



DB's Account Pre-Validation Solution

AITI - TREASURY & FINANCE FORUM DAY

Bologna, September 15th, 2023

What is Account Pre-Validation?



- DB's Account pre-validation solution enables clients to efficiently onboard their suppliers / customers by pre-validating their account details upfront thereby reducing number of rejected payments / payments going to the wrong beneficiaries
- Solution is offered via an API which clients can call upon to check the existence of accounts (using IBAN / Account Number) along with Account Validation (Name / IBAN); DB will soon launch a web application where validation service can also be accessed (for those clients who may not be ready / prefer API integration)

Lack of account information verification often leads to:



Higher Risk



Delays in payments



Higher costs



Poor Customer Experience

Key Features of the Solution



Industry leading Global Solution – available for several key markets & continually expanding country coverage



Ability to check account existence (IBAN / Account Number), **account validation** (Name, IBAN / Account Number) (Note: Name validation is subjective based on country data protection regulations, GDPR)



Real time validation of accounts across DB & 3rd party banks (multi-bank solution); Connection via a single API to DB



Account pre-validation **API technical set-up** could be leveraged for other API use-cases – real time balances, statements, transaction notifications

Validate account information across many global use cases



First time beneficiary

When paying an account for the first time, the solution will help reduce the risk of paying the wrong recipient



Cross-border remittances

For cross border remittances, provide additional controls to validate the beneficiary



Vendor/supplier onboarding

When paying new suppliers and vendors, introduce controls to confirm payment will reach the intended beneficiary



High value payments

Have confidence that due to added controls, high value payments will reach the intended recipient



Direct Debit Mandates

Reduce the risk of direct debit mandates being returned due to wrong account details



One-time rebates/refunds

Authenticate account information when a rebate or refund is needed

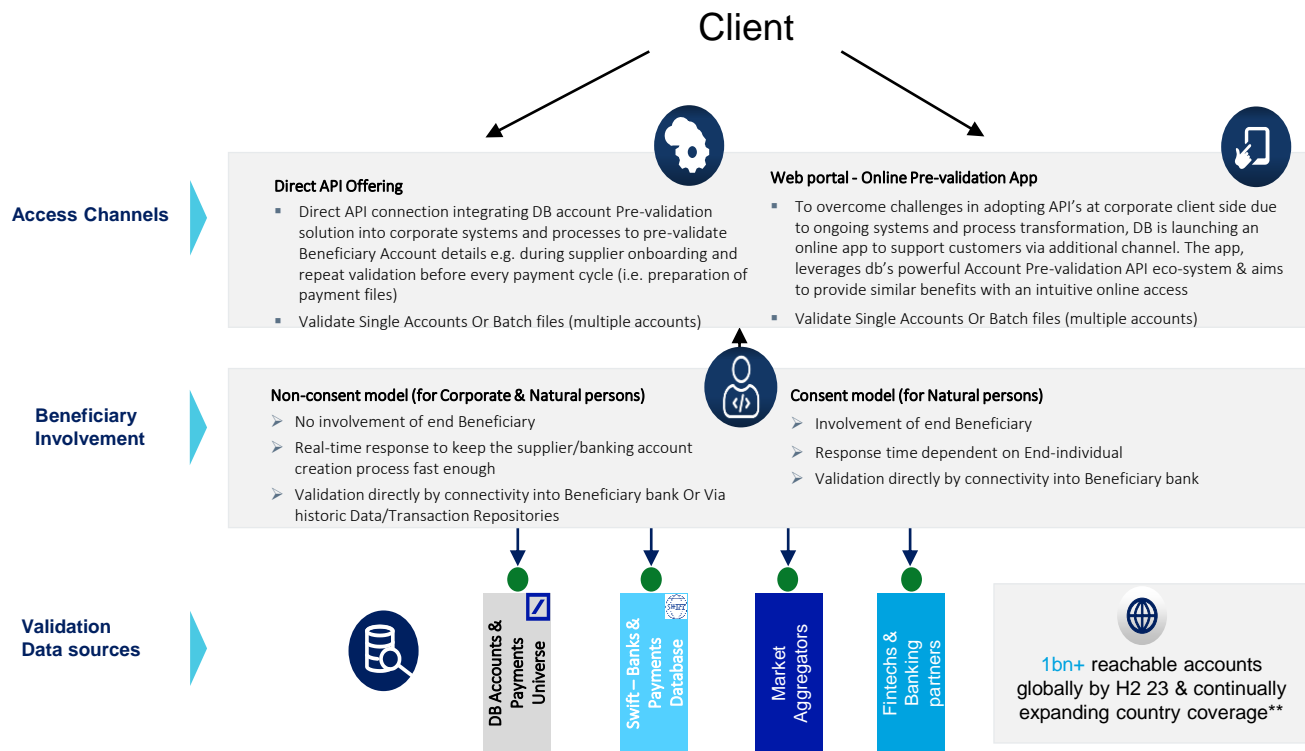


Payroll payments

Before actioning payroll payments, confirm that bank accounts of employees are still active

Solution Overview (Cont'd)

Check 'account existence' based on IBAN / Account Number, as well as 'account validation'* with Name, IBAN / Account Number



Solution Status & Roadmap

Features Live

- Direct API Offering
- Non-consent model
- Single account validation
- Data Source: DB Accounts, Swift – Banks & Payment Database, Aggregators
- Web portal – Online App (Available for piloting)

Roadmap

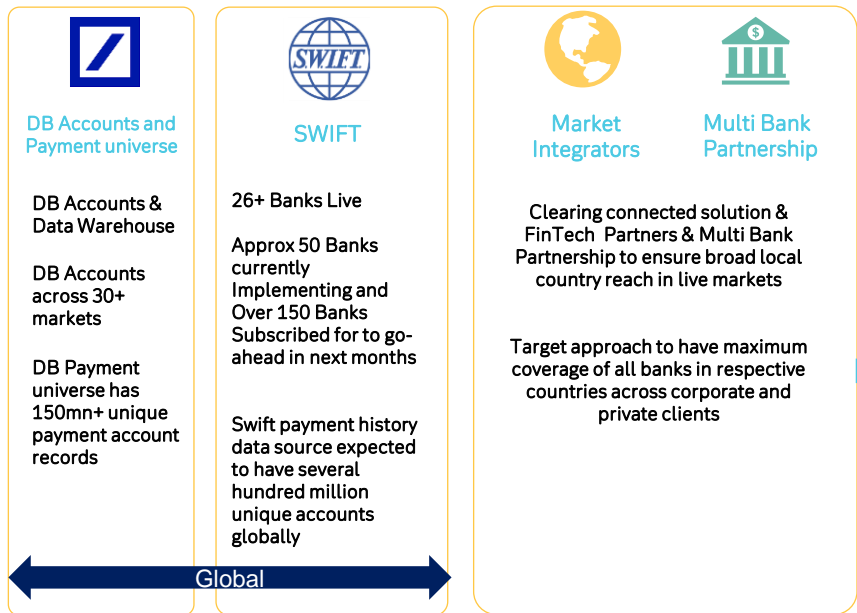
- Consent model – Q3/Q4 23
- Batch files – Q3/Q4 23
- Data Source: DB Payment Universe, New Aggregators Q3 23

Solution Overview (Cont'd)

Global Coverage Status & Roadmap



Validation Data Sources (Live)

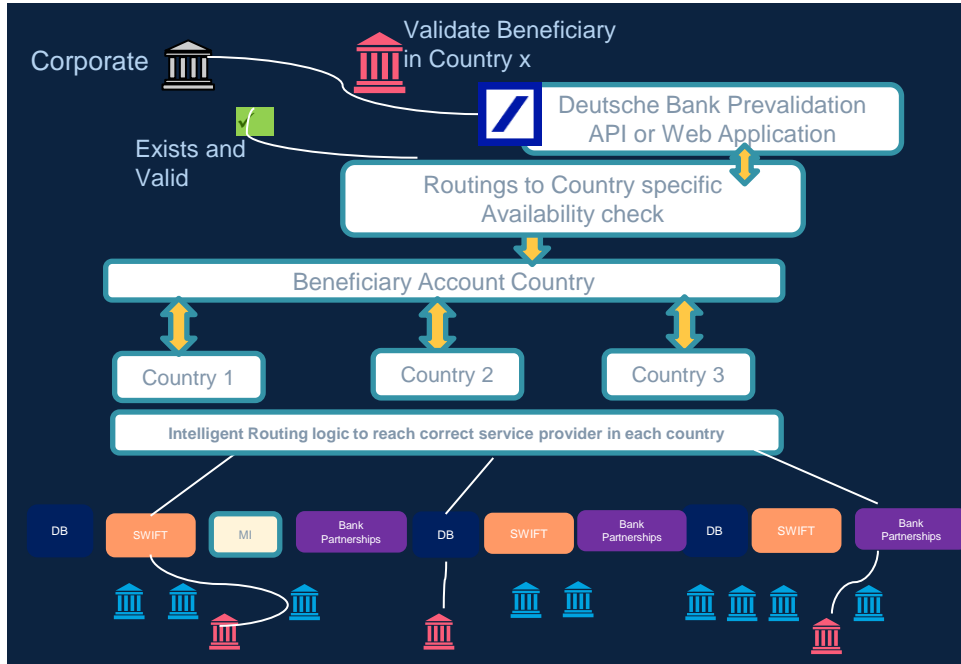


Country*	Availability Status	Coverage – in-country banks**
Indonesia	Live	>90%
Netherlands	Live	>90%
US	Live	90% (September 2023)
Germany	Live	75% - 90%
India	Live (Under Testing)	75% - 90%
Pakistan	Live (Under Testing)	75% - 90%
UK	Q3 2023	>90%
South Korea	Q3 2023	75% - 90%
France	Q3-Q4 2023	>90%
Italy	Q3-Q4 2023	>90%
Spain	Q3-Q4 2023	>90%
Brazil	Q3-Q4 2023	>90%
Mexico	Q3-Q4 2023	75% - 90%
Peru	Q3-Q4 2023	75% - 90%
Uruguay	Q3-Q4 2023	75% - 90%
Ecuador	Q3-Q4 2023	75% - 90%
Canada	Q1 2024	75% - 90%
Singapore	Q1-Q2 2024	75% - 90%
HK	Q1-Q2 2024	75% - 90%
Bangladesh	Q3-Q4 2023	75% - 90%
Costa Rica	Q3-Q4 2023	75% - 90%

**** The final coverage target is 95-100% in each country. DB along with its service partners are working in the backdrop to include the missing banks into the service. Certain banks are not yet participating as of yet and either they are technically in progress or in discussion phases.**

Solution Overview (Cont'd)

Global reach via seamless & simple integration



API connection or Web Application established seamlessly integrates into additional countries planned with **no further development at client side**.

Transparent expansion of coverage and Services through planned DB's partnership with SWIFT and Key Market Integrators globally.

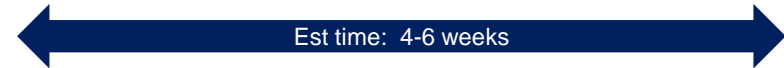
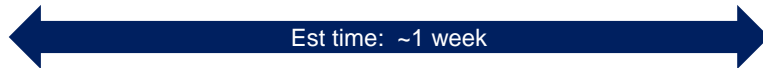
DB handles the **response back to client in a standard way**, when verification response received either from in-house, SWIFT or directly via various Market Integrators.

Easy Implementation



Web Application
▪ Sign Contract
▪ Share list of users to be set-up for access to pre-validation app
▪ Users to be set-up for web access by DB Implementation Team
▪ Go Live

API Integration
▪ Sign Contract
▪ DB to share API specs / format request
▪ Client to share security certificates to establish API connectivity between Client & DB <ul style="list-style-type: none">○ 2-way TLS○ Corporate Seal signing (payload encryption)○ Public key shared with Deutsche Bank
▪ Test environment – live
▪ Production environment – Go-live



Note: API format details, connectivity set-up etc. can go in parallel with contract signing. Contracts to be fully signed before production Go-Live

Dedicated DB Implementation & Product Support

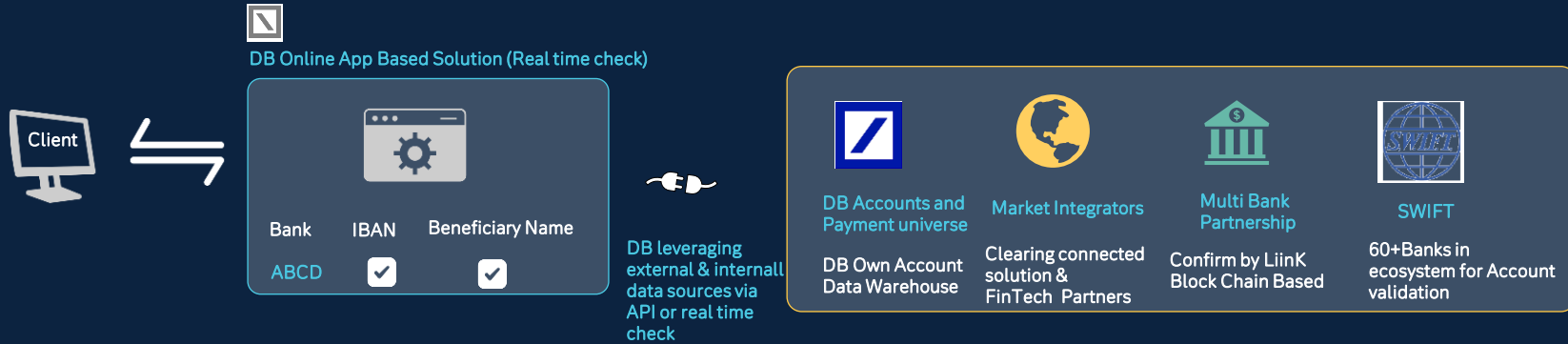
Summary



- Solution for [validating Bank accounts](#) (of vendors, customers) each time an account is added/changed - DB Solution would help to check account existence (IBAN / Account Number), account validation* (Name, IBAN / Account Number)
- Industry [leading Global Solution](#) – available for several key markets & continually expanding country coverage
- Available for use via [web application](#) within Autobahn** (no integration efforts for Clients), also available for use via [API](#)
- Validate accounts of both [corporates, individuals](#)
- [Real time validation](#) of accounts across DB & 3rd party banks ([multi-bank solution](#))
- [Strong banking and reference database](#)
- [Competitively priced](#) to ensure no impact on client budget resources

DB Account Validation – Web Application

Leveraging Real Time API's for global coverage on non-consent solution



Client Uploads file of Beneficiaries to validate within the app or uses manual keying in to populate beneficiary information's



DB invokes appropriate API to reach the data source real time and get responses



Real time responses from the data sources relayed back to online App to provide appropriate online status

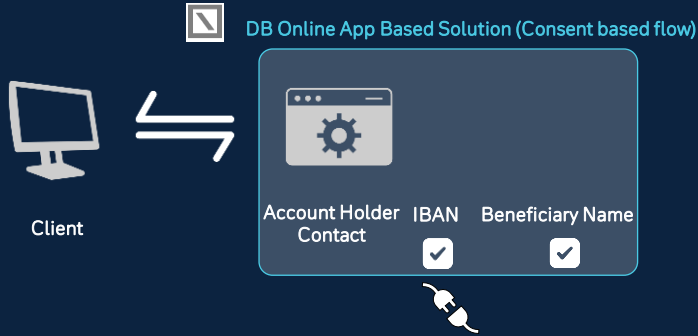


Corporate Clients can download the validated Account Information's and can re-purpose in their supplier master data

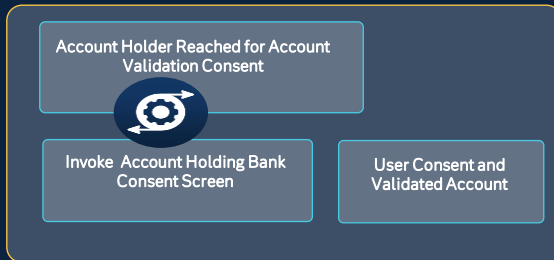
DB Account Pre-validation – Web Application

Validating Private/Retail Accounts using consent based validation (following GDPR compliance)

(Solution design under evaluation)



Third Party Partner API Leveraging Open Banking PSD2 framework



- Client Uploads file of Beneficiaries to validate within the app or uses manual keying in
- DB invokes the third-party* provider (API) leveraging the EU PSD2 Open Banking Framework connecting to 3000+Banks.
- DB reaches the account holder with consent request (via contacts provided by DB client in the app and with help of partners*)
- Account Holders provisioned to seamlessly invoke his Bank login** securely to provide consent on Account Details (Account Status, Name as per the Bank record)
- Consent on the Account Information relayed back to DB app reflecting the status in the APP
- Corporate Clients can download the validated Account Information's and can re-purpose in their supplier master data

DB Account Pre-validation – Web Application



DB Online App Beneficiary Account Entry via Screen

Account Pre-Validation

Beneficiary Account Validation

New Account Validation

Account Pre-Validation Inquiry Reason *

Choose account pre-validation inquiry reason

Account Number / IBAN *

Enter account number or IBAN

34 Characters Remaining

BIC / Clearing ID

BIC Clearing ID

Beneficiary Name (optional)

Enter beneficiary name

140 Characters Remaining

Close Validate Account

When user clicks on the button for initiating a new Account Validation Request, above screen will be shown and user needs to input the details for sending the validation request:

- Reason for Validation Request
- Account Number / IBAN
- BIC / Clearing ID
- Beneficiary Name (Optional)

DB Account Pre-validation – Web Application



Beneficiary Account Status check – Track Responses from the Ultimate beneficiary bank

When user selects any row, complete request – response details are displayed on the right of the screen

Beneficiary Name	IBAN / Account Number	Bank Name	BIC	Status
ThyssenKrupp AG	LU280019400644750000	JPMorgan Chase	TRSYDEFF	Response Received
Heraeus	NO9386011117947	Bank of America	EADSDEMM	Response Received
ZF Friedrichshafen AG	CY1700200128000001200527600	Wells Fargo	AGIDDEFBSSL	Response Received
Metro AG	DE89370400440532013000	Citigroup	EADSDEMPAY	Pending Validation
Talanx Group	DE89370400440532013000	PNC Financial Services	FTSBDEFA	Pending Validation
Freemius SE & Co. KGaA	BR150000000000010932840814P2	TD Group US Holdings	WWBADE3ADOT	Pending Validation
Volkswagen AG	IL170108000000012612345	Bank of New York Mellon	IMMODE5M	Response Received
Robert Bosch GmbH	LV97HABA0012345678910	Goldman Sachs	AARBDESWCLE	Response Received
Continental AG	LU120010001234567891	Citizens Financial	FTSBDEFASFI	Request Failed
ZF Friedrichshafen	NL02ABNA0123456789	Capital One Financial	BMPBDEF2	Response Received

RESPONSE INFORMATION

Account Match **Matched**

Beneficiary Name Match **Matched**

Last Transaction Date **12:14 PM, 08 Sep 2022**

Response Received **10 Sep 2022 / 11:03 AM**

Additional Info **-**

REQUEST INFORMATION

Beneficiary Name **ZF Friedrichshafen AG**

IBAN / Account Number **CY1700200128000001200527600**

Bank Name **Wells Fargo**

BIC **AGIDDEFBSSL**

Status **Response Received**

Author **sherlock.h@apple.com**

Sent At **11:03 AM, 10 Sep 2022**

DB Account Pre-validation

Response Types



Account match and name match via connecting to beneficiary bank:

Account Match:

Real-time checks:

MTCH: The account number from the request matches the account number at the beneficiary bank and is active

NMTC: The account number from the request does not match the account number at the beneficiary bank

AC01: Incorrect Account Number Format

AC05: Closed Account Number

AC99: Cannot confirm

Account name:

Real-time checks:

MTCH: The account name from the request matches the account name at the beneficiary bank.

Exact Case Sensitive Match

The service performs exact case sensitive match itself if the underlying Market Infrastructure has no matching capabilities

NMTC: The account name from the request does not match the account name at the beneficiary bank

PMTC: Partial Match / Close Match

NOAP: Not Applicable

NOTC: The service did not verify the name from the request, OR the name was not passed in the request

Check based on historical transactions:

WARN: If no direct connection available to validate the requested account, and validation performed based on historic transaction activity that happened on the requested account (if available). Then the prefix WARN is added to the status

WARN: MTCH: The account number from the request matches the account number at the beneficiary bank based on check performed basis historic transactions

WARN: NMTC: The account number from the request does not match the account number at the beneficiary bank

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