SECURE YOUR POTENTIAL

Are You Ready for PSD2?

Business Aspects

KOBIL secure your identity
SECURE YOUR POTENTIAL

We believe in a fully digitalized future. Anything on earth should have the capacity to communicate and interact with any other thing. Security is crucial for this.

In the fully digitalized near future, people, companies, things, places, processes and documents will communicate in new and unconventional ways. There will be new services, new experiences and new business models. We will adapt ourselves to the new normal. There is no limit. It’s all about creativity.

As we all know, digitalization, connectivity and coverage play a big role in making all these scenarios real. In fact, one of the nontrivial fundamentals is secure identity management. If we are talking about a fully digitalized future, it is not only the people that need identities but also companies, things, documents, processes and places. As KOBIL, we have been using the tagline “Secure your identity” for many years now. These new realities show that securing your identity also secures your potential. Our 360° Ecosystem model can be implemented to all industries. And when this model is implemented it will serve as a good foundation for digital business models and business model platforms.

Following the entry into force of the revised Payment Services Directive (PSD2) on 12 January 2016, in February 2017 the European Banking Authority (EBA) published the draft Regulatory Technical Standards (RTS) to define how banks open access to their accounts for Third Party Providers (TPPs) with the implementation of APIs. This allows bank customers to decide which provider to use when viewing their bank information or triggering payments. As KOBIL, we see PSD2 as an important milestone that triggers digital transformation and open banking and we are proud to mention that our security platform enables reliable, continuous, binding and secure communication and fulfills the strict requirements of the PSD2 and RTS.

There is no doubt that PSD2 triggers several challenges for banks. So, both banks and TPPs need to carefully consider their strategic options. As a result, there are three strategic options for banks. In the first strategy, banks only want to be compliant with PSD2 with the minimum effort. With alternative 2, banks use PSD2 as a tool to invest in agility and customer engagement. Using the open banking advantages and keeping the customer ownership will bring lots of opportunities. And lastly with alternative 3, the role is even bigger. The bank builds its own ecosystem and becomes the main orchestrator of all digital identities in this ecosystem.

In summary, digital transformation brings many important opportunities to the banking industry. PSD2 will be an accelerator for this transformation within the EU. Securing identities is vital for this transformation to enable big potential.

And because of all these reasons, we named this report as “Secure Your Potential”.

Yours sincerely,

Ismet KOYUN
Founder and CEO
KOBIL Systems GmbH
Digital transformation is in our agenda since a long time. “Bricks and mortar” was a popular term at the beginning. This term evolved into “clicks and mortar” to engage the traditional business models with the Internet. It was a must for every company to have a website, an online shop and online customer services. Corporate systems were required to integrate with the Internet to survive. Amazon, Expedia and CommerceOne were the new comers and shown as success story examples. Traditional companies had to resist their digital competitors, seize the potential in the clicks and turn it into their advantage with the support of their good old bricks. The digital transformation story of Barnes & Noble bookstores was everyone’s favorite.

Those were the days when dot com bubble hadn’t exploded yet. The Internet was not this big and we didn’t have smartphones in our hands. Google was new to our lives. We hadn’t even heard of Facebook, Twitter, Instagram, LinkedIn or Wikipedia.

New US, New Normal

Today, the digital world is much more powerful and broader. Digital revolution changed our daily lives, our habits and our relationships. Business world had to align with these new demands, new behaviours, and new trends. In fact, the digital transformation is all about affiliation with our new normals.

Think about the millennials. They grow up with social media and they believe in an obvious transparency culture that triggers the “like” economy. They have no hidden agendas; they like, they dislike, they get angry, they wow, they want… They are analytical thinkers. Numbers are very important for them. Even the tiniest details are considered and evaluated.

Sense of belonging is precious for millennials. Yet, on the other hand they are selfish. It is important to be noticed and to feel special, that’s why they want to personalize everything they can.

Change will never be this slow again. Technological trends like artificial intelligence, conversational interfaces, augmented reality, virtual reality, internet of things, big data and Blockchain will trigger new trends. And by near future, we will have a complete different set of new normals.

Without Culture

Sharing economy is one of the popular trends today. We like to produce together, consume together and most importantly to share together. Sharing economy has also changed the business world and introduced us to the concept of “without culture”. What does “without culture” mean? Let’s explain it with a couple examples. World’s most valuable retailer Alibaba holds no inventory; Airbnb is the world’s largest provider of accommodations but owns no real estate; Uber is the world’s largest car service but owns no cars. Uber is currently valued at $51 billion by its investors. Meanwhile, the cumulative market value of New York City taxi medallions is less than $13 billion. World’s biggest media platform Facebook has no employees to create content, while the world’s largest catalogue Amazon doesn’t produce any of its sold products. There are many other examples to add to this list and what all these examples have in common is “disruptive innovation”. It is essential to build new human centric business models that do not depend on capital, in order to survive in a constantly evolving digital world.

It is essential to build new human centric business models that do not depend on capital, in order to survive in a constantly evolving digital world.
The banking sector has always been one of the pioneer and open-minded sectors that adapted itself to business world trends. Since banks are one of the essential parties in our lives, the leaders in the sector find it important to cater their customers’ convenience and thereby strengthen their position in daily life. That’s why banks are the first ones that commenced their digital transformation journey years ago.

A lot has changed in the past 25 years. From the days that we had to wait in the queue for hours just to withdraw some money to wiring money to another country is now a click on your smartphone. Yet, banking is still associated with bureaucracy and considered as a hustle that we have to deal with. Even though the banking sector has started its digital transformation, there is still a long way to go.

FINTECH REVOLUTION

As Bill Gates said “Banking is necessary, banks are not”. The only reason that the bank industry exists is because people have always needed a trusted third party to hold their money. Now this is changing with digital innovations allowing new players to address customer needs related to financial issues. Considering that banks will soon start to cater people that have never been to a physical bank branch in their life – as known as the millennials, banking industry has to redesign itself in order to meet its customers’ needs and survive in this disrupted market by FinTechs. The most important question is: How?

OPEN BANKING

With the rapid proliferation of personal finance applications, the race to meet customers’ demands to view their banking information in ways beyond the traditional banking applications is on. FinTechs look like they are winning the race with their agility. However, with open banking it is possible for banks to reposition themselves in the market, protect their reputation and become the leaders also in customer experience.

Open banking is briefly the concept that allows banks to share customer data with third-party companies in a secure and real-time way through application interface platforms. The main goal with open banking is to make the required data accessible to other parties to allow them to build a better customer experience. In other words, open banking aims to create a universe of applications that use people’s bank account information to offer a broad range of products as possible to suit customers’ needs. For now, it seems like open banking is dependent on banks sharing the information with APIs and third-parties. But soon, banks will be obliged to facilitate access to this information due to PSD2 regulation. Therefore, it holds significant importance for banks to seize this opportunity to create customer-centric platforms with a new structure of services and business models, alongside insurgent third-party FinTech providers.

While all this is happening, cybersecurity is one of the most important issues related to open banking. Even though we are keen to encourage openness, we still care about our privacy and security.

This whitepaper is everything you need to find out about PSD2 regulation, open banking, new opportunities and cybersecurity in this new digital world.
WE BELIEVE IN A FULLY DIGITALIZED FUTURE. ANYTHING ON EARTH SHOULD HAVE THE CAPACITY TO COMMUNICATE AND INTERACT WITH ANY OTHER THING. SECURITY IS CRUCIAL FOR THIS.

PERSON
Networking employees, customers and partners in smart ways that bring them closer to each other and closer to the value creation.

THING
Connecting fixed and moving objects to give us information and power to control, and make them communicate with each other.

COMPANY
Linking your network of partners & institutions to unify communications, and optimize your collaborative process.

APPLICATIONS
COMMUNICATION
IDENTITY
SIGNATURE
PROTECTION
DIGITALIZATION
SMART WORKPLACE
CUSTOMER MANAGEMENT
SMART CITIES
SINGLE SIGN ON
GEOLOCATION SERVICES
360° SECURITY
BRING YOUR OWN DEVICE
INDUSTRY 4.0
UNIFIED COMMUNICATION
INTERNET OF THINGS
WEARABLES
SMART WORKPLACE
SHIELD
PAYMENTS
SECURE
We believe in a fully digitalized future. Anything on earth will have the capacity to interact with any other thing. We think there are 6 main axes in this equation: people, companies, things, places, processes and documents. It is easier to design scenarios when people are at the center. Yes, people will continue to interact with other people, but also with things, companies, documents, places, processes. Now think from other perspectives where a thing interacts with a process (e.g. Industry 4.0) or a document talks to a place (e.g. location based authentication) or a company talks to a person (e.g. chatbots). Sky is the limit. It’s all about your creativity.

For all these scenarios to come into life, there is the need for digitalization, connectivity, frequency, bandwidth and coverage. In fact, one of the untrivial fundamentals is secure identity management. If we are talking about a fully digitalized future, it is not only the people but all 6 axes that need identities. As KOBIL, we have been using the tagline “Secure your identity” for many years now. These new realities show that securing your identity also secures your potential. Our 360° Security model can be implemented to all industries. And when this model is implemented for banking, it will serve as a good foundation for open banking.
PSD2 is an update of the previous EU Payment Services Directive 1 (PSD1), which extends the scope of its predecessor to payments in all currencies and payments involving only one EU/European Economic Area based provider. In addition, PSD2 introduces Third Party Providers (TPPs) and these TPPs have an obligation to take strict security measures in order to protect consumers’ data while initiating and processing payments.

**PSD2 WILL:**

- Make the European payment market more effective and integrated.
- Reduce the entry barriers for new players to act as payment service providers and pave the way for new innovations and escalate the competition.
- Reduce settlement cost for customers.
- Fix the existing loopholes in the previous regulation to strengthen the customer protection and enhance transparency.
- Introduce new services and new service providers and broaden the scope of the service providers.
- Broaden the scope of PSD1 to include every type of payment acquirers and all types of payment instruments.*

* with some exceptions such as: meal vouchers, fuel cards, store credit cards and membership cards.

**KEY CHANGES OF PSD2:**

- **Extension of Scope:** The regulation now covers all transactions that have at least one end of the payment in the EU/EEA.
- **Strong Customer Authentication:** 2-Factor Authentication is a requirement for electronic payments, making PSUs’ financial data stronger.
- Providing terms and conditions of the service mandatory for the service provider both before and after the execution of the service.
- Limit the liability of the user to €50 for unauthorized transactions that occur because of a stolen or a lost device.
- **Third Party Providers:** Introduces new types of TPPs such as Payment Initiation Service Providers (PISP) and Account Information Service Providers (AISP).

**ARTICLES OF PSD2 COVER SERVICES SUCH AS:**

- Enabling cash deposits and withdrawals
- Execution of credit transfers, standing orders, direct debits
- Payments through cards or similar devices
- Issuing of payment instruments (i.e. cards, wallets) and/or acquiring payment transactions
- Money remittances
- Payment initiation services and
- Account information services

**PISP:** A Payment Initiation Service Provider will become a link between the bank accounts of the customer and the retailer, enabling any licensed company to initiate the transaction. The service scope of PISPs may include services such as Peer-to-Peer transfers between two persons and bill payments.

**AISP:** AISPs are service providers who have access to customers’ bank account information with the customers’ consents. The introduction of AISPs bears great opportunities for businesses and organizations since they will have access to consumer data, discovering the patterns of spending etc.
THE NEW ROLE
OF BANKING

With the changing regulation and the entry of countless potential players, as KOBIL, we think that PSD2 will bring banks three options to transform themselves. PSD2 provides an opportunity to banks to enhance their services and become more than a bank.

**Bank as a service:** Comply with the regulations of PSD2 and facilitate access operation.

**Bank as a platform:** Develop new solutions by using a platform business model.

**Bank as an ecosystem:** Orchestrate the customer data to provide superior customer experience to achieve ultimate customer loyalty.

BANK AS A SERVICE

By embracing the simplest role among the vast opportunities that PSD2 has presented, being a bank as a service means establishing a secure environment with providing strong customer authentication, authorization and secure communication for your customers in a playing field with new competitors and dynamics, which is now emerging as a new business model and an efficient competitive toolkit.

**Comply with PSD2**

With PSD2, banks are enforced to comply with the updated Regulatory Technical Standards (RTS) in topics such as security, providing basic APIs to Third Party Providers (TPPs) and facilitating access to them. Once banks are willing to unlock their data and application services to partners, they are no longer the actual owner of the customer experience and relationship. This is a complete new mentality to banks and their traditional business model. The newly introduced TPPs, AISPs and PISPs, will bring a lot of new competitors which have never existed.

**Basic APIs**

PSD2 aims on the integration of standardized and open APIs to share data with developers, partners and third parties. The ease of integration with banks will lower the entry barriers for many companies that want to initiate payments and to build valuable service offerings.

**Facilitate Access**

When PSD2 becomes effective, within the customers’ consents any PISP will be able to initiate payments and any AISP will be able to gather data of customers. In order to provide a more innovative and customer-driven offer, banks need to facilitate their access to customer data. For example, it may be an option for people to pay their bills and subscriptions via Facebook and Google and transfer money to their friends and family through WhatsApp and gain precious information about your customers.
The second role that PSD2 presents to banks is to become a bank as a platform. With PSD2 enabling nonbank companies to become competitors to banks, banks should look forward to create new opportunities for revenues.

Becoming a platform will allow banks to earn revenue not only from monetary exchange but from nonmonetary exchange as well, such as exchange of data, algorithms and digital currencies. This option enables banks to create new revenue streams and have competitive edges against their new and existing competitors.

**CUSTOMER ENGAGEMENT**

Communicating with your existing and potential customers is an essential marketing action. Banks can increase the amount of communication with their customers by growing into a platform. Customers are going to be exposed to you more frequently since you have become more than a bank, a platform where your customers can satisfy needs more than banking.

**MONETIZE BY API**

With PSD2, banks are required to provide basic APIs to AISPs and PISPs. This obligation is a challenge for banks since they are going to have to infrastructure to their new competitors for the operations that only banks could profit from. It is up to banks to turn it to an opportunity. Adopting a platform model makes it possible for banks to offer advanced APIs to AISPs and PISPs and to create new revenue sources as well as a chance to build new long-term partnerships.

**ESTABLISH TRUSTED THIRD PARTY**

Banks have a valuable asset; trust of their customers. Platform business models will allow banks to utilize this asset even more. With a lot of new players entering the competition, trust will become even scarcer and more valuable since the new entrants will need time to build the trust that banks have built over the years. With the know-how and the experience, banks can provide a trustworthy environment for customers and companies, adding value for both parties.
The ultimate role for banks is becoming an ecosystem. The Digital Business Model ecosystem is a self-contained, paperless digital world, which can be used for your company internally, but also with your partners and customers.

**BUILD YOUR OWN ECOSYSTEM**

Banks can build their own ecosystems, where they may bring relative companies as business partners in order to create a new digital environment, providing different advantages to different parties. Your partners will have their costs reduced, their response times shortened and customer loyalty built more easily as whereas customers will be enjoying the perks derived from the advantages you and your partners have.

**SUPERIOR CX**

With the developments in technology, the flow of information has geared up, increasing the importance of customer satisfaction. Customers nowadays have more alternatives, easier access to information on how they can satisfy their needs and are more educated. With the implementation of the ecosystem role, banks will have the opportunity to enhance their and the partners’ customers’ experiences, creating a mutually beneficial world for everyone.

The benefits of the ecosystem grants a superior customer experience because the harmony between business partners will augment the service provided.

**NON-FINANCIAL SERVICES**

Becoming an ecosystem sets no limits! Because the ecosystem allows banks to serve any company or customer where identification is required. The ecosystem allows users to digitally sign documents in a secure environment, allowing them to transfer files and documents. The possibilities are countless, from calling in a sick day to modifying your health insurance, anything can be done in a faster manner with easier steps.
AISP is the abbreviation used for describing the third-parties that are “Account Information Service Providers”. It is a buzzword in the FinTech world, and with the new EU Payment Regulation (PSD2) it is now even more popular. AISP can be any form – application, web site, chatbot and beyond. With the new directive, if an account owner gives permission to these third-party players, the bank is obliged to let them access to the account information. A popular use case is account aggregation. Although PSD2 is a directive for payments, access to account information will trigger many other opportunities. And let’s not forget - data is the new gold; converting data into information, and information into insights will bring new potential business areas. Last but not least, banks can also position themselves as AISP and thereby disrupt the market.
RIGHT TO ACCESS

Why would you let a third-party player access your account information? Well, the answer is why not? There are many use cases that are triggered by need for convenience, eliminating bureaucracy, digital transformation and more. Just consider the money transfer experience. One asks for your IBAN number. You read, write, check and recheck those 34 digits. Your counterpart repeats the same process - read, write, check, recheck and even one more check. These kinds of basic convenience problems can easily be solved by AISPs. Or think about bureaucratic scenarios: school application, credit submission, visa application, tenders and business agreements. You still need to compile pages of documents on bank accounts, transactions, yearly balance etc. AISP can offer solutions for this.

ACCOUNT AGGREGATION

Account aggregation is all about compiling information from different accounts into a single place. These can be bank accounts, credit card accounts or investment accounts. As many people have multi accounts in different banks, account aggregation is a popular use case for AISP.

BEYOND PAYMENT

To open a bank account, one needs to provide lots of information and documents to the bank. They all need to be genuine, official, approved. In other words, the bank does not have only the account information but also personal-ID, address and more. By using these, the bank may also act as an access facilitator like login with Facebook, LinkedIn or mobile connect. These trusted facilitators will provide a secure digital experience to their customers in the digital world. AISP can also be used in call centers, teleservice scenarios and all alternative channels.

FROM INFORMATION TO INSIGHTS

It all starts with data. And the data becomes more valuable in the transformation to information, insight and finally knowledge. With PSD2, the bank is obliged to share some basic account information with the third-parties. Banks that want to be successful in open banking may set the bar even higher and provide some extra information such as aggregated information (like credit score) or metadata (like time, place and situation). There are many ways to monetize augmented data.

REDESIGN MARKET - BE AN AISP

The bank can also become an AISP and serve their customers. Instead of just complying with the new directive, the bank can continue to own the relationship with the customer, engage more, invest in customer experience and become more agile. Banks with open minds can lead the open banking revolution and monetize the digital transformation.
Secure Your Potential

PSD2 AT A GLANCE

Since the PSD2 regulation is quite new for everyone and it is about to change all the dynamics in banking sector, it may be a bit hard to fully understand its impact. What will change with PSD2? Will there be a power shift from banks to FinTech's? What opportunities are waiting for different parties? There are so many questions to be answered in order to see the big picture. That’s why we prepared this infographic and handled the PSD2 and bank relationship like a journalist – by asking the most basic questions: who, what, when, why, how? Whilst focusing on the basics of the PSD2 regulation and its impact on banks by “Who?, “What?” and “When?”, KOBIL’s position in this equation was to explain the why’s and how’s. Here is a quick guide to understand PSD2 and its impact.

WHERE?

Today it is possible to bank, transfer money, and do payments any time, anywhere. We have a large variety of touchpoints: some physical (ATMs, POS, branches, kiosks etc.), some digital (applications, web bank etc.), and soon phygital (internet of things, home assistants, wearables etc.). What matters for a unique experience is to have an excellent service wherever you are. Customers expect consistency, flexibility and holism.

WHO?

I am, I have, I know, I sign… When the issue is “2 Factor Authentication”, the main question that we answer is “WHO”. Banks have always been responsible for authentication and authorization of who can access to the banking systems. In the PSD2 era, the responsibility becomes more complex with the entrance of new players.

Why?

PSD2 will trigger 3 alternative paths for banks. The question will activate the ideal strategy. All banks in the EU will comply with the new regulations by early 2018. Some of these banks will choose to engage more with the customers to keep the relationship ownership. And some will go further and build ecosystems for customers’ sake. The third-party players’ questions will be on “WHAT”s. An AISP would request questions on questions some of these data. On the other hand, banks can act beyond and develop new services to monetize with providing further information.
WHAT?
The third-party players’ questions will be on “WHAT’s. An AISP would request questions on questions regarding account information; while PISP would go for payment data. PSD2 enforces banks to share some of these data. On the other hand, banks can act beyond and develop new services to monetize with providing further information.

WHERE?
The bank has different responsibilities based on the answer of the “WHEN” question. The tasks to be completed are very different “Before Transaction”, “During Transaction”, and “After Transaction”. These tasks are all interdependent and they need to be handled with a secure infrastructure.

WHAT?
The third-party players’ questions will be on “WHAT’s. An AISP would request questions on questions regarding account information; while PISP would go for payment data. PSD2 enforces banks to share some of these data. On the other hand, banks can act beyond and develop new services to monetize with providing further information.

WHY?
PSD2 will trigger 3 alternative paths for banks. The answer for the “WHY” question will activate the ideal strategy. All banks in the EU will comply with the new regulations by early 2018. Some of these banks will choose to engage more with the customers to keep the relationship ownership. And some will go further and build ecosystems for customers’ sake.

HOW?
The RTS document clearly defines the new legislations. “HOW” is the tough question to answer. Banks in the EU need to apply the transformation based on the guidelines. They need to decide on the way forward and finish the implementation as soon as possible. KOBIL’s 7 layer security perspective brings a robust, agile and compliant solution.
PISP is the abbreviation used for describing the third-parties that are “Payment Initiation Service Providers”. It is a buzzword in the FinTech world, and with the new EU Payment Regulation (PSD2) it is now even more popular. PISPs can be in any form – digital (e.g. apps), physical (e.g. IoT) and beyond.

With the new directive, if an account owner gives permission to these third-party players, the bank is obliged to let them initiate a payment transaction. Another important transformation is taking place in the peer-to-peer (P2P) world. The new PSD2 is not limited to the digital world but also physical Internet of things will also trigger unconventional payment initiations. For example your fridge or your car make a payment instead of you. Banks can also position themselves as PISPs and thereby disrupt the market.
PAYMENT INITIATION

Why would you let a third-party player initiate a payment transaction from your bank account? Well, the answer is why not? Think about the wallets – Apple Pay, Google Wallet, Android Pay, Samsung Pay, Amazon Pay, PayPal and many others. Or consider the popular subscription services like Netflix, Spotify, Audible, Amazon Prime, G suit and others. Last but not least, think of any kind of e-commerce or reservation services. In most of these scenarios, we share our credit card information instead of our bank account details. By this way, the third-party can initiate a payment via the credit card. In the case of a bank account, you need to go into your bank system and initiate the transaction. That is a big difference. After the new directive PSD2, this will change.

PEER-TO-PEER REALITIES

Instant Messaging platforms started enabling P2P money transactions. Facebook Messenger, WhatsApp and Snapcash are some of the examples. They all started with pilot projects to cover all around the world soon. And yes, they will also like to access to the bank accounts.

PHYGITAL REALITIES

Despite the perception, PSD2 is not limited to the digital world. In fact, we expect the physical world and the digital world to merge and become “phygital”. Retail industry is one of the first candidates to pass through phygital transformation. Most stores will get rid of cash registers. For example AmazonGo, you first check in to enter the store and then check out after shopping. We will meet new types of currencies and new payment models.

INTERNET OF THINGS (IOT)

We expect to have 50B devices to connect internet within the next 5 years. Anything that benefits from being connected will be connected: fridges, cars, bicycles, buttons, home appliance, light, all electronic devices, furniture, industrial machines, wearables, city elements and many more. Internet will not only connect these devices but also enable them to initiate payments. In other words, get your “things” ready to access your bank account and do payments whenever needed.

REDESIGN MARKET – BE A PISP

The bank can also become a PISP and serve their customers. In addition to their typical digital banking channels, they can introduce new agile services. They can produce white-label prototypes that can be used as a service development platform by their ecosystem. Instead of just complying with the new directive, the bank can continue to own the relationship with the customer, engage more, invest in customer experience and become more agile. Banks with open minds can lead the open banking revolution and monetize the digital transformation.
As KOBIL, we believe in a fully digitalized future and have been working hard for 31 years to provide the most crucial element of this future: security.

And now, another milestone on the way to a fully digitalized world is here – PSD2. We consider PSD2 as an opportunity for banks to redesign their business model. As KOBIL, we offer you to be your partner in this transforming journey that goes to digitalized and secure.

5 REASONS TO WORK WITH KOBIL FOR PSD2 TRANSFORMATION

1. KOBIL IS RTS COMPLIANT

PSD2 enforces banks to comply with the RTS document that summarizes the new regulatory related to confidentiality, strong customer authentication, integrity and authenticity. KOBIL’s solutions cover RTS articles regarding to SCA and security and thereby our solutions are RTS compliant.

With our 7 Layers of Security solution we secure your customers’ identity with seven different layers and make any kind of fraud attempt almost impossible. Our understanding of security starts even before the login process by securing the device and application. Moreover, our solutions see beyond the technical aspects of security and evaluates the situation considering the real-time context – time, place and situation. While doing all this, we provide titanium security with our Digitanium Channel by providing a dual communication technology to create a secure transportation way for sensible data between user and bank.

For more information, please check the KOBIL’s “Secure Your Potential – Technical Aspects” Whitepaper.

2. KOBIL IS SCALABLE

Good design is the foundation of a highly scalable application and a chain is only as strong as its weakest link.

With KOBIL’s scalable solutions and flexible modular structure, it is easier to make a fast entry into the market. Since we offer flexible and efficient UI to our customers, it is possible to adjust different functions of systems. On the top of that, with KOBIL’s scalable solutions you can support millions of users without encountering a problem.

Give us a call for a quick proof of concept. For more information, please see pages 22-23.

3. KOBIL IS MULTISCREEN

KOBIL solutions are supported by any kind of devices and applications, as well as supporting both iOS, Android and Windows and native, hybrid or web. It doesn’t matter whether you are on your smartphone, tablet or desktop, you can use KOBIL solutions without encountering any restrictions. Moreover, digitally connected devices are encroaching on every aspect of our business, processes, offices and even our bodies. More connected devices mean more attack and more possibilities for hackers to target us. KOBIL is “IoT ready” and thereby future-proof for security perspective. We do not develop solutions just for today’s platforms, but also for future’s.

For more information on our multiscreen perspective, please see pages 20-21.

4. KOBIL IS PROVEN

We believe that the usage of proven software designs and implementations are reducing cost and improving quality of software. As KOBIL, we are proud to be the architect of Germany’s digital nervous system by working with German Federal Network Agency, Deutsche Post and Deutsches Gesundheitsnetz (German Healthcare Network).

In addition to our role of being the backbone of Germany’s security, KOBIL technology is also proven by the biggest players of the market. We work with major companies such as Migros Bank (see page 17), ING DiBa, Erste Group, Bank Verlag and DHL and honoured to support them with our secure technology.

5. KOBIL IS BUSINESS PARTNER

PSD2 is automatically associated with “Payment”. But it is beyond payment – this is all about a new competitive environment, customer journey ownership, customer experience, digital transformation and innovation. The outcomes of this transformation will affect many aspects of business. Therefore, this vision can only be achieved through the trusted business partners and ecosystem business model.

Trust is one of our core values. We are here for you to secure your potential and accompany you at your journey to future. As a team, we strongly believe in the power of co-creation, lean methodologies and offer to help you to redesign your business, products, services and process with the solutions and services we provide.

For more information, please see “From Idea to Execution” (see pages 20-21).
More Security for Mobile Banking

Today, more and more customers want their electronic banking operations to be mobile, so Migros Bank had to adapt its e-banking solution to the requirements of the mobile world.

Stephan Wick is a member of Migros Bank’s management and is the client of the project at Migros Bank. He explains the additional requirements as follows: “In the meantime, more than 74 per cent of Swiss people use the internet via smartphones and tablets. Of course, these users also expect their mobile banking operations to be mobile.”

For most of these mobile devices, however, USB sticks, as used for the existing solution, could not be used. “This is why we need a solution that is purely software-based,” says Wick, “regardless of the terminal used, which is comfortable and can effectively deal with the major security risks in the mobile area.”

With the last remark, Migros Bank Manager is focusing on the only weak protection of mobile devices compared to PCs today. Antivirus programs, personal firewalls or other protection devices are the exception, although the mobile devices are constantly online.

Not infrequently, free mobile applications are malicious. You can intercept, listen to, forward and modify data from phone calls, SMS and 3G connections without the user being aware of anything. Secrecy and data integrity are therefore the biggest problems in the mobile field.

According to Wick, Migros Bank has tested security products from various manufacturers and ultimately decided on the KOBIL solution: “No other provider could meet all four criteria: software-based, device-independent, secure and comfortable at reasonable cost.”

Two Components for Safety

The security solution underlying its future e-banking process is considered safe for Swiss bankers because it is based on two components: a highly secure app on the user’s smartphone, tablet or PC and a security server in the bank only after various examinations, a one-time password to the app, which finally opens the access to the actual banking application.

“No other provider could meet all four criteria: software-based, device-independent, secure and comfortable at reasonable cost.”

CASE STUDY
It is a world of screens and we use them simultaneously or sequentially. It was not that long ago we welcomed “second screen” to our lives, and now we are nation of multiscreen. The king of screens, television, no longer commands our full attention, therefore it is usually accompanied with another additional device – usually a smartphone but also a computer or tablet as well. Our journey starts on our default device, the smartphone and we add our laptops to this list for productivity and finally our tablets just for entertainment. We juggle all these screens seamlessly, because we are a multiscreen generation.

MULTISCREEN

Multiple Screens - 90% of our media consumption occurs in front of screens. Our time spent on screens spread between 4 main devices, namely television, smartphone, tablet and computer. There are more screens to be added to list such as smart watches and IoT devices.

MULTISCREEN SCENARIO

In a multiscreen scenario there are multiple screens in use at the same time. An example for multiscreen scenario is watching television while tweeting about the show you are watching on your smartphone or using your tablet to do some additional research on the documentary you are watching on your laptop.

MULTISCREEN APPLICATION

An application, which is usable on various devices or platforms. Examples of multiscreen applications are YouTube, iTunes and Google. You can start to watch a YouTube video on your laptop and then continue on your smartphone without any disruptions. In order to prevent encountering any problems, the multiscreen applications sync your data in the cloud and thereby make it available between devices.

MULTISCREEN EXPERIENCE DESIGN

Strategic development and design of the products and services for different devices in order to provide an excellent multiscreen user experience.

MULTISCREEN GENERATION

The generation that is able to use multiple screens simultaneously and sequentially.
DIGITAL BANKING AND MULTISCREEN EXPERIENCE

Since multiscreen experience is becoming the norm, banking world should also adapt itself and adopt the rules of multiscreen generation. The efforts that banking sector puts in digital transformation are incontrovertible. Digital banking has played a big role in reshaping of banking sector. However, digital banking is more than online banking and actually covers more aspects of digitalization. Especially with the raise in variety of screens, digital banking has evolved into three different channels namely online, mobile and tablet.

Today most of the banks have applications for different devices for their customers’ convenience. However, being accessible on different devices doesn’t mean providing a great multiscreen experience for users. Therefore, it is important for banks to think beyond providing application and focus on user experience. The seamless multiscreen experience that popular applications such as Facebook, YouTube and Twitter provide should set an example for banking applications. The continuous and undisrupted multiscreen experience is significantly important for banking application considering how banking actions matters to their customers.

APPLICATIONS AND MULTISCREENING

When it is about multiscreening, applications play a big role and there is no one way to have a multiscreen experience but three: web, native and hybrid. It is a matter of choice and there is no right or wrong answer.

Even though web applications are usually considered as a website, there is a huge difference between these two. While webpages are informational, web applications provide functionality.

Majority of the applications on our tablets or smartphones are native applications. Considering their speed, reliability and responsiveness, native applications provide a good customer experience. While it is easier to tap into wider functionality of the device and enhance the application, native applications are also capable to use push-notifications and thereby alert the user or provide continuous interaction with the customers. However, a native application that is developed for iOS doesn’t work on Android and therefore different applications need to be developed for different devices, which obviously makes native applications costly.

In hybrid application scenarios, users install the application as if it is native and experience it as a web application. Hybrid applications are cost-effective and easier to scale to another platform. However, the customer experience is only as good as the web view and that is why the UX is not as impressive as the one that native applications could provide.

KOBIL PERSPECTIVE

Multiscreen enabled: As KOBIL, one of our missions has always been to develop multiscreen ready and enabled products. While focusing on our main goal – to provide security, we also considered the overall UX of our applications. In order to provide seamless UX, it is essential to develop and design all the elements and sub-elements of that application should be developed with the same mind-set, while developing the application. That is what we exactly did while developing our mAST SDK.

Webview Miracle: Webview was developed to provide a quality and secure user experience on web applications as in mobile and tablets. We do know that the most critical step that affects the user experience is login and authentication. With Webview it is possible to provide a seamless experience on web applications during login and authentication stages.

Native and Hybrid App: 7 Layers of Security approach is the only way to provide end-to-end application security. As KOBIL, we do know that a chain is only as strong as its weakest link. So is it possible to provide security in same quality both in native and hybrid applications? This is what we exactly do with our mAST products. It doesn’t matter whether it is a native or hybrid application, our SDK protects it on the same security level.
"If you dream it, you can do it" is a famous quote from Mr. Walt Disney. Creativity is all about connecting dots and generating new ideas. As mentioned, sky is the limit when we talk about creativity. But when the topic is innovation "landing" is as important as "flying". Innovation is transforming a good idea into economical or societal value. Innovation is execution.

On the other hand, the new digital world triggers not only "Open Banking" but also "Open Innovation". In the past, innovation was behind the doors in special labs. Today it is open doors. Instead of hiding ideas, we prefer to share ideas. Competition is replaced by ecosystems. Co-creation is essential. Last but not least, instead of slow steps agility does matter. Lean innovation models bring new ways of execution.

Open innovation is the main reason why KOBIL invested in becoming a founding partner for Redesign Business Services*. We assist banks to redesign their business under the light of innovation and lead them through their creative transformation journey. We use a compilation of service design, design thinking, business design, business model innovation and lean innovation techniques. We call this human-centric innovation.

**PSD2 AND INNOVATION**

As mentioned before, banks need to have a strategic decision on the way to handle the PSD2 transition. In all strategic decisions -namely "Comply", "Engage", "Build" scenarios- there is room for creativity. Creativity is not enough, execution is also needed. On the other hand, execution is not enough either; agility is also crucial.

The main innovation areas will be customer engagement, identity management, competitive positioning, new products and services, customer ownership, new touchpoints, phygital solutions, customer experience, digital transformation and ecosystem based scenarios.

Regardless of the innovation domain we use several techniques for human-centric innovation. Let’s have a look in them.

**EMPATHY**

There is a significant difference between describing the same person as "middle class and married young shopkeeper" and as "Adam Taylor, owner of Huckleberry Bookstore". While the first one is only a prototype, the second one is "a person". Prototypes lead us to think mechanically and therefore most of the business people skip talking to the people who actually use their product. The whole concept is created based on imaginary characters and suddenly the business model becomes an outcome of assumptions, which is a threat to the possibility of success.

KOBIL is your business partner during your innovation journey. Human-centred thinking is about changing this mind-set and really engaging with the target audience instead of pretending to know them. Without spending some time with the audience, it is not possible to find answers to important questions that help you to define your customers’ problems, goals, find the new ways to solve their problems and make them satisfied, and thereby make them loyal. Of course it is not possible to interact with all of your customers face-to-face. This is where “personas” step in. The personas you create with qualitative and quantitative data, lead you to the reality of your target audience.

Empathy will enable you to think from the customer perspective. It will trigger new ideas for a perfect customer experience, and new ways of customer engagement.

* Redesign Business Services is a strategic innovation and design company. We help corporates to redesign their culture and business under the light of innovation and lead them through their creative transformation journey. KOBIL is one of the founding partners of RE/Design Business Services.
ORGANIZED CREATIVITY

While emphasizing helps to reveal the hidden opportunities and define the real problems, organized creativity helps to develop this potential.

With the co-creation methodology and tools, the creative functions of the brain unlock itself in a very organized way. The word “organized” here has a sub-message as well: “together”. All the ideas are a result of the co-work with your customers, colleagues, partners and stakeholders. After idea generation and brainstorming sessions some minor, some unique, some disruptive but hundreds of ideas are developed. Even the smallest ideas could have a big impact on user experience. While some of these ideas belong to today, some of them appeal to the future prospects. Yet, what all these ideas have in common is that they fulfill the needs of your persona.

DESIGNING THE SYSTEM: TOUCHPOINTS

Idea is only the 5% of success. Planning the execution, designing the customer journey, defining the roles and responsibilities of every relevant stakeholder and then executing the idea brings you the success.

Human centric design thinking approach has an extensive methodology to guide idea owners through this process. When the customer journey is sliced into micro-actions, you also define the touchpoints. Touchpoints have five different types: people, place, process, objects and third-parties.

VISUAL DESIGN: EVIDENCING

Another important part of design is evidencing and here again creativity steps in. Services are usually intangible, yet it is important to make their impact be felt. Before usage, during usage and after usage.

On the top of that, this has to be done even before the service is launched. An important step in this is prototyping. Testing the developed service with the target audience gives an opportunity to get some feedback without spending loads of money and starting the operation.

FLUID DESIGN: HOLISTIC APPROACH

The human centric innovation process starts with empathy, then unleashing your creativity, designing the system and testing the ideas for target audiences’ approval. Yet, another important point is the “context”. It is important to design the service in a flexible way that fits to different contexts and situations.

What is fluid design though? Fluids take the shape of the container they are in. In our case, context is the container. The designs you develop has to be strong, refreshing yet flexible like water. The main goal is to manage the demand in the best way possible. Therefore, it is a must to consider even the most unlikely possibility.

At Redesign Business Services, we synthesize service design thinking with business design. We link business and design, digital and physical, context and technology, behavior and growth, trends and insights. Together with our customers, we build new business models, new services and new experiences based on KOBIL’s breakthrough technology.
Scalability is defined as the capability to cope and perform under an increased or expanding workload. As KOBIL, we redefine this term as ‘flexible scalability’. KOBIL systems and solutions are not only capable of handling millions of users but also can scale in many different dimensions.

PSD2 compatible 360° security platform for applications
- Proven
- “Plug & Play” w/ Back-End
- Core Banking
- IAM solutions
- “Plug & Play” w/ Front End
- Mobile Apps
- Tablet Apps
- Web Applications
- TPP
- Multi-device support
- Scalable
- Available
- Manageable
- Modular User Interface
- Adaptable

PSD2 compatible 360° security platform for extended API platforms
- Compatible
- Can be complemented by additional API platforms
- Multi-platform support
- Modular

PSD2 compatible 360° security platform for secure integration
- Supported by a wide variety of integration partners
- Enhanced Integration Tools for
  - Back-End Solutions
  - Front-End Solutions
- Provides “7 layer security” as a service
- Triggers for context based scenarios
- Enhanced Policy Management
- API interfaces
SCALABLE DESIGN

Today, even the smallest banks have tens of thousands of customers. When it comes to "scale", you may think it as the amount of customers you have, which is wrong. In the digitally transforming world "scaling" is getting a new meaning; it is not only about number of customers you have but also it is about the devices your customers own, the documents they produce on those devices, processes taking place in the applications installed in those devices.

The world is embracing the Internet of Things trend more, day by day. Almost everything we see in our daily lives are potentially capable of being inter-connected. People, things, processes, companies, data and documents are a part of an inter-connected system which is changing businesses as we know. This phenomenon affects people's habits as well, we have started to become multi-screeners, meaning that only one device is not sufficient for us anymore. We are reaching for a second, a third or even a fourth screen in order to complete our tasks or just to entertain ourselves.

Banks have always been big players and they have to think big. The sky-rocketing inter-connection between entities create many new relationships, thus creating a need for a better security, better binding and better authorization and authentication. The scalable design that we offer to our customers will be a service exactly scaled for your needs.

MODULAR ARCHITECTURE

Our modular architecture grants our customers flexibility based on their customers' needs, helping them to understand and serve their customers in a better way with our modular user interface augmenting their experience. In order to achieve this, we believe that the banks should grow step by step with different flexibility constructs in order to fully adapt to the digitalizing world.

Our quality in security services is proven by our customer portfolio. We are proud protectors of digital systems of German Federal Network Agency, Deutsche Post, Deutsches Gesundheitsnetz (German Healthcare Network), Migros Bank, Datev, DHL and many other prestigious companies. Aside from being trusted, our services are also preferred because we offer services that are scalable for a wide range of customer quantities, easily manageable, adaptable and available for various kinds of systems. We also offer "Plug & Play" with Back-End such as Core Banking and IAM solutions and "Plug & Play" with Front-End for Mobile/Tablet/Web applications with the help of our partners SAP, Avaloq, Finnova, Omikron, and Temenos.

SCALE THROUGH APIS

With PSD2, integration of third party providers to your systems through APIs would become an important task, bearing a lot of new opportunities and new possible services. It has the utmost importance not to deny yourself from these new alternative services since the race of digital identity will become fiercer. The security, binding, authentication and authorization requirements of PSD2 are already complied within our SDKs, allowing us to reach and integrate to hundreds of applications with the help of our partners like CA, Apigee, Axway. With the ready go-to-market configurations you will be able to launch your solution without losing time and directly complying with the RTS.

KOBIL's multi-platform support and compatibility creates a harmony for scaling your service further and will give you a competitive edge in the race of digital identity. To make the integration process with AISPs and PISPs more effective, KOBIL security platform can be complemented by additional API platforms, increasing efficiency. Our flexible modular structure will help you to enter the market faster, thus giving you another advantage in the race.

SCALE ACROSS

KOBIL helps your company to scale across your organization and your partners via setting an environment for a secure integration process under the protection of "7 Layer Security". Supported by a wide variety of integration partners like T-Systems, SAP, Kony, and SmartFace. KOBIL offers enhanced Integration Tools both for Back-End and Front-End solutions. It will be possible to build brand new applications with the usage of our SDK. Leading integrators and application developers will be able to develop private additional modules for companies.

We are supplying our customers with triggers for context based scenarios to prepare your company for many possible outcomes. KOBIL catalyzes creation, communication and maintaining policies within your company and between you and your existing and potential new partners with Enhanced Policy Management.
ABOUT KOBIL

KOBIL solutions have set a benchmark in digital identity and high-secure data technology. Founded in 1986, the KOBIL Group is headquartered in Worms, Germany and is a pioneer in the fields of smart card, one-time password, authentication and cryptography. The core of KOBIL's philosophy is to empower complete identity and mobile security management on all platforms and communication channels. Nearly half of KOBIL employees work in software development with specialists in cryptography. KOBIL plays a crucial role in the development of new encryption standards.

Companies such as Commerzbank, IBM, Migros Bank, Société Générale, UBS, ZDF and many others put their trust in KOBIL.

KOBIL also works with German Federal Network Agency and offers them a German specialist solution meeting their requirements under the name of KOBIL Trust Center HS.

KOBIL Trust Center HS has successfully been in use at the Federal Network Agency since 2003. It is designed to be redundant consisting of two systems working in parallel only.

KOBIL Trust Center HS uses its own crypto library which among other things allows for the use of innovative security mechanisms such as the elliptic curve cryptography (ECC). KOBIL Trust Center HS is subject the "Common Criteria for Information Technology Security Evaluation" and meets all requirements of the German Digital Signature Act.

MILESTONES

120 Employees
+1000 Corporate customers
3 BILLION Transactions per year
31 Years of history

1986 KOBIL Systems GmbH
Ismet Koyun founds KOBIL Systems GmbH with the focus on PC and data security

1989 Redundant Server Power-Supply

1998 SecOVID
Smart Card Based OTP Generation

1998 First Patent
KOBIL receives first patent ever related to digital signatures

1999 Gastromax
Mobile POS Terminal with DECT

1999 KAAN
Smart Card Reader with PinPad and Display

2003 mIDentity
No-installation Smart Card Reader with hardened browser onboard

2006 Success in Turkish Market
KOBIL achieves 80% market share in the Turkish e-banking sector

2011 KOBIL in the USA
Founding of KOBIL Inc., USA

2011 mAST
Virtual smart card with server protection

2012 IDtoken
A safer and cost-effective Smart Card Reader for NFC cards

2012 AST
Introduction of Application Security Technology

KOBIL also works with German Federal Network Agency and offers them a German specialist solution meeting their requirements under the name of KOBIL Trust Center HS.
SEE ALSO:

For more information on RTS articles and KOBIL5 solutions please see "Secure Your Potential - Technical Aspects"
Designed, developed and made in Germany