

RBI & TIS
Value Proposition and
mutual product-offering



Reinforcing the treasury-landscape

RBI and TIS have decided to join forces because of various reasons in the favor of our mutual clients

Partnership Strategic Goals



Extend reach

With this joint approach, we are increasing the reach of our products and services through integrating vice versa. We are both serving clients in various geographies and industries, which make sense to merge.

Client-Advantages

- A much broader product-suite and geographical reach of accounts
- Leading bank-products in client's preferred environments



Plug & Play

Create plug & play integration and onboarding of bank products and services for customers. We are minimising the efforts of onboarding new client-setups as well as single product enhancements. This saves time, efforts and money for all involved parties.

- Massive reduction of onboarding-efforts
- Reduction of financial investments
- Faster time to market
- Opportunity to test fast and adjust individual treasury setups



Co-Creation

Mutual creation of new products and services. RBI and TIS are both constantly enhancing their offerings. We are aligning our roadmaps and priorities and are focusing on mutual product-developments. Ready for next-gen API powered Cash Management: RBI to work closely with TIS to further innovate API offering & experience.

- Mutual products perfectly fitting together
- Certainty that providers are striving to be future-proof together
- Highest degree of innovation in the market



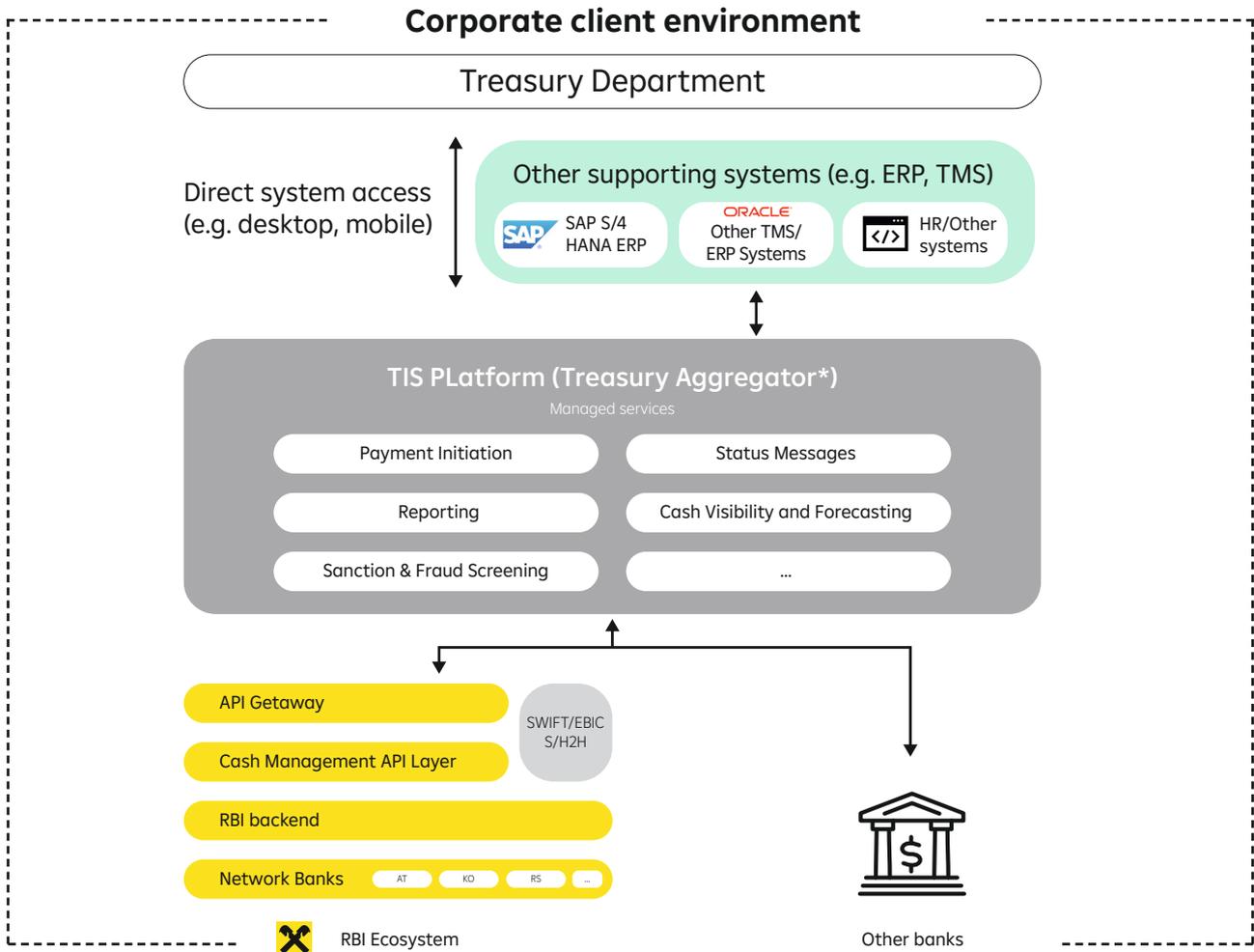
Market knowledge

Understand corporate needs, related challenges & available solutions to better support corporate clients and reinforce trusted advisors role.

- Tailored products based on experience from both technology as well as banking perspective
- Innovation through the eyes of a customer

The TIS-Platform ensures "Plug'n Play" experience for corporate clients using RBI APIs

Exemplified Connectivity Setup



Technical Benefits Of Using TIS With RBI APIs

- Corporate clients will be able to **seamlessly connect to API powered products/services of RBI** (+ other financial institutions) via TIS platform & manage their treasury operations centrally using their preferred system
- **Fast and standardised onboarding** due to proven processes
- **Enjoy CM securely & directly within your TIS system:** integrated with existing credentials and workflows
- **Unlock potential of RBI APIs & related benefits via TIS:** real-time visibility & functionality across RBI network based on growing offer APIs
- **Process & cost optimisation:** managed service for maintenance (e.g. technology mediation RBI & TIS) + optimisation based on APIs (e.g. smart automation by design in collaboration with TIS)
- **Manage RBI & other bank relations via one interface** (multibank view)

*Treasury Aggregators offer mature Corporates a single platform to manage all bank connections regardless of channel. Functionality can overlap with TMS but is more focusing on extended CM functionality (E-BAM, Payments, Statements). If a Treasury Aggregator is being used – it becomes single source of truth for core CM data and synchs with all other relevant systems

In a final discussion round we aligned on three API capabilities for our joint roadmap

We finally discussed this shortlist focusing on feasibility and possibility to adopt these pains & gains into API propositions. Based on our client's highest priorities, RBI & TIS decided to prioritize on the joint development roadmap the topics of **Pre-Validation services, EBAM services and Real-time / Ontime notifications.**



Core Cash Management product-suite (initial mutual offering)		Current offering
<p>Account information</p> <p>Real-time account information camt 052/052 (instead of MT940/942) covering account statements and balances</p> <p> Available  Available</p>	<p>Payment initiation</p> <p>Initiating different payment types (incl. instant) and currencies, and retrieval payment status</p> <p> Available  Available</p>	<p>Payment status</p> <p>Extensive payment status reporting for single or multiple transaction references</p> <p> Available  Available</p>



Cash Management extended	Roadmap	
<p>Payment pre-validation</p> <p>Pre-validation of beneficiary or payment formats/files before initiating payment</p> <p> TBC  TBC</p>	<p>EBAM</p> <p>Starting with information about accounts, users and account-rights. Then open/close accounts</p> <p> TBC  TBC</p>	<p>Real-Time / On-Time notifications</p> <p>Cash Notifications for Credit transactions and Cash visibility</p> <p> TBC  TBC</p>

Together, we are enabling RBI account information through the TIS interface in a much faster manner



Today's Treasury

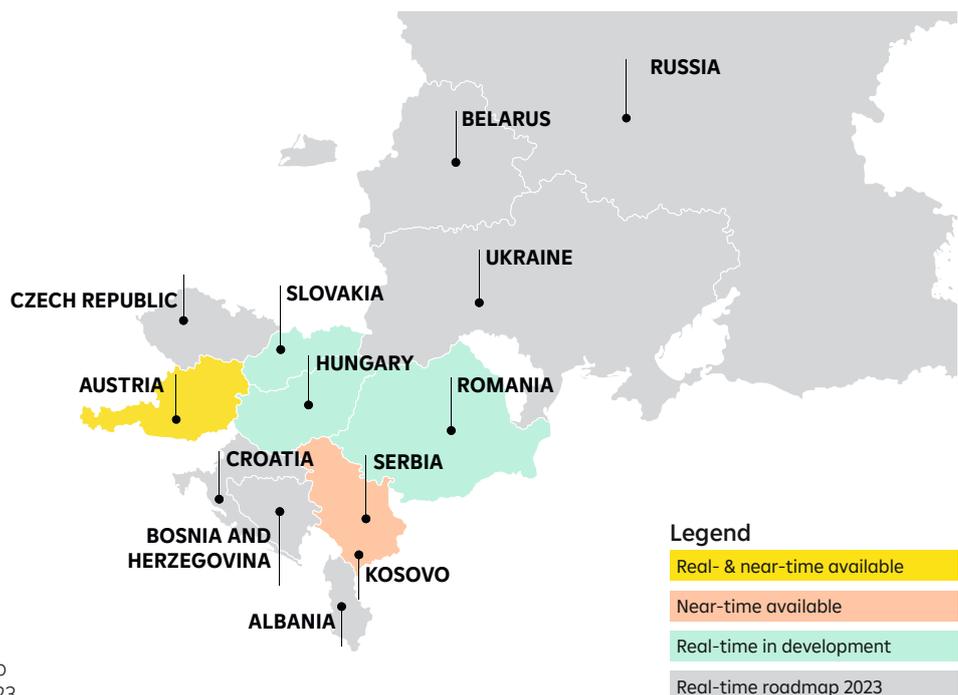
Normally, batch processing as well as end-of-day balances & statements are treasury's reality.



Tomorrow's Treasury

APIs will become the "new-normal" - an API is a set of programming code that enables automated & real-time data transmission between one system and another. This enables: Real-time & on demand payments & balances.

System Intervals			
Country	Payment Initiation API	Payment Information API	Account Statements API
Austria			Every 5 minutes
Kosovo			Every 10 minutes (real-time in 2023)
Hungary (Q1 2023)	Payment forwarded to processing	As soon as status message is generated (real-time)	As soon as the payment is processed (real-time)
Romania (Q1+Q2 2023)	Engine in real-time		As soon as the payment is processed (real-time)
Serbia		Within minutes of status message generation (near real-time)	Every 60 minutes (real-time in 2023)



Overview of RBI country coverage, to be fully "real-time" by the end of 2023

Overview: API channel activation is a Plug & Play approach and can be done with minimum client-efforts

API Activation in three steps



Client's to-do's with RBI



Client's to-do's with TIS



1. Pre-alignment & contracting

- Decide on accounts and services which should get enabled via Open APIs
 - Order the Open API connections by your dedicated account manager
 - Receive and sign the Open APIs Corporate Seal contract
- N.A.



2. Technical configuration

- Purchase a certificate from trusted CA and share the public key and trust chain with both RBI and TIS (detailed process on slide no. x)
 - Get credentials in the RBI API marketplace and share the ClientID with RBI (<https://api.rbinternational.com/home>)
 - RBI provides their trust chain and CN (if required)
- Set-up new bank link (details on the next slide) in TIS
 - Upload RBI client ID and client secret and RBI certificate in TIS
 - Select bank account and selection of statement format (intra-day or end-of-day)



3. Testing & final adjustments

- User testing to verify APIs fulfil requirements
 - Evaluation & adjustments
 - Full go-live
- Go-live

Note: Only the accounts you select are switched to Open API connection, the remaining ones stay with existing protocols (e.g. H2H or EBICS)

RBI: Activation of the technical environments

1. How To Activate The RBI Test Environment



1. Get a certificate for the Sandbox environment. It can either be a self-signed certificate or from a trusted Certificate Authority, which will be used for encrypted message exchange.



2. Register on the RBI marketplace (<https://api.rbinternational.com>)



3. Connect to the Cash Management sandbox environment of RBI (see next page)



4. Use the generated ClientID and ClientSecret for the authorization of the API

2. How To Activate The RBI Production Environment



1. Get a certificate from a trusted CA which will be used for encrypted message exchange



2. Connect to the Cash Management production environment of RBI in the marketplace (see next page)



3. Provide following data to RBI

- ClientID which was generated in the marketplace
- Public Key + Trust chain of the certificate



4. RBI needs to configure the ClientID, certificate and account information to enable access to the API



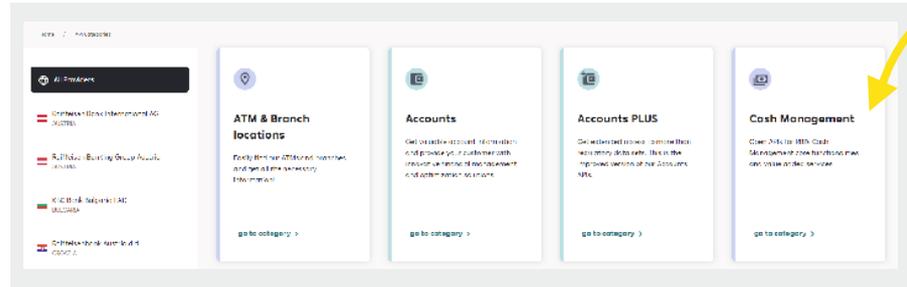
5. If required RBI will provide the Trust Chain, Common Name and Issuer of public key

RBI: How to connect to our two environments, derive credentials and select your APIs

Please register on the RBI marketplace (<https://api.rbinational.com>)

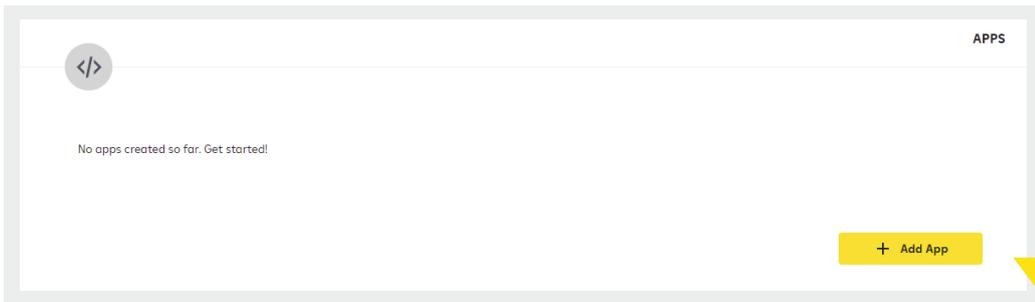
Step 1

Once registered, you can find all available Cash Management APIs by clicking on the APIs tab.



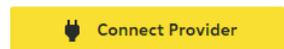
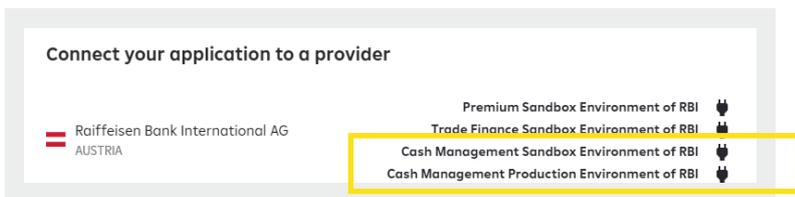
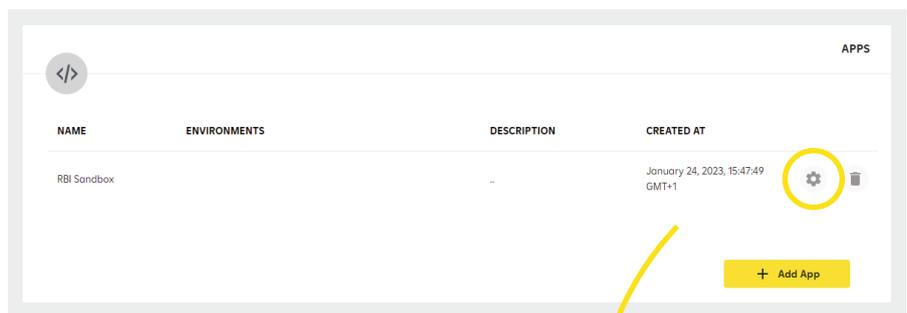
Step 2

Add a new application via the Apps tab



Step 3

Connect the desired environment* (sandbox or production)

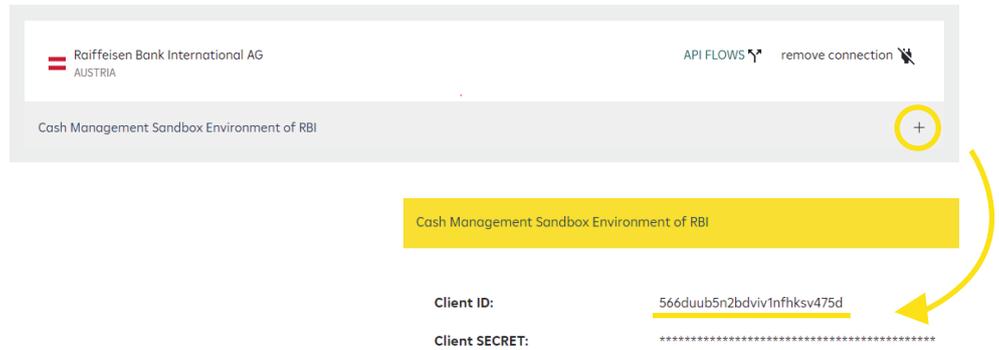


*Before connecting to the Production endpoint please make sure that you have created a nonprivate organization and are administrator of that organization

RBI: How to connect to our two environments, derive credentials and select your APIs

Step 4

The ClientID can be found by expanding the respective environment entry

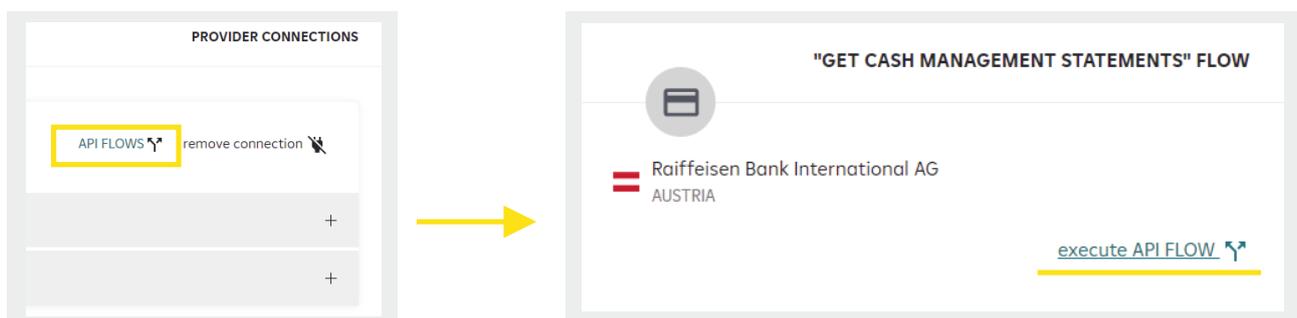


Step 5

API bundles can be added by expanding the „API bundle“ area and clicking on „Add API Bundle“ and choosing the desired API

Step 6

Click on API flows on the „Provider Connections“ page and execute the desired API flow



TIS: Switching RBI accounts to Open API connection within the TIS application is an easy operation

Step 1

Setting up a new RBI Account Statements bank link

Create Bank Link Configuration ✕

Title:

Bank Link: ▾

Legal Entity: ▾

Bank Link Details

Bank Accounts | **Additional Configuration** | Download Configuration | Pull Status | Send Status

Client ID:

Client Secret:

✔ SSL certificate configured

Signing certificate

Title: RBI TEST

Subject: CN=RBI TEST

Issuer: CN=RBI TEST

Serial: 1

Valid From: 10/26/2022

Valid To: 10/25/2072

Step 2

Import and manage RBI credentials and certificate

Step 3

Statement configuration: format, frequency, and status

Bank Link Details

Bank Accounts | Additional Configuration | **Download Configuration** | Pull Status | Send Status

Channel Id	File Format	Status	Time frame start (UTC)	Time frame end (UTC)	Fetch interval in mins	Fetches per day
<input checked="" type="checkbox"/>	CAMT.053.001.02	Active	0:00	23:45	30	1000

TIS: Switching RBI accounts to Open API connection within the TIS application is an easy operation

Step 4

Statement and data listing

BTM Monitors

Temporary Storage Monitor | **Account Statements Monitor** | SAP IDOCREF Monitor

Re-process File | Delete | Download File | Customize...

Incoming Date	Status	Error Message	File Type	Bank Link
11/15/2022 19:17 UTC+2	Processed		CAMT.053.001.02	rbi
11/09/2022 11:34 UTC+2	Processing caused an error	unknown bank account: BIC: RLNWATW...	CAMT.053.001.02	rbi
11/09/2022 11:34 UTC+2	Processing caused an error	unknown bank account: BIC: RLNWATWW BankCountry: Austria IBAN: C52C530001234567 AccountNumber: C52C530001234567		rbi
11/09/2022 11:13 UTC+2	Processing caused an error	unknown bank account: BIC: RLNWATWW BankCountry: Austria IBAN: C52C530001234567 AccountNumber: C52C530001234567		rbi

Summary for RBI ()

Summary | Report | **Account Statement**

Account Statements | Details | No Filter | Delete | Export | Generate Documents | Customize...

Booking Date	Opening Balance	Closing Balance	Difference	Total Inflow	Total Outflow	Statement Number	IBAN	Transactions	Bank Name
07/25/2022	+46,805.35	+46,519.33	-286.02	0.00	-286.02		AT113100002100975706	4	RBI

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