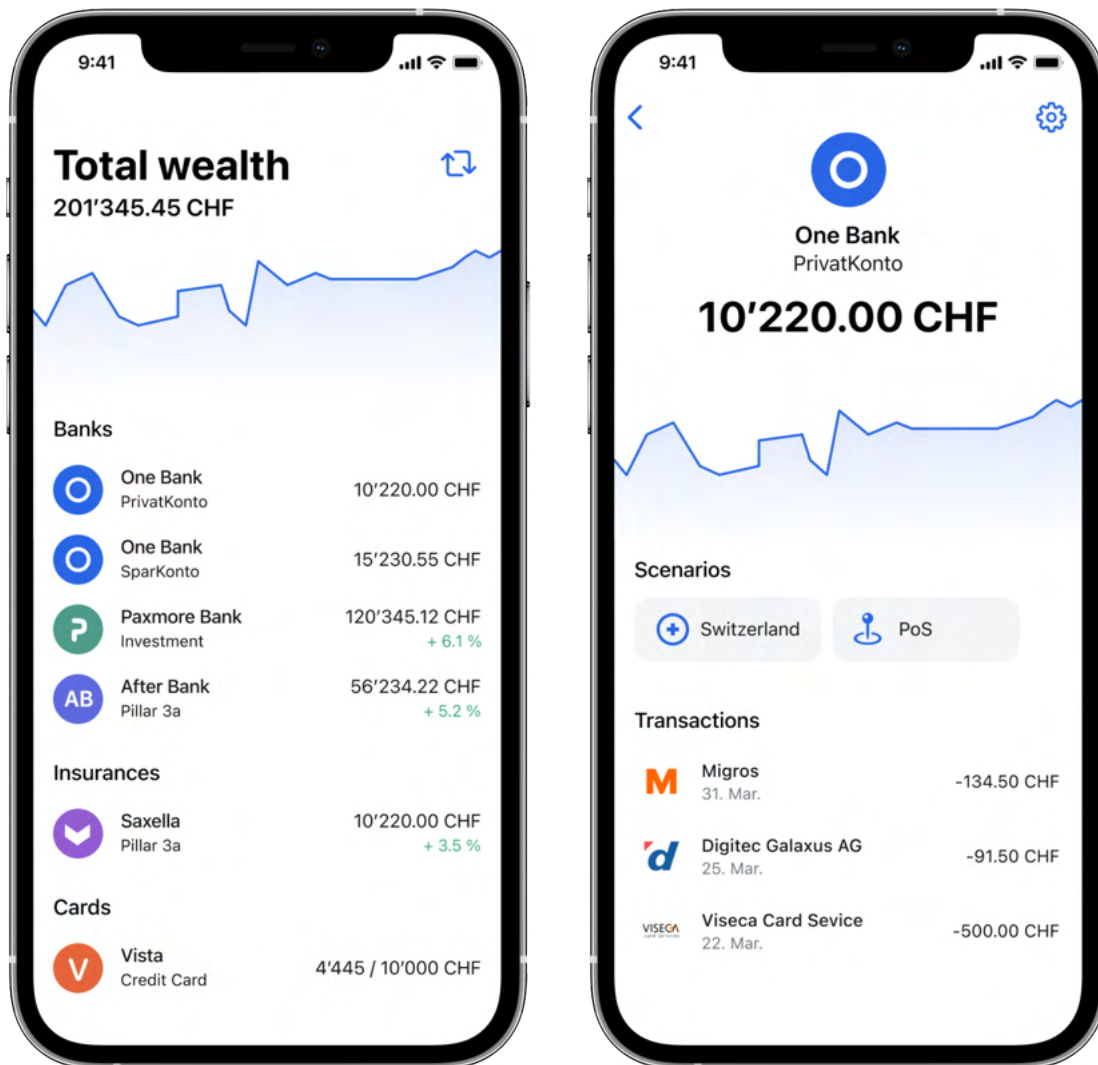
A second insight suggests changing the living address in one step with all banks.

The third insight suggests the client to change the payment method for groceries to receive for benefits, e.g., Cumulus or Super Points.

Ultimately, the fourth insight suggests a new service from the partner ecosystem because the Personal Financial Manager found some latent interest in the client's transactions that suggests interest in sustainable products.

Account Overview

Multiple relations and accounts with banks introduce complexity to the client. Thus, clients ask for a single place to get an overview of their accounts and assets as well as manage their payments. The following screenshots presents how this multibanking overview can look like. This overview consolidates the relevant info and shows the client the current state.



The first screenshots present an aggregated account and product overview. The last screenshots present a simple consolidated account overview.

Recommended actions:

- Development of different models for a fully-fledged multibanking.
- Reconstruction of the paths back to a read-only multibanking pilot (financial cockpit).
- Determine the deltas necessary to enable existing mobile/e-banking for multibanking.
- Early consideration of the multi-year planning required for Open Banking solutions.

6. Next Steps

Moving a bank in the direction of Open Finance is a decision of strategic relevance. Therefore, the first challenge is to convince the decision-makers to take this step. This document is intended to be an essential mosaic stone on this path.

As a next step, an event is thus planned to which decision-makers from all interested Swiss banks will be invited. The event is scheduled to take place in Q4/2021, and in connection of its preparation, cooperation with the Swiss Bankers Association will also be examined.

In advance of this event, an estimate will also be attempted to outline an initial quantification of the effort associated with participation in the Multibanking pilot.

Since the budgeting rounds usually take place between April and July of each year, the decision on participation must be made no later than Q2/2022.

It should be noted that this process is at least two-step. In an initial decision-making round, the willingness in principle to participate is elicited. Only after a critical mass has been reached, the concrete further procedure can be coordinated in a second step. The Multibanking pilot will not be launched until agreement has been reached here as well.

the development of the implementation roadmap can then begin in the second half of 2022. In this and all further steps, it is important that the entire further procedure is well coordinated.

This requires a cross-bank steering committee to oversee the entire process on the basis of binding rules agreed in advance. Broadly coordinated governance that is accepted by all stakeholders is critical to success.

As part of the implementation of the initial multibanking offering, release management processes must also be established to govern the feed of new requirements as they arise.

Appendix

A.1 Glossary

Abbreviation	Explanation
AISP	Account Information Service Provider
ASPSP	Account Servicing Payments Services Providers
AS	Authorization Server
C	Consumer
CIBA	Client Initiated Backchannel Authentication
DH	Data Holder
DR	Data Recipient
EBA	European Banking Authority
FAPI	Financial-grade API
FCA	Financial Conduct Authority
FI	Financial Institute
IdP	Identity Provider
JWT	JSON Web Token
JWK	JSON Web Key
JWKS	JSON Web Key Sets
OB	Open Banking
OIDC	OpenID Connect
OP	OpenID Provider
PSU	Payment Service Users
RO	Resource Owner
RP	Relying Party
RS	Resource Server
TPP	Third Party Providers
TTP	Trusted Third Parties
XS2A	Access to Account

A.2 Key Terms

- **Multibanking**

Multibanking in the narrower sense is the possibility of managing payment transaction accounts at different banks via a uniform user interface. On the one hand, this includes the availability of “read-only” functionalities such as the display of account balances or the list of transactions. By adding functionalities like *Payment Initiation*, clients using this uniform user interface could trigger “write” transactions such as payments which would in effect change the balance on the respective bank client account.

In a broader sense, Multibanking could include all asset management functionalities, i.e. also the integration of savings and pension accounts, wealth management services, mortgage loans, and other asset components. With regard to holistic wealth management, insurance products such as risk life insurance can also be integrated into Multibanking.

- **Open Banking**

Open banking describes the practice of standardised and secure exchange of financial data with the consent of the client between the bank and trusted third-party providers or between different banks. Multibanking is therefore a use case of Open Banking (other examples are mortgage brokers and trading platforms³⁰).

- **Open Finance**

Open Finance refers to the expansion of Open Banking to include other services with a financial connection, such as insurance offers. Such services can in turn also be mapped in Multibanking.

- **PoC**

This term stands for *Proof of Concept* and refers to a process in which a concept (e.g. a new business idea) is tested for its feasibility. As a rule, the proof of concept is associated with the development of a prototype that has the required core functionality.

The core of the present PoC is of conceptual nature. It is designed to serve as a blueprint for the next step, which will be the MVP (see next section).

- **MVP**

A *Minimum Viable Product* is the first minimally functional version of a product, which serves to learn from user feedback as quickly as possible and thus prevent undesirable developments that do not meet user requirements. In this context, it is important that the iteration offers a first “usable” benefit so that the users also utilise the product in daily life.

³⁰ Depending on the source consulted, these business areas are sometimes also subsumed under Open Finance.

A.3 Survey Results

A.3.1 Intro

Of the banks involved in the present key issues paper, the vast majority - BCV, Credit Suisse, HBL, UBS, Valiant and ZKB - have explicitly expressed their support for a platform approach based on SIX's bLink solution.

The question about the preferred solution variant (peer-to-peer vs. platform) was explicitly formulated as independent of the willingness to participate in the multibanking pilot already at the very beginning. Even banks where this readiness does not yet exist have a clear preference regarding the solution variant. This means that a bLink-based ecosystem also offers the best prospects for banks looking to catch up at a later date.

Furthermore, participation in the bLink ecosystem is no one-way decision, as the bLink contracts do not preclude scenarios in which a bank and a TPP establish a direct relationship while the bank is present on the bLink platform.

A.3.2 Essential Considerations

A significant fraction of the above named banks already has a contractual relationship with SIX for the bLink platform and uses bLink to offer services related to Open Banking (AIS/PSS). These banks still feel very comfortable with this decision and have all declared their interest in continuing to use this platform for their multibanking services as well.

Also mentioned is the intention to act in the future not only in the role of provider, but also in the role of service consumer (e.g. for corporate clients).

For banks not yet using bLink, reasons to prefer this approach were:

- bLink is perceived as an existing solution that is already established on the market
- bLink is viewed as being already able to handle the proposed multibanking use cases
- bLink is known to be used by banks that are very likely to also participate to the IMP
- bLink is assumed to be the faster way to provide a connexion between banks without "reinventing the wheel"
- According to the understanding of some banks, the reason for choosing bLink is mainly pragmatically motivated. They are on the better position to establish the interlinked communication between different financial institutions since one way or another they are collaborating already with every one of them.
- bLink is recognized as a solution that has already taken care of the dimensions
 - API
 - Consent Management
 - Approval Check (The professional approval process by bLink guarantees cooperation with trustworthy counterparties.)
- bLink creates a uniform set of contracts, which makes the effort for individual contract negotiations and reviews obsolete.
- bLink as a platform should simplify the architecture of the participating banks, as it is based on a single and standardized interface. This should also reduce the

development, maintenance, and testing effort and “speed up” the onboarding of new participants

- SIX already has established governance for bLink for collaboration, which strongly favors the feasibility of the Initial Multibanking Proposition.
- The outsourcing of the entire TPP management (onboarding, due diligence, support) reduces the bank's internal expenses and makes the bLink approach attractive also for smaller and medium-sized banks that cannot bear the expenses themselves internally.
- The market shift towards bLink should further increase due to openwealth apis.
- One thing to note when doing peer-to-peer integration – the consent flow that will need to be implemented will be different and more complex from a security point of view than using bLink – so there is additional work here above and beyond the bLink delivery. Therefore, more likely to come in 2023 ‘if/when’ needed.

There is a conviction that the work around the "Initial Multibanking Proposition" (IMP) will only fly with bLink in a reasonable time and with manageable financial resources.

To put it briefly: Multibanking thrives on a high level of willingness to participate on the part of the banks, and bLink creates the necessary scalability so that the investment can also pay off for the banks. For this reason, bLink is the right approach to implement the MVP.

Of course, the (larger) banks are still free to implement a peer-to-peer approach. In the IMP, however, this peer-to-peer approach would mean that many smaller banks would not be able to participate.

A.3.3 Accompanying Actions

It is to be clarified with SIX whether there will be a new/additional "application contract" as an annex to the main contract for these new use cases or how this should be contractually regulated (note, since it will involve productive data, the contractual bases of SIX are to be observed)

A.3.4 Long-term Perspective

In the long term, it cannot be ruled out that banks will rethink the way they interconnect and find a solution other than b.link (e.g. direct connection). Therefore, it must be ensured to the best possible extent that an exit from bLink does not entail any disproportionate expenses.

A.4 Excursus on bLink pricing

The subscription fee of bLink scales per application (e.g. Account & Payment Services (AIS/PSS), OpenWealth), and with the number of counterparties available on the platform. It is capped if more than 15 counterparties are available.³¹

³¹ bLink will implement this pricing model as of January 2022. Please note that support for a bank during the onboarding phase will be charged separately and by the effort. Further information on bLinks pricing can be obtained directly from SIX: <https://www.six-group.com/de/products-services/banking-services/contacts/connectivity.html>

In the case of multibanking, a bank is both a service provider and a service user for the Account & Payment Services (AIS/PSS) application. Here, the monthly costs for a bank will be as following: A bank will be charged as a Service Provider for “Account & Payment Services” between CHF 500 (less than 5 Service Users) and CHF 1700 (more than 15 Service Users) per month. As a Service User, a bank will be charged CHF 0 for any number of available counterparties. The general platform participation fee is CHF 200 per month.

A.5 Excursus on insurance cases

The IGB2B (www.igb2b.ch) is a good example of an attempt to create an intermediate platform that connects different market participants from a financial business. This is not about banks, but about assurers. However, a closer look at this model can also be useful for banks.

Basic facts:

- In the Swiss insurance industry, more than 25 insurers and around 1,000 brokers have joined forces to form IGB2B, a non-profit organization with the aim of increasing efficiency.
- IGB2B's DXP service, which forms the basis for automated data processing between brokers and insurers, was launched a decade ago. EcoHub as its successor has existed for less than a year. It is designed to cover solely Broker-to-Insurance integration, especially for offering resp. quotation. It does not cover end client use cases. Therefore, it is a B2B2C and not a B2C platform.³²
- The initial goal of the new EcoHub Platform was to move IGB2B services into a cloud environment. In addition, a far-sighted decision has been made to establish a hub for the entire Swiss insurance industry, not only for Broker-to-Insurance integration.
- The focus of EcoHub is on the possibility to deploy different insurance services from different service providers on the EcoHub platform. This approach is very similar to the Multibanking approach discussed in this paper.

A.6 Multibanking via EBICS

At least in theory, EBICS³³ based communication is also a possible approach to establish a “Peer-to-Peer” Multibanking. But due to its limitations, this method is not suitable for providing retail clients with online access to their accounts.³⁴

³² There are also other offering/quotation providers for brokers in the Swiss market, e.g. Sobrado (<https://landing.sobrado.ch>)

³³ The Electronic Banking Internet Communication Standard (EBICS) is a data transmission protocol developed for sending payment information between banks over the Internet. On the client side, it is mainly used by companies that manage their finances via an ERP system to connect it to their bank via a secure channel, but recently, there have also been the first implementations for business clients without their own ERP environment.

³⁴ The initial costs for establishing this asynchronous channel are relatively high, but the subsequent use for heavy payloads is low-maintenance. In contrast to synchronous data exchange via APIs, EBICS is an asynchronous technique.