# BelPay PSD2 Access-to-Account API

## API platform as a competitive business solution

The European Parliament has recently adopted the revised Directive on Payment Services (PSD2), which aims to disrupt payment services in Europe – by radically increasing competition in the payments industry and providing better value to the consumers. With PSD2, all the payment transaction participants could communicate to each other using an open Application Program Interface (API), based on the highly secure technical standards yet to be defined by the European Banking Authority (EBA).

API platform has become a mainstream business solution that enables co-creation, enhancing, sharing, reusing and monetizing customer value among the multiple cooperating parties that form on the fly a virtual transactional syndicate. For a wide range of customer devices, API platforms could support complex transactional interactions among corporate legacy systems (including SOA and EDI), third-party proprietary services and in-cloud SaaS on-demand distributed resources.

API value proposition is in its potential for exponential traffic growth and a wider distribution network that are supported by the lower innovation costs and by rapid time to market, due to its agile delivery model and seamless involvement of the outside developers. Transaction costs and profits are typically distributed between the syndicate members, who provide distinct value components for each individual transaction.

The underlining API microeconomic model is highly dynamic as, unlike in the far more slowly operated old 'formal partnership/service level agreements' procurement paradigm, virtual syndicate members might compete with each other for some of such transaction components. The new model has introduced numerous regulatory, governance, legal, compliance, risk management and indemnity dependencies, typically unresolved until API technology will be launched into payment practices.

For the established banks, PSD2 implementation could mean the need for large IT, risk and trust management investments, emergence of unrelenting third party competitors and reduced revenue streams. Alternatively, as conventional revenue sources decline, PSD2 API introduces an unparalleled opening for the banks to create new profit opportunities through innovation – by instituting novel value-add services and attracting premium clients.

## PSD2 Open API platform – advantages and challenges

PSD2 January 2018 introduction deadline means that all banks will have to provide undeniable real-time access to customer accounts (XS2A) to the approved third parties located across Europe, by using specially developed APIs. For numerous proprietary banking core legacy systems, PSD2 imposes the need for external interaction, and introduces stringent security and authentication requirements. Hence, implementing XS2A could be technically challenging and expensive.

Some banks and banking associations have already started building open API platforms and explore the potential for their monetizing, so that third party software developers would have controlled access on the bank's terms. By using an open API platform, the banks could somewhat reduce their XS2A development expenses. Still, all bank core systems have somewhat different architecture and implementation, language profiles and security/privacy requirements, including their unique authentication, authorization, AML/fraud detection and financial messaging blocks. Open API solution might not exactly fit your bank's complex core banking system and might be difficult to manage.

However, the main setback with this approach is that it is unlikely to provide a bank with the substantive revenues and competitive advantages over all others participants.  It is possible that the financial industry will end up with a multitude of diverse API implementations, covering different banks, countries, vertical applications, third party intermediaries and business clients.  Thus, one of the Italian digital banks has already developed more than 700 APIs (!) for PSD2 connections.

More important, PSD2 might mean loss of the bank's best customers to the new aggressive FIs that could rapidly introduce more profitable premium financial services on the top of the mandatory access to the customer accounts.  Some banking experts argue that it is difficult to derive a profitable business case just for two PSD2 basic account calls – Account Information Services (AIS) and Payment Initiation Services (PIS).

Even though XS2A regulations and technical standards have not yet been finalized, there is not much time to lose in preparation to this event.  It is necessary to start piloting your new API services today, and also explore essential integration of profitable services from other vendors.

## *BELPAY XS2A API PLATFORM*

BelPay has recently developed an advanced PSD2 API platform that supports introduction of new services and a set of APIs necessary for PSD2/XS2A connection to the banks and corporates, allowing your bank to remain competitive in the new business environment.  *BELPAY XS2A API PLATFORM* is highly advanced, flexible, easy to manage and inexpensive to maintain.  It satisfies enhanced security and authentication requirements of the evolving PSD regulatory framework.

*BELPAY XS2A API PLATFORM* that is interfacing with the bank's core payment services is presented in Figure 1.  BelPay APIs could be customized for individualized connections to each bank's core system, both for instant payments and batch processing.  The platform supports unified Internet banking interface SEPA/ISO20022, as well as messaging for payment initiation, cash and account management.  Common and interaction features include XBRL call reports according to FDIC taxonomies.

BelPay API security solution by our partners includes strong 2-factor authentication (typically PKI+biometrics or PIN), customer authorizations, dynamic links to details of each payment transaction, and transaction non-repudiation due to the use of digital signatures.

To ensure that access via the third party has indeed been authorized by the bank's customer, *BELPAY XS2A API* uses tokenization or secure delegated access method in accordance with the IETF OAuth 2.0 authorization framework, which has been particularly favored by the European Payment Council that represents the European banking industry.  Bank's API issues a token to the third party, who presents it back to the bank after the token has been authorized by the customer.  The customer can authorize this token for one or several transactions, or to revoke it at any time.  To ensure privacy, the bank does not share customer profile with the third party.

BelPay APIs could also support alternative authentication approaches for the banks that prefer them, such as OBeP redirect or overlay.  Each authentication method has its own advantages or compromises, ease of use and cost factors.
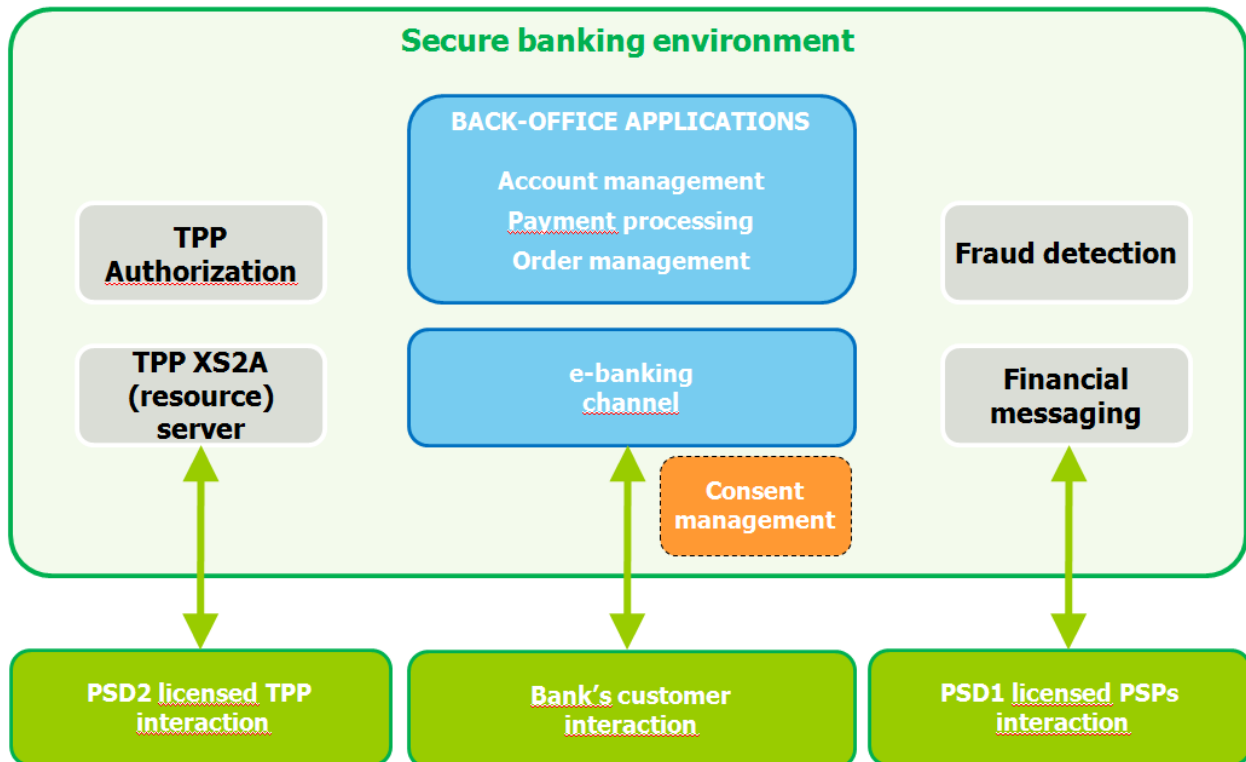
Figure 1.1 *BELPAY XS2A API PLATFORM* interfacing with the bank's core payment services.

BelPay API exception management includes the following key elements:

- *Authorization*: Do the people entering transactions into the system possess the authority to make transactions at that level?
- *Data completeness*: Have all of the necessary data elements required for a specific transaction been entered into the system?
- *Table integrity*: Have any unauthorized changes been made to the tables in the system?
- *Edit checks*: Are the system's preventative controls functioning as intended?
- *Transaction verification*: Are the transactions that the system is performing correct?
- *Data input integrity*: Was data entered in a way that conforms to business rules?

BelPay API platform could provide your bank with substantial competitive advantages and high profit potential. It could be further customized for working with your bank's core system and supporting development of new revenue streams. The APIs could also be modified for the EBICS protocol by BelPay business partners who specialize in EBICS transactions.

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## BelPay – Improving profitability and reducing risk

BelPay is a Brussels-based and well-established innovation consulting service that supports banks in maximizing their revenues, by helping them to improve the performance of their payment systems, or to structure new services.  Our team includes world-class banking and treasury experts in the technology, operations, security, compliance and regulatory issues that are critical for creating and running a bank.

BelPay offers comprehensive and cost-effective transactional banking, treasury, supply chain finance, liquidity management and payment solutions to the commonly experienced corporate administrative challenges in support of international trade.  Through extensive technical and financial research, we are able to implement the latest and most advanced means of optimizing and monetizing your payment operations and managing cross-border transactions.

We have detailed knowledge of the current payment innovations and of critical back-office core banking systems, and deep experience in the development of underlying banking technologies.  Our advanced implementation methodology is based on our proprietary financial optimization framework.  It helps to define profitable and sustainable business and technology architecture by modeling the microeconomics of transactional business lines and support processes.

## Take advantage of our offer – email or call us today

## Ensure regulatory compliance and improve profitability by integrating
## *BELPAY XS2A API PLATFORM*!