

How to Smart Accounts



Smart
Accounts

Author: Gabriela Guță

Reviewed by: Adelina-Gabriela Clondir

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Contents

1. Scope.....	5
2. Glossary.....	6
3. Postman Setup	8
4. Integrated banks	11
5. Account Information Consent flow.....	12
1. Partner's authentication	12
2. Get Banks	12
3. Check email	12
4. initConsent.....	12
5. Get Consent	16
6. Get Consent Status	19
7. Get Accounts.....	20
8. Get Balances.....	22
9. Get Transactions	23
10. GetTransactionDetails.....	26
11. GetAccountDetails	27
12. DeleteConsent.....	28
6. Banks flow	29
1. Banca Transilvania - Flow.....	29
2. ING Bank – Flow	45
3. Banca Comerciala Romana - Flow.....	57
4. BRD PJ (corporate) - Flow	69
5. BRD PF (individuals) - Flow.....	80
6. Raiffeisen Bank - Flow	90
7. CEC Bank - Flow.....	102
8. First Bank - Flow	118
9. UniCredit Bank - Flow	131
10. Revolut - Flow	145
11. OTP Bank - Flow	161
12. Garanti BBVA – Flow	174
13. Libra – Flow	187
7. Generic APIs (available in all banks' flows)	199
1. Banks	199
2. CheckEmail.....	202
8. Error mapping & handling linked to a consent's status	204

1. Scope

This document comes in addition to “Smart Accounts - Technical manual for intermediary_v1” for details regarding especially the functional flow. This document is addressed to Smart FinTech's and Smart Accounts' partners for better understanding over the AIS flow implemented and each bank particularities.

Please note that the document has been created by Smart FinTech and it cannot be disclosed or redistributed.

2. Glossary

PSD2 = Payment Service Directive 2, the revised version of the EU directive that was implemented in 2007

TPP = Third-Party Provider

Intermediary/Partner = The legal entity that integrates with Smart Accounts in order to access its client's account information, with their consent and in their benefit

X.509 = standard format for public key certificates, digital documents, that securely associate cryptographic key pairs with identities such as organisations, websites or individuals. In order to integrate with Smart Accounts, a TLS server certificate is needed (QWAC-Qualified Website Authentication Certificate)

PSU (Payment Services User) = the account's holder that gives his permission to account's information

AISP (Account Information Service Provider) = the third-party provider who collects an account holder's information. Smart FinTech is an AISP and also TPP

AIS (Account Information Service) = the service that provides the PSU a consolidated view of his finances: bank balance, transaction history from multiple bank accounts

API (Application Programming Interface) = Open API is a free-to-use, publicly available APIs (the ones shared by each bank on their developer portal site)

EBA (European Banking Authority) = the authority that ensures consistency in regulation and supervision across the European banking sector. For PSD2, they are responsible for issuing Regulatory Technical Standards and guidelines

SCA (Strong Customer Authentication) prescribes that authentication should occur using a combination of two factors from the categories:

- Knowledge – "something you know" (password, PIN, etc.)
- Possession – "something you have" (token, smartphone, application)
- Inherence – "something you are" (fingerprint, voice recognition)

eIDAS (Electronic Identification, Authentication and Trust Services) = a framework that sets standards for electronic identification and trust services. For PSD2 it's about SCA standards

SaaS (Software-as-a-service) = a type of software delivered online that enables users and companies to gain access to applications without the need to install or maintain software locally

GDPR (General Data Protection Regulation) = a regulation by which the European Parliament, the European Council and the European Commission intend to strengthen and unify data protection for individuals within the European Union

Open Banking ecosystem = refers to all elements that facilitate the operation of Open Banking (enabled by PSD2): API standards, the governance, systems, processes, security and procedures used to support participants

Decoupled (flow) authentication = the authentication of the PSU occurs outside of the interaction with the intermediary page (the PSU must log in in the internet banking application to authorise the consent)

Redirect (flow) authentication = the authentication of the PSU occurs through a redirect URL in the bank's page where he must complete his internet banking's credential to log in and authorise the consent

Resource = term used to also describe the consent

PF = personal account (retail)

PJ = corporate account (corporate/business)

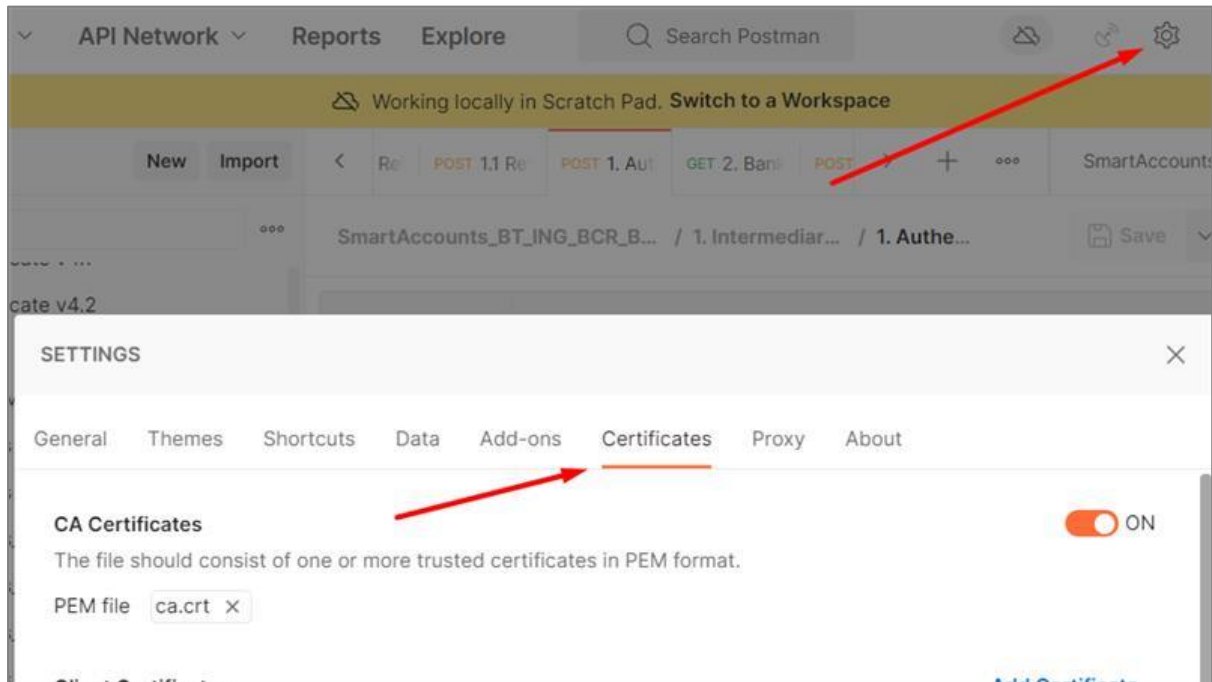
Sandbox (environment) = isolated copy of production environment designed for developers to try out APIs. Mimics all interactions with banks' APIs. It returns test (mock) data.

Production (environment) = environment used to return live data

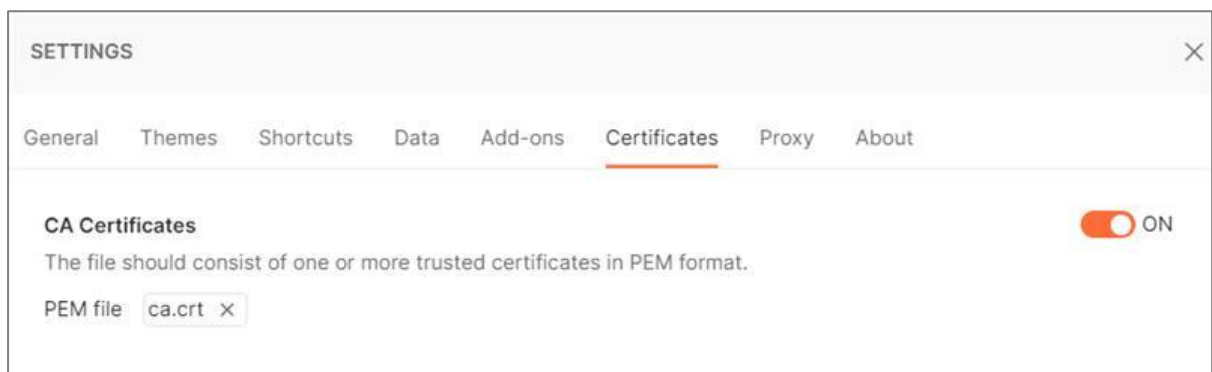
3. Postman Setup

The first step in setting up Smart Accounts is to add the related collections, certificates and environments to Postman. For the correct addition, the steps are shown graphically:

1. In the Settings menu, go to the "Certificates" tab

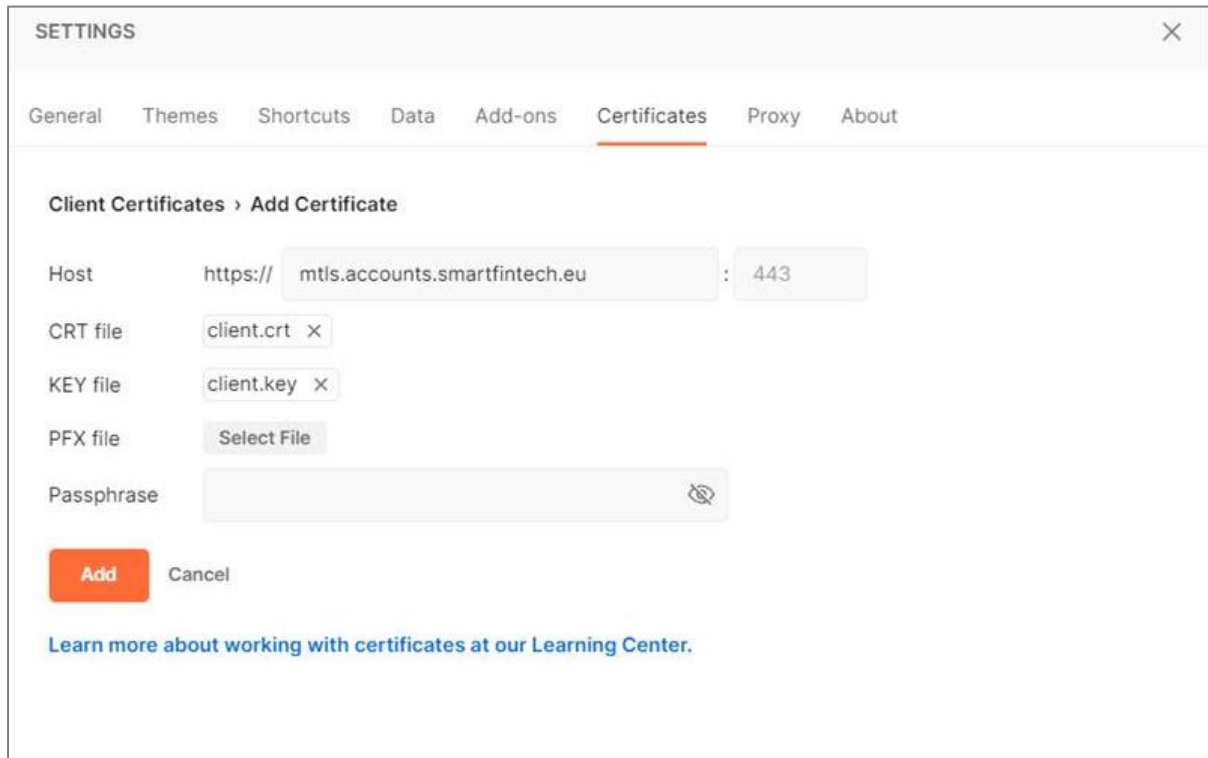


2. Add the file named "ca.crt" into CA Certificates field.

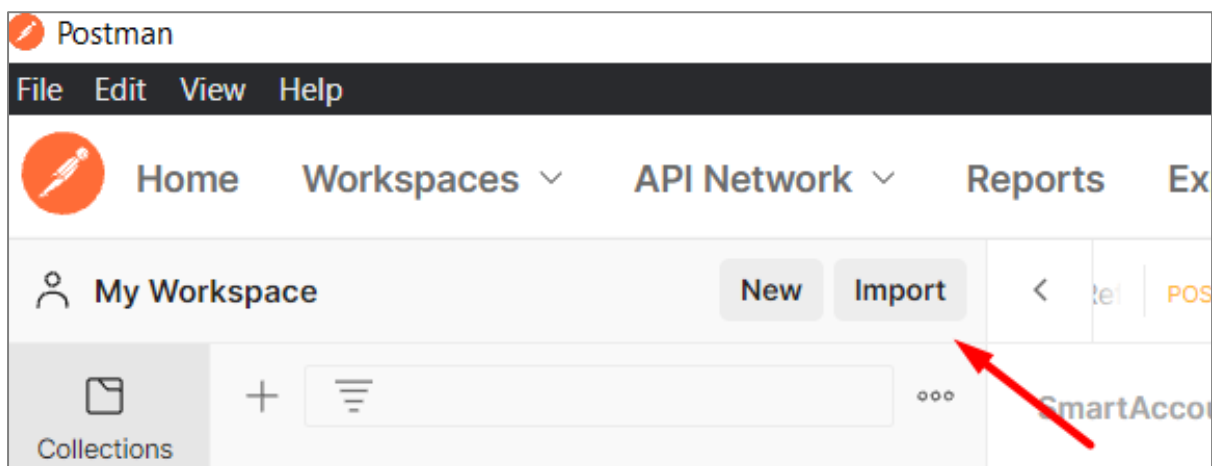


3. Press "Add Certificate", then:

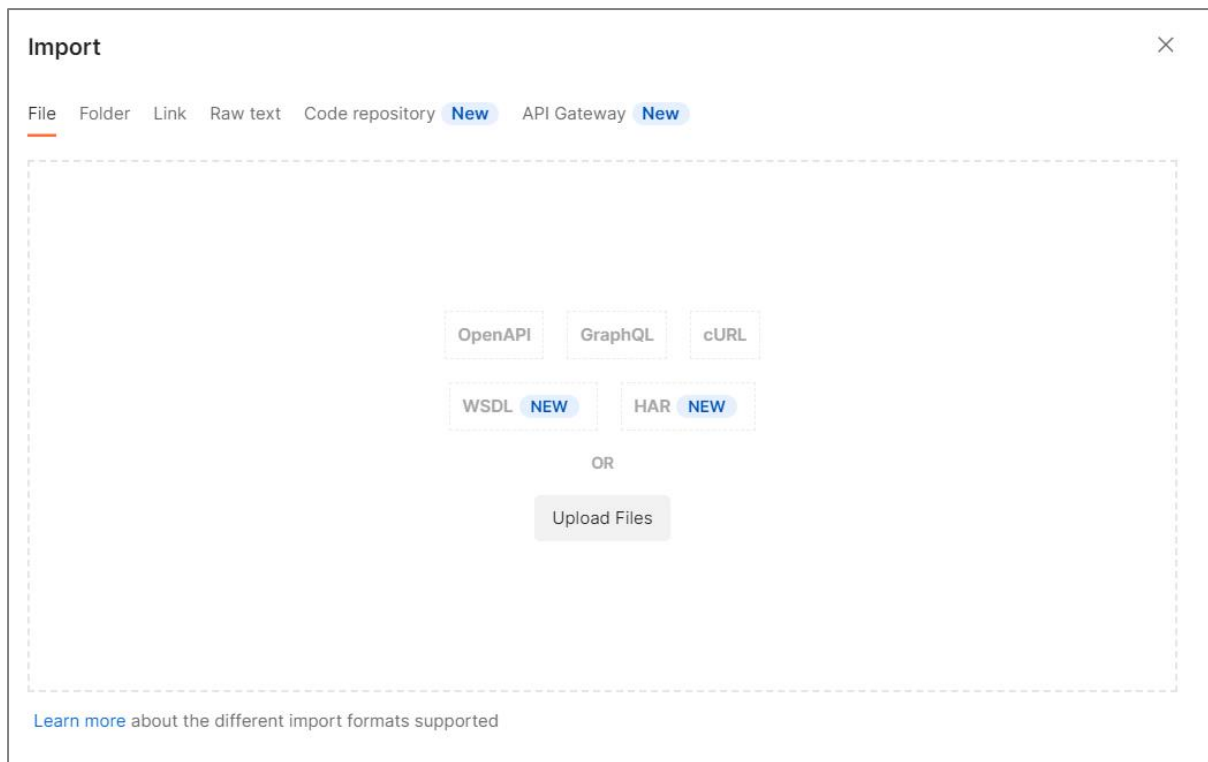
- add the file "client.crt" into "CRT file" field
- add the file "client.key" into "Key File" field



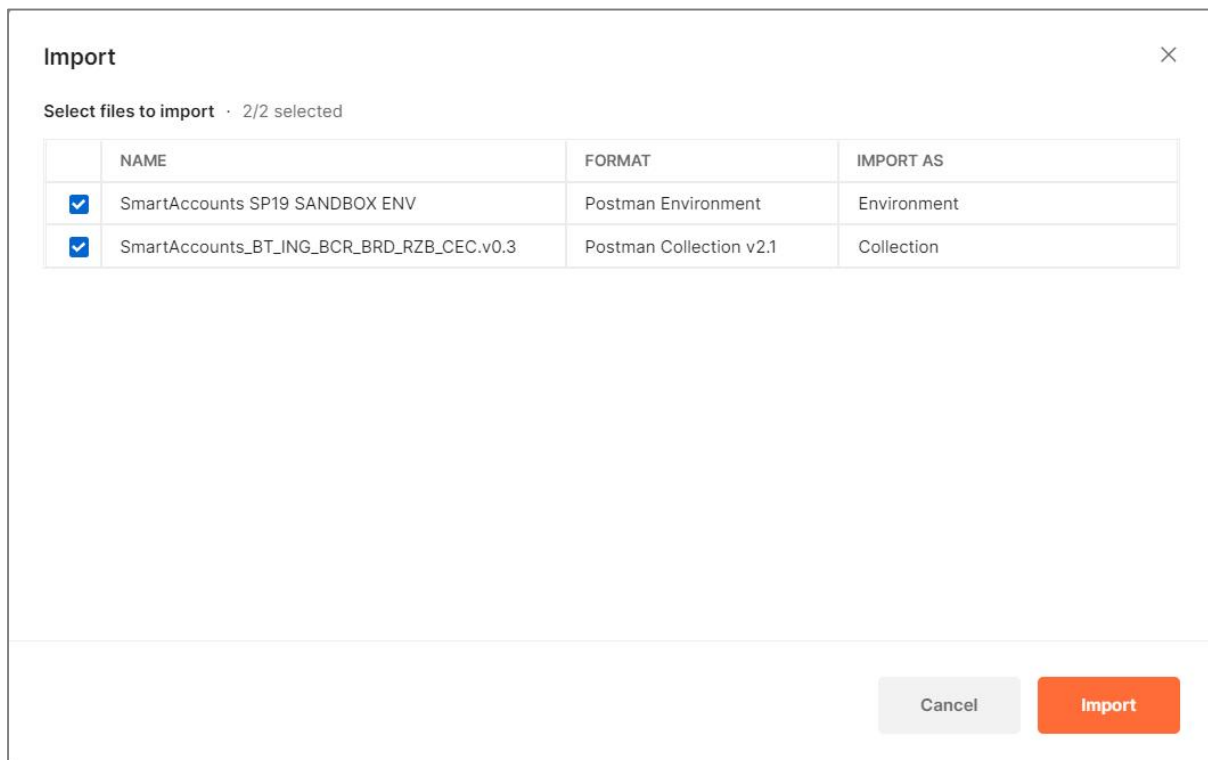
4. Press "Import" in order to add the collection and the environment.



You can drag and drop, or search for the exact path by clicking "Upload Files".



After the environment and collection have been successfully added, click "Import".



4. Integrated banks

The list of integrated banks with Smart Accounts (SA):

1. Banca Transilvania (BT) – redirect flow
2. Banca Comerciala Romana (BCR) – redirect flow
3. ING Bank (ING) – redirect flow
4. BRD Groupe Societe Generale (BRD) – decoupled flow
5. Raiffeisen Bank (RZB) – redirect flow
6. CEC Bank (CEC) – redirect flow
7. First Bank (FB) – redirect flow
8. UniCredit Bank (UNC) – redirect flow
9. Revolut (REV) – redirect flow
10. OTP Bank (OTP) – redirect flow
11. Garanti BBVA (GRT) – redirect flow
12. Libra (LIB) – redirect flow

1. Redirect flow - the user will be redirected in a webpage (from bank) to authorise the consent.

2. Decoupled flow - after "initConsent", the user must independently login and authorise the consent in the internet banking application.

2.1. For BRD with "PSU-ID-Type" = "PF" (personal accounts) the user will have a push notification and must use the code provided via Consent initialisation confirmation mail.

2.2. For BRD with "PSU-ID-Type" = "PJ" (corporate accounts), the user does not have any notification, he must login in the internet banking application and authorise the consent. No code is needed for PJ.

5. Account Information Consent flow

1. Partner's authentication (API: authenticate/rest/api/token)

Creating a new consent flow will always start with partner's authentication. The partner must successfully authenticate to obtain a pair of access and refresh tokens and the ID of the consent that has been initiated. The pair of access and refresh token must be saved and used for calling the APIs relative to the generated consent ID. **It cannot be used to access information about other consents.**

The access token expires after 5 minutes, so it must be renewed using the refresh token provided ("POST refreshToken API"). The refresh token expires after 90 days.

When the "refreshToken" API will be called, a new pair of access and refresh tokens will be generated (API: /authenticate/rest/api/refreshToken).

In order to access the account's information, the new pair of access and refresh tokens must be used. The previous "refreshToken" is invalidated and it cannot be used anymore.

In case the "client_ID" (generated and provided by Smart FinTech) is missing or the x.509 certificate is missing, the authenticate step cannot be finished and an error will be raised. If the certificate has expired or the "client_ID" is not the correct one, an "Unauthorised" error will be raised. For the rest of technical errors, please check the technical document.

2. Get Banks (API: /core/rest/api/banks)

"GET Banks" returns the list of integrated and available banks. Every bank object contains the object "requiredParameters" which includes the parameters "requiresPSUIDType", "requiresPSUID" and "requiresIban". The parameters are boolean type and the value "true" means that the respective parameter should be sent on request.

All API calls must be made using the "codeBank" specific for each bank, otherwise an error will be raised.

3. Check email (API: core/rest/api/checkPsuEmail)

"CheckEmail" API will check the PSU's email address in Smart Accounts' database. If the email address is already added, then this means that the PSU already has a Smart Accounts account. For this case, the user must be informed that he must accept the Smart Accounts Terms and Conditions.

If the user is not found in Smart Accounts' database, then the user will be informed that there will be an account created in the aforementioned database and he must agree with the Smart Accounts Terms and Conditions. The API's purpose is only to validate if the user must be informed about the Smart Accounts account's creation.

4. initConsent - Consent initialisation (core/rest/api/initConsent/{{internalConsentId}})

At this point, the consent can be prepared to be sent to bank for authorisation. In order to initialise a consent, Smart Accounts needs the following information:

1. API body:

- **codeBank** – For which **bank** the PSU wants to create a consent
- **periodOfValid** – **the period is with default value = 180 days**. If Smart Accounts receives a different value on this parameter, a "Bad request" error will be raised. After 180 days, the PSU must re-authorise in the bank's page. Please be aware that the re-authorisation in the bank's page will generate a new consent ID so you must keep the evidence of the PSU's consents to match the account information
- **psuEmail** – it is the e-mail address of the PSU this address and it will be used to inform the user about the consent initialisation
- **psuIntermediarId** – is the unique ID associated to the PSU by the partner systems
- **redirectURL** – is the page where the PSU will be redirected after he finishes the authorisation phase in the bank's page. It is recommended to be redirect in the partner's page
- **TCaccepted** – must be true, otherwise a "Bad request" error will be raised. It is partner's choice if for each new consent the user must check and agree to the Smart Accounts Terms and Conditions, or it can implement a different way of managing the PSU's T&C agreement

All the above parameters are mandatory for all banks!

Additionally, for RZB and OTP you need to add IBAN and currency on request. These banks have another parameter mandatory:

- **allAccounts** – with attributes "iban" and "currency"

Example of API body without parameter "allAccounts"

The screenshot shows a REST client interface with a POST request to `{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}`. The 'Body' tab is selected, and the format is set to 'raw'. The request body is a JSON object with the following fields:

```
1 {
2   "codeBank": "BRD",
3   "periodOfValid": 90,
4   "psuEmail": "aaa.aaaa@mail.com",
5   "psuIntermediarId": "123",
6   "redirectURL": "https://google.com",
7   "TCaccepted": true
8 }
```

Example of API body with parameter "allAccounts" (RZB and OTP)

The screenshot shows a REST client interface with a POST request to `{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}`. The 'Body' tab is selected, and the format is set to 'raw'. The request body is a JSON object with the following fields:

```
1 {
2   "allAccounts": [
3     {
4       "iban": "R003RZBR0000006999999999",
5       "currency": "RON"
6     },
7   ],
8   "codeBank": "RZB",
9   "periodOfValid": 90,
10  "psuEmail": "aaa.aaaa@mail.com",
11  "psuIntermediarId": "123",
12  "redirectURL": "https://google.com",
13  "TCaccepted": true
14 }
```

2. API header:

- **Content-Type** – mandatory for all banks
- **PSU-IP-Address** – **is mandatory and without this information, there is a limitation over the number of API calls that we can make (4 calls maximum per day)**
- **PSU-ID** – it is generated by the bank. Mandatory for BRD, RZB, OTP
- **PSU-ID-Type** – mandatory for:
 - BRD - accepted values are: "PF", "PJ" or "PFA"
 - RZB – accepted value: "PJ" – **only for corporate accounts**. **Do not send PSU-ID-TYPE if you want to initiate a consent for an individual person.**

Consent granularity

For the following banks, the user can select the list of accounts to grant access for in the bank's page:

- BT
- ING
- CEC
- First Bank
- UNC
- REV
- LIB

For the following banks, the user can grant a more granular consent:

- CEC – the user can choose to grant consent for: accounts and/or balances and/or transactions
- FB – the user can choose to grant consent for: accounts and/or balances and/or transactions
- UNC – the user can choose to grant consent for: account details and/or balances and/or transactions

For the following banks, the user does not have the option of selecting from a list the accounts to grant access for in the bank's page:

- BCR
- BRD
- GRT (only login and confirm login from mobile app)

For the following banks, the IBAN will be sent on "initConsent":

- RZB

- OTP

BCR does not have the concept of "consent". If you will check the BCR's developer portal, you will see that there is no consent API defined. BCR considered that the authorisation in the bank's page is enough for gaining access to PSU's account information for 180 days. Smart FinTech has built an "initConsent" and "GetConsent" API to normalise the process for all banks.

ING has the same behaviour as BCR.

Smart Accounts has created internally the resources "GetConsent" and "GetConsentStatus".

BRD has a decoupled flow - this means that there will be no scaOAuth link returned. For BRD with "PSU-ID-Type" = "PF" (personal account) it will return a code on "consentID" parameter. That code must be used by the PSU to authorise the consent in the bank's internet banking application. After the PSU creates a new consent, he will receive an email from Smart Accounts (the consent initialisation email) and it will also be mentioned the code that he needs to introduce in order to authorise the consent.

We kindly suggest that you let the PSU know beforehand that BRD has a decoupled flow and he must authorise the consent by logging in into the internet banking's page. For BRD PF you must let the PSU know that he needs the code to authorise the consent.

If the "PSU-ID-Type" = "PJ" or "PFA" then the "consentID" will return null/empty. The PJ or PFA have the PSD2 flow implemented in another bank application that doesn't require any one-time password or code. The user is the one that should know which application he uses for that account.

initConsent request example with BRD decoupled:

The screenshot shows a REST client interface for a POST request to the endpoint `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}`. The request is configured with the following headers:

KEY	VALUE	DESCRIPTION
☒ Content-Type	application/json	
☒ PSU-IP-Address	192.12.123.32	
☒ PSU-ID	13333330	
☒ PSU-ID-Type	PF	

initConsent response example with BRD decoupled:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED", (please check GetConsentStatus API for details regarding consent's statuses)
    "consentId": "800000022", (the code needed by user if the "codeBank" is BRD and PSU-ID-Type is "PF". If the "codeBank" is different from BRD or the "codeBank" is BRD and PSU-ID-Type is PJ or PFA then this parameter will be null/empty)
    "_links": {
      "scaOAuth": {
        "href": null (for BRD will be null. If "codeBank" is different from BRD, then here will be sent
```

```

        the link for consent authorisation of the consent)
    }
}
}
}

```

Creating multiple consents for the same user profile

Regarding **Banca Transilvania**, there is allowed a maximum of one consent per PSU and per bank's profile. If the user has a personal account and two business accounts, he will have 3 profiles: one per each business account and one per personal account. For this case, the user can have maximum 3 consents, one per each profile. In the bank's page, the PSU will have an additional screen where he can choose the profile and after that continue with the authorisation process. If the user will create a new consent for a profile that already has a valid consent, then the previous one will be invalidated by the bank and the user will have access only for the most recent consent created.

Regarding **BRD**, if the user is trying to initiate a consent for a profile that already has a valid consent, he will receive an error. The user must first delete the consent from the internet banking application and then he will be allowed to create another consent.

Creating multiple consents for the same PSU and the same bank account

The following banks allow maximum one consent per PSU per bank. If the user gives consent for an account which already has a valid consent, then the bank will invalidate the older consent and the user will have access only for the most recent consent created:

- BT
- RZB
- CEC
- UNC
- LIB
- OTP

For the following banks, the user can have multiple valid consents at the same time. We kindly suggest letting the user know (or even restrict) that is not recommendable to have multiple consents at the same time.

- ING
- BCR
- FB
- REV
- GRT

5. Get Consent (/core/rest/api/consent/{bank_name}/{internalConsentId})

The purpose of this API is to check the consent details and the list of available accounts. The list of available accounts means the list of accounts for which the user has granted access through the authorised consent.

1. For the following banks, the API response **will return the list of the selected accounts** by PSU and the **parameter "availableAccounts" will be null**:

- BT
- ING
- BRD (when PSU-ID-Type = PJ/PFA)
- RZB
- FB
- UNC
- OTP
- LIB

GetConsent response example:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO00BACX0000000000000000"
          "currency": "RON" (only for RZB and LIB)
        }
      ],
      "balances": [
        {
          "iban": "RO00BACX0000000000000000"
          "currency": "RON" (only for RZB and LIB)
        }
      ],
      "transactions": [
        {
          "iban": "RO00BACX0000000000000000"
          "currency": "RON" (only for RZB and LIB)
        }
      ],
      "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": 4,
    "lastActionDate": "2023-02-02",
    "validUntil": "2023-05-02",
    "recurringIndicator": true, (if "false", it means the respective consent is a one-time consent so it
                                can be used to call the API's resource only once). For the moment, SmartAccounts
                                makes the initConsent calls with default value set as "true" (required by bank)
    "combinedServiceIndicator": null, (only LIB implemented – flag present in Account Information
                                       Consent Request which allows the use of consentId in the subsequent Payment
                                       Initiation Request. It is relevant where account information services are needed
                                       within a payment initiation)
    "creationDate": null
  }
}
```

2. For the following banks, the API response **will NOT return the list of the selected accounts** by PSU and the **parameter "availableAccounts" will be null**:

- CEC – if only an account is selected, then its IBAN will appear in "accounts", "balances" and "transactions"
- REV

GetConsent response example:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": null,
    "lastActionDate": "2023-02-08",
    "validUntil": "2023-05-08",
    "recurringIndicator": null,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

3. For the following banks, the API response **will NOT return the list of the selected accounts** by PSU and the **parameter "availableAccounts" will have the value "allAccounts"**:

- BCR
- BRD (PSU-ID-Type = PF)
- GRT

GetConsent response example:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": "allAccounts"
    },
    "consentStatus": "Valid",
    "frequencyPerDay": 4,
    "lastActionDate": "2023-02-02",
    "validUntil": "2023-05-02",
    "recurringIndicator": true,
  }
}
```

```

        "combinedServiceIndicator": null,
        "creationDate": null
    }
}

```

6. Get Consent Status

(core/rest/api/consent/{{bank_name}}/{{internalConsentId}}/status)

This API will return the status of the consent sent on request. The status can also be checked on Get Consent API.

The list of possible statuses, according to Berlin Group Implementation Guidelines:

Status name	Description
received	The consent data have been received and are technically correct. The data is not authorised yet.
rejected	The consent data have been rejected e.g. since no successful authorisation has taken place.
partiallyAuthorised	The consent is due to a multi-level authorisation, some but not all mandated authorisations have been performed yet.
valid	The consent is accepted and valid for GET account data calls and others as specified in the consent object.
revokedByPsu	The consent has been revoked by the PSU towards the ASPSP.
expired	The consent expired.
terminatedByTpp	The corresponding TPP has terminated the consent by applying the DELETE method to the consent resource.

*The bold statuses are the ones we have encountered in production environment tests, until now.

GetConsentStatus response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "Valid"
  }
}

```

The bank's name must be according to the "codeBanks" from Get Banks, otherwise an error will be raised. **Validation performed on all resource APIs: If the bank's name and "internalConsentId" are not the same as the ones from "initConsent", an error will be raised.**

7. Get Accounts (core/rest/api/accounts/{{bank_name}}/{{internalConsentId}})

Returns a list of payment accounts to which an account access has been granted through the "initConsent" endpoint by the PSU. Parameter "PSU-IP-Address" is mandatory on API headers.

Example of GetAccounts headers

GET	((API_BASE_URI))/gateway/core/rest/api/accounts/BT/((internalConsentId))		Send
Params	Authorization	Headers (7)	Body
Pre-request Script			
Tests			
Settings			
Cookies			
Headers 6 hidden			
KEY	VALUE	DESCRIPTION	
☒ PSU-IP-Address	192.12.123.32		
Key	Value	Description	

GetAccounts response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "KI3RONCRT0060214301", (resourceID is needed to call the next resource APIs)
      "iban": "RO98BTRLRONCRT0ABCEFGHI",
      "currency": "RON",
      "name": "Cont de disponibil", (name of the account. For ING, REV and LIB it will be the same as owner's name. Detailed at each bank)
      "product": "Cont de disponibil", (Product name of the bank for this account, proprietary definition)
      "cashAccountType": "CurrentAccount", (ExternalCashAccountType1Code from ISO 20022)
      "status": null, (not available for all banks. Represents account's status – can be "enabled", "deleted", "blocked")
      "bic": null,
      "accountOfficerDescription": null, (only for LIB)
      "openingDate": null, (only for LIB)
      "customerSector": null, (only for LIB)
      "customerType": null, (only for LIB)
      "accountUsage": null, (only for LIB)
      "workingBalance": null, (only for LIB)
      "onlineActualBalance": null, (only for LIB)
      "balances": [
        {
          "balanceAmount": {
            "currency": "RON",
            "amount": 485.55
          },
          "balanceType": "expected", (described after the response example)
          "referenceDate": null, (indicates the date of the balance)
          "creditLimitIncluded": "false", ( indicates if the credit limit of corresponding
```



```

        account is included in the calculation of the balance, were applicable)
        "creditDebitIndicator": null
    },
    {
        "balanceAmount": {
            "currency": "RON",
            "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": null,
        "creditLimitIncluded": "true",
        "creditDebitIndicator": null
    }
],
"sortCodeAccountNumber": null
}
]
}

```

"balanceType" – The following balance types are defined:

1. **"closingBooked"**: Balance of the account at the end of the pre-agreed account reporting period. It is the sum of the opening booked balance at the beginning of the period and all entries booked to the account during the pre-agreed account reporting period.

For card-accounts, this is composed of

- invoiced, but not yet paid entries

2. **"expected"**: Balance composed of booked entries and pending items known at the time of calculation, which projects the end of day balance if everything is booked on the account and no other entry is posted.

For card accounts, this is composed of

- invoiced, but not yet paid entries,
- not yet invoiced but already booked entries and
- pending items (not yet booked)

3. **"authorised"**: The expected balance together with the value of a pre-approved credit line the ASPSP makes permanently available to the user.

For card-accounts:

- "money to spend with the value of a pre-approved credit limit on the card account"
4. **"openingBooked"**: Book balance of the account at the beginning of the account reporting period. It always equals the closing book balance from the previous report
 5. **"interimAvailable"**: Available balance calculated in the course of the account servicer's business day, at the time specified, and subject to further changes during the business day. The interim balance is calculated on the basis of booked credit and debit items during the calculation time/period specified

For card-accounts, this is composed of

- invoiced, but not yet paid entries,
 - not yet invoiced but already booked entries
6. **"forwardAvailable"**: Forward available balance of money that is at the disposal of the account owner on the date specified
 7. **"nonInvoiced"**: Only for card accounts, to be checked yet

8. Get Balances

(core/rest/api/accounts/{bankName}/{resourceId}/{internalConsentId}/balances)

Balance can be checked for each account - "resourceId" from GetAccounts must be sent. Parameter "PSU-IP-Address" is mandatory on API headers.

Example of GetBalances headers

GET

(({API_BASE_URI}))/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/({internalConsentId})/balances

Send

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

Headers

6 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

GetBalances response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO98BTRLRONCRT0ABCDEFGHI",
      "bban": "BARC12345612345678", (only for RZB)
      "currency": null (is null only for BT, FB, REV, OTP, LIB)
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": "2023-02-03",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null,
        "lastChangeDateTime": null, (This data element might be used to indicate e.g. with the
          expected or booked balance that no action is known on the account, which is not
          yet booked)
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}
```

```

    },
    {
        "balanceAmount": {
            "currency": "RON",
            "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": "2023-02-03",
        "creditLimitIncluded": "true",
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
    }
]
}

```

9. Get Transactions

(/core/rest/api/accounts/{bankName}/{resourceId}/{internalConsentId}/transactions)

The transactions for each account can be obtained ("resourceId" must be completed from GetAccounts).

Some banks have a limited period for which transactions can be retrieved:

Bank	Transactions' period	Notes
BCR	90 days	
BT	120 days	90 days capped in Sandbox by the bank
BRD	2 years	
OTP	90 days	
RZB	180 days	
ING, CEC, GRT, LIB, UNC, REV, FB, ALPH	unlimited	ALPH is capped at 18 months in Sandbox

Parameter "PSU-IP-Address" is mandatory on API headers.

The following parameters are requested:

Parameter	BT	BCR	ING	BRD	RZB	CEC	FB	UNC	REV	OTP	LIB	GRT
bookingStatus	M	M	N.R.	M	M	M	M	M	M	M	N.R.	M
dateFrom	M	M	M	M	M	M	M	M	M	M	M	M
dateTo	M	M	M	M	M	M	M	M	M	M	M	M

* M – mandatory

* N.R. – not requested

For Banca Transilvania, the "bookingDate" and "valueDate" have different values for PF and for PJ accounts. For PJ accounts, the "bookingDate" and "valueDate" are completed also with the payment initiation date. But when searching the transactions, if the payment initiation date is different from processing date, then it must be searched after processing date. The same behaviour is in the internet banking application.

Banks which have pagination will send on API response the parameter "next". When "next" has a value, then this means that another page with transactions is available. Furthermore, when "next" is null, then no other page with transactions is available.

If you want to move to the next page with transactions, then you should send on header the "next" parameter and its value (link).

Please note that "next" parameter is correlated with "dateFrom" and "dateTo" and any API call will raise an error if that period is changed. This means that if you want to retrieve transactions from other period, then you should make a new GetTransactions call with the new values for "dateFrom" and "dateTo" so that "next" could work with the new period.

Transactions are sent either bulk or with pagination, as following:

Bank	How the transactions are sent
BT	100 transactions / page
BCR	Bulk
CEC	Bulk
BRD	200 transactions / page
ING	20 transactions / page
REV	50 transactions / page
UNC	400 transactions / page
RZB	50 transactions / page
OTP	Bulk
LIB	Bulk
FB	Bulk
GRT	Bulk

To be noted also that **transactionID** is not sent for the following banks:

- BRD – the endToEndId can be used as an alternative;
- ING – not sent in most cases;
- UNC;
- OTP.

GetTransactions response:

```
{  
  "status": 200,  
  "messageStatus": "Success",  
  "payload": {  
    "account": {
```

```

        "iban": "RO98BTRLRONCRT0ABCDEFGHI",
    },
    "transactions": {
        "booked": [
            {
                "transactionId": "fbced129e8384109ae2023020522000000012", (null
                    only for BRD and UNC)
                "entryReference": null,
                "endToEndId": null, (Unique transaction reference given by the initiator of the
                    transaction)
                "bookingDate": "2023-02-05", (processing date. AS-IS: all banks except BT will
                    sort transactions after bookingDate.)
                "valueDate": "2023-02-05", (initiation date. AS-IS: only BT sort transactions after
                    valueDate)
                "executionDateTime": null, (only for ING)
                "transactionAmount": {
                    "currency": "RON",
                    "amount": 1200.19
                },
                "transactionType": null,
                "exchangeRate": [], (object can be null depending on transaction's type)
                "creditorName": "Dan Popescu", (it can be null depending on transaction's type)
                "creditorAccount": {
                    "iban": "RO98BTRLRONCRT0ABCDEFGHI"
                }, (it can be null depending on transaction's type)
                "debtorName": "Dana Popescu", (it can be null depending on transaction's type)
                "debtorAccount": {
                    "iban": "RO98BTRLEURCRT0ABCDEFGHI"
                }, (it can be null depending on transaction's type)
                "remittanceInformationUnstructured": "Merchant reference 202302
0522000000012", (MAX 140 TEXT – different transaction's details from core banking. It will be different from bank
                    to bank and depends on transaction's type. REV does not send it)
                "proprietaryBankTransactionCode": null, (code or description attributed by
                    the bank regarding transaction's type)
                "additionalInformation": null, (only for BCR and REV. For BCR it shows an
                    integer and for REV it shows information similar with the one from parameter
                    "remittanceInformationUnstructured")
                "transactionStatus": null, (only for REV)
                "creditDebitIndicator": null (only for REV)
            },
            {transaction no. 2, 3, etc.}
        ],
        "pending": [],
        "links": null
    },
    "balances": []
}

```

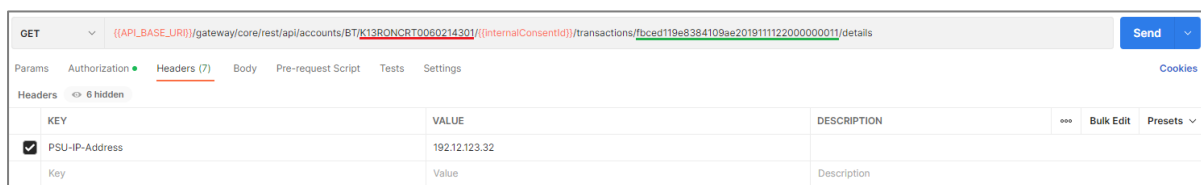
10. GetTransactionDetails

(/core/rest/api/accounts/{bankName}/{resourceId}/{internalConsentId}/transactions/{transactionId}/details)

This API returns the same information as GetTransactions but only for a specific transaction (you must complete the "transactionId" and "resourceId"). Parameter "PSU-IP-Address" is mandatory on API headers.

Only BT, BCR, CEC and GRT have implemented this API.

Example of GetTransactionDetails headers



KEY	VALUE	DESCRIPTION
☒ PSU-IP-Address	192.12.123.32	
Key	Value	Description

* **Red underline – "resourceId"**

* **Green underline – "transactionId"**

GetTransactionDetails response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "transactionId": "fbced119e8384109ae2019111122000000011",
    "entryReference": null,
    "endToEndId": null,
    "bookingDate": "2019-07-28",
    "valueDate": "2019-07-28",
    "transactionAmount": {
      "currency": "RON",
      "amount": 1100.2
    },
    "transactionType": null,
    "creditorName": "Dan Popescu",
    "creditorAccount": {
      "iban": "RO98BTRLRONCRT0ABCEFGHI"
    },
    "debtorName": "Dana Popescu",
    "debtorAccount": {
      "iban": "RO98BTRLEURCRT0ABCEFGHI"
    },
    "remittanceInformationUnstructured": "Merchant reference 2019072821000000011",
    "executionDateTime": null
  }
}
```

11. GetAccountDetails

(/core/rest/api/accounts/{bankName}/{resourceId}/{internalConsentId}/details)

This API is used to obtain account details for a specific account, not for all accounts. ING doesn't provide this API. You must complete the "transactionId". Parameter "PSU-IP-Address" is mandatory on API headers.

Only ING did not implement this API.

Example of GetAccountDetails headers

GET ⌵ <

GetAccountDetails response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "K13RONCRT0060214301",
    "iban": "RO98BTRLRONCRT0ABCDEFghi",
    "currency": "RON",
    "name": "Cont de disponibil",
    "product": "Cont de disponibil",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": "2023-02-06",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null
      }
    ]
  }
}
```

```

    {
      "balanceAmount": {
        "currency": "RON",
        "amount": 485.55
      },
      "balanceType": "expected",
      "referenceDate": "2023-02-06",
      "creditLimitIncluded": "true",
      "creditDebitIndicator": null
    }
  ],
  "sortCodeAccountNumber": null
}
}

```

12. DeleteConsent

This API can be used to revoke access given through a consent. Parameter "PSU-IP-Address" is mandatory on API headers.

Example of DeleteConsent headers

DELETE ⌵ ((API_BASE_URI))/gateway/core/rest/api/deleteConsent/BT/((internalConsentId)) Send ⌵			
Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies			
Headers ⌵ 6 hidden			
KEY	VALUE	DESCRIPTION	⋮ Bulk Edit Presets ⌵
☒ PSU-IP-Address	192.12.123.32		
Key	Value	Description	

DeleteConsent response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}

```

After calling the API DeleteConsent, any other called API will response with the following structure:

```

{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "TerminatedByTpp"
  }
}

```


6. Banks flow

All flows were made made using testing accounts on Sandbox environment and data provided by the banks.

For "initConsent" flow (after which PSU will interact with the bank to authorise the consent), if there are UI differences between SANDBOX and PROD environments, we will provide examples from both types of interaction with the bank.

1. Banca Transilvania - Flow

1. Authenticate

The screenshot shows a REST client interface with the following details:

- URL:** `{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token`
- Method:** POST
- Body Type:** form-data (selected)
- Body Content:**

KEY	VALUE	DESCRIPTION
☒ client_id	<code>{{client_id-partner}}</code>	
Key	Value	Description
- Buttons:** Save, Send, Cookies, Bulk Edit

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 4. InitConsent

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` Send

Params Authorization Headers (12) Body Pre-request Script Tests Settings Cookies

Headers 9 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.123.32				
☐						
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 4. InitConsent

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` Send

Params Authorization Headers (12) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON

Body

```

1  {
2    "codeBank": "BT",
3    "periodOfValid": 90,
4    "psuEmail": "catalin.zaman@itsmartsystems.eu",
5    "psuIntermediarId": "123",
6    "redirectURL": "https://www.google.com",
7    "TcAccepted": true
8  }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://apistorebt.ro/mga/sps/oauth/oauth20/authorize?state=eyJlbnMiOiJBMTI4Q0JDLUhTMjU2IiwiaWxnaWJjoizGlyIiwiaWY3R5IjoisldUIIn0..8NZgOhkz1NK3-XxGPFdhfA.AaoyUSHt0QRA8od2wnF0XGSJ2V8jqctcU0G8ol6GI70JKaTk63dww6lc4fEKhhYpW1QZgwcAk b65DVVFjun96N78acNBaVmwJSL0ACC42-MeNFsulf3dxHebiSEHTIQqSTjjcs9YzKhYRNAywhEmpCE8iaDQcoeZDePjrFdK4CXcSKFvI_ai_fah91wJwe0ie6RNvw0o7ziLrelJKFXTYLVGzEmtGlkhJfDMglAxZiUbarJC0PAjPbT6LCDbvQSIbt008I9Trw65qsW18FpJ6Zhzi0Ivn5SmUsAN4te6jLGDRYa9-UejYdo-sZoOI4yyErmhuTF46IveP5R71MLXa6OUHk7Z0bOfS39mC6nxycsweVP4EAOTcGis3p7UNz61QjyVAxwFULUzq2TSrAbVRglY3EtsCHYJJYjqB4rcsboWme8rPuhNJ6fRhbec2YuUYCJeZgnRCNPkrUfCDElNEpBqAvg4HHMcLgwxMULaG0byf5poiXPRTTuT35N3wXPJoGVslmmFJ70BOC8MsvgYt_8pwnWqCO5Os8leJuuqYi7-MrAjdPVA4XFzqCyMBR9tM1ZE8QlrVqwdke70__DzrSVED4IE3Idqyopw2VfEc5sjaW-RpyKeqpql8R1cJMJEkPzbXJi0NwHyLZzOJmJFdtGhYKBgrOvUF17VJy6H0Dgt56yi8FITXY6Boim95EylXFZz_JHhZC3UH8Kyssw3I46PLsruG7YcfPzMzs4G7hoYCx9P3Hgblf8SCs3U0sAAsfmJ1aVLq6EMuS0hiTXR6a90sE0a5gsejbyQDWY7VUFb6-GudcTafUV1xL8faE0lgM-WzvfPrPZbLO-VoSjh2WV5n2YBtg17N7rM5eI93SK1IHYWLVLxKroes-2ZTrLxNJGf4-s_9Fx-SryW3eu6zi5s746epMt7sTStzlihvdF2eG4qKBWdp5JyPpb4cm3xAutRWcMzVbW6HqrRsSWZLroX9ZchQPf

```

```

g6fawpoMTf34qIdBHxBWF3AzYjKjH4QkWOQJ5qH-
iWLRTSsqdn7AMoQyv4xHh7lpE_HYAkKqzLB3FThErSOpMR6m-
92EHfFCOqkCF5TNH_rcKrawzfaMsTw.FFV_ZGJQ2AiEgNVd4V6_jQ&response_type=code&client_id=
a36732b0-b710-4a14-813a-
88d0e3f3383a&redirect_uri=https://api.sandboxaccounts.smartfintech.eu/gateway/core/
rest/api/confirmation&scope=AIS:aic5d3c1e29ed16714bbf488red&code_challenge=J1rlcleI
UkGzSU6qbUTL0-
JMUgLf_XQlN3Jn8Dmci3w&code_challenge_method=S256&nonce=nonce_1655297699218"
    }
  }
}

```



Authentication

Choose the login method



[I forgot my NeoBT password](#)



Authentication

Choose the login method



Login ID
123

Password / Token NeoBT

For sure, check the first 2 digits again. They're the same? If they are not identical, do not add the code and call us at 0264 308 028.

Add the code received via SMS:

67

-

1234567

BACK

CONTINUE

0264 308028 • contact@btrl.ro



Through the Third Party Payment Services Provider platform **SmartAccounts DEMO** you are going to view the IBANs, account balance and transaction history for 90 days, from your following payment accounts opened with BT:

Select accounts

Current account

RO988TRLRONCRT0ABCEFGHI

Current account

RO988TRLLEURCRT0ABCEFGHI

☒ **Select all accounts**

If you are an individual customer, please note that your personal data regarding the accounts' IBANs, balance and transaction history will be processed by BT and will be disclosed to the Third Party Payment Services Provider.

RETURN TO TPP

After selecting accounts and pressing "RETURN TO TPP", thus authorising the consent for selected account(s), PSU or developer will be redirected to the established page.

3. GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 5. GetConsent
Save
...

GET
{{(API_BASE_URI)}/gateway/core/rest/api/consent/BT/{{(internalConsentId)}}
Send

Params
Authorization
Headers (9)
Body
Pre-request Script
Tests
Settings

Headers
7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	Content-Type	application/json				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO988TRLRONCRT0ABCEFGHI"
        }
      ]
    }
  }
}
```

```

    },
    {
      "iban": "RO98BTRLEURCRT0ABCDEFGHI"
    }
  ],
  "balances": [
    {
      "iban": "RO98BTRLRONCRT0ABCDEFGHI"
    },
    {
      "iban": "RO98BTRLEURCRT0ABCDEFGHI"
    }
  ],
  "transactions": [
    {
      "iban": "RO98BTRLRONCRT0ABCDEFGHI"
    },
    {
      "iban": "RO98BTRLEURCRT0ABCDEFGHI"
    }
  ],
  "availableAccounts": null
},
"consentStatus": "valid",
"frequencyPerDay": 4,
"lastActionDate": "2023-02-07",
"validUntil": "2023-03-09",
"recurringIndicator": true,
"combinedServiceIndicator": null,
"creationDate": null
}
}

```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 6. GetConsentStatus

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/BT/{{internalConsentId}}/status` Send

Params Authorization ● Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {

```

```

        "consentStatus": "valid"
    }
}

```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 7. GetAccounts

Save
...

GET
{{API_BASE_URI}}/gateway/core/rest/api/accounts/BT/{{internalConsentId}}
Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

Headers
7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "K13RONCRT0060214301",
      "iban": "RO98BTRLRONCRT0ABCDEFghi",
      "currency": "RON",
      "name": "Cont de disponibil",
      "product": "Cont de disponibil",
      "cashAccountType": "CurrentAccount",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [
        {
          "balanceAmount": {
            "currency": "RON",
            "amount": 485.55
          },
          "balanceType": "expected",
          "referenceDate": null,
          "creditLimitIncluded": "false",
          "creditDebitIndicator": null
        },
        {
          "balanceAmount": {
            "currency": "RON",
            "amount": 485.55
          }
        }
      ]
    }
  ]
}

```



```

        },
        "balanceType": "expected",
        "referenceDate": null,
        "creditLimitIncluded": "true",
        "creditDebitIndicator": null
    }
],
"sortCodeAccountNumber": null
},
{
    "resourceId": "K13EURCRT0060214301",
    "iban": "RO98BTRLEURCRT0ABCDEFGHI",
    "currency": "EUR",
    "name": "Cont de disponibil",
    "product": "Cont de disponibil",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
        {
            "balanceAmount": {
                "currency": "EUR",
                "amount": 1156.51
            },
            "balanceType": "expected",
            "referenceDate": null,
            "creditLimitIncluded": "false",
            "creditDebitIndicator": null
        },
        {
            "balanceAmount": {
                "currency": "EUR",
                "amount": 1156.51
            },
            "balanceType": "expected",
            "referenceDate": null,
            "creditLimitIncluded": "true",
            "creditDebitIndicator": null
        }
    ],
    "sortCodeAccountNumber": null
}
]
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 8. GetBalances

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/{{internalConsentId}}/balances` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				X
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO98BTRLRONCRT0ABCDEFghi"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": "2023-02-07",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      },
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": "2023-02-07",
        "creditLimitIncluded": "true",
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}
```

7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 9. GetTransactions

GET `{{(APL_BASE_URI)}}/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/{{(internalConsentId)}}/transactions?bookingStatus=booked&dateFro...` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	next	{{(next_page)}}				X
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 1. Intermediary API's BT / 9. GetTransactions

GET `{{(APL_BASE_URI)}}/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/{{(internalConsentId)}}/transactions?bookingStatus=booked&dateFrom` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2023-02-06			
☒	dateTo	2023-02-07			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 9. GetTransactions

GET `{{(APL_BASE_URI)}}/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/{{(internalConsentId)}}/transactions?bookingStatus=booked&dateFro...` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

```
1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }
```

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO98BTRLRONCRT0ABCDEFghi"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "fbced129e8384109ae2023020622000000012",
          "entryReference": null,
          "endToEndId": null,

```

```

        "bookingDate": "2023-02-06",
        "valueDate": "2023-02-06",
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "RON",
            "amount": 1200.19
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": "Dan Popescu",
        "creditorAccount": {
            "iban": "RO98BTRLRONCRT0ABCEFGHI"
        },
        "debtorName": "Dana Popescu",
        "debtorAccount": {
            "iban": "RO98BTRLEURCRT0ABCEFGHI"
        },
        "remittanceInformationUnstructured": "Merchant reference 202302
0622000000012",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    },
    {
        "transactionId": "fbced139e8384109ae2023020622000000013",
        "entryReference": null,
        "endToEndId": null,
        "bookingDate": "2023-02-06",
        "valueDate": "2023-02-06",
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "RON",
            "amount": 1300.18
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": "Dan Popescu",
        "creditorAccount": {
            "iban": "RO98BTRLRONCRT0ABCEFGHI"
        },
        "debtorName": "Dana Popescu",
        "debtorAccount": {
            "iban": "RO98BTRLEURCRT0ABCEFGHI"
        },
        "remittanceInformationUnstructured": "Merchant reference 202302
0622000000013",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    }

```

```

    },
    "pending": [],
    "links": {
      "next": {
        "href": "aHR0cHM6Ly9tdGxzLmFwaS5zbWFydHBnLmVlL3NtYXJ0ZmludGVjaC
9zYW5kYm94L3BzZDItYWlzcC92MS9hY2NvdW50cy9CVC9LMTNST05DUlQwMDYwMjE0MzAxL3RyYW5zYWN0a
W9ucz9kYXRlRnJvbT0yMDIzLTAxLTA2JmRhZGVUbz0yMDIzLTAyLTA3JmJvb2tpbmdTdGF0dXM9Ym9va2Vk
JnJlY29yZHNQZXJQYWdlPTEwMCZwYWdlTnVtYmVyPTI="
      }
    }
  },
  "balances": []
}
}

```

8. GetTransactionsDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 10. GetTransactionDetails

GET `{{(API_BASE_URI)}/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/((internalConsentId))/transactions/fbced119e8384109ae2019111122...` Send

Params Authorization ● Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "transactionId": "fbced119e8384109ae2019111122000000011",
    "entryReference": null,
    "endToEndId": null,
    "bookingDate": "2019-07-28",
    "valueDate": "2019-07-28",
    "transactionAmount": {
      "currency": "RON",
      "amount": 1100.2
    },
    "transactionType": null,
    "creditorName": "Dan Popescu",
    "creditorAccount": {
      "iban": "RO98BTRLRONCRT0ABCDEFghi"
    },
    "debtorName": "Dana Popescu",
    "debtorAccount": {
      "iban": "RO98BTRLEURCRT0ABCDEFghi"
    }
  },
}

```

```

    "remittanceInformationUnstructured": "Merchant reference 201907282100000001
1",
    "executionDateTime": null
  }
}

```

9. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 11. GetAccountDetails

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BT/K13RONCRT0060214301/{{internalConsentId}}/details` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "K13RONCRT0060214301",
    "iban": "RO98BTRLRONCRT0ABCDEFghi",
    "currency": "RON",
    "name": "Cont de disponibil",
    "product": "Cont de disponibil",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 485.55
        },
        "balanceType": "expected",
        "referenceDate": "2023-02-07",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null
      },
      {
        "balanceAmount": {

```

```

        "currency": "RON",
        "amount": 485.55
    },
    "balanceType": "expected",
    "referenceDate": "2023-02-07",
    "creditLimitIncluded": "true",
    "creditDebitIndicator": null
}
],
"sortCodeAccountNumber": null
}
}

```

10. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 12 DeleteConsent

DELETE `{{API_BASE_URI}}/gateway/core/rest/api/deleteConsent/BT/{{internalConsentId}}` Send

Params Authorization **Headers (8)** Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}

```

11. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 1. Intermediary API's BT / 11 RefreshToken

POST `{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization **Headers (10)** Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	{{internalConsentId}}				
☒	access_token	{{access_token}}				
	Key	Value	Description			


```

6Imh0dHA6Ly9rZXljbG9hay1hcHAtc2VydmljZTo4MDgwL2F1dGgvcmVhbGlzL3NtYXJ0YWNjb3VudHMiLC
JzdWIiOiJjNjFjODc1MC01MTNkLTQxNGYtOGQ5Ny1mZDY3NjMwYzdkZGUiLCJ0eXAiOiJPZmZsaW5lIiwia
XpwiJoidGVzdGNSaWVudHYxIiwic2Vzc2lvd19zdGF0ZSI6IjQ3NjM1MDNiLTAzYjYtNDI3Yi04ZGFhLWNk
NjBkZWVMTcxNSIsInNjb3BlIjoic2lhcHRhY2NvdW50c19jb25zZW50X2lkX2NsYWltOjEwMzgxMiJ9.Ge
1I6-6j_zt1JYFTqrPTMnR4LWv42h4Ops33MMsZMuQ"
}
}

```

In case the "accessToken" expires, the response will have the following structure:

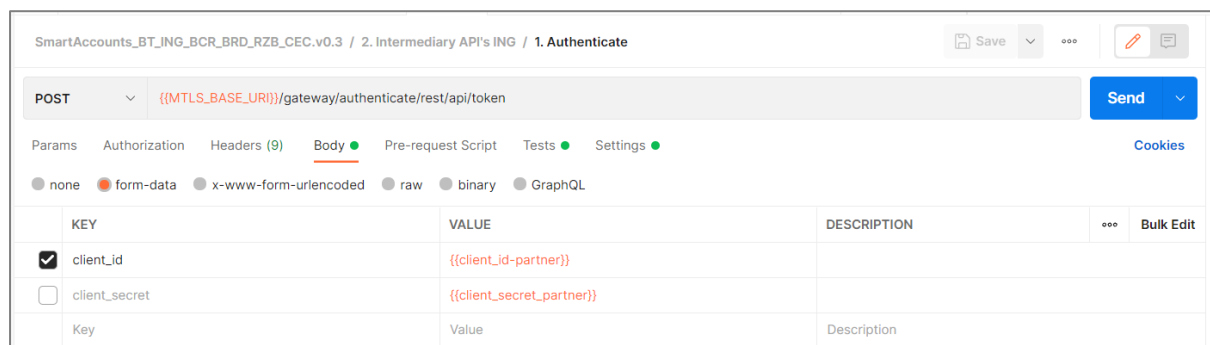
```

{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "Invalid access token"
  }
}

```

2. ING Bank – Flow

1. Authenticate



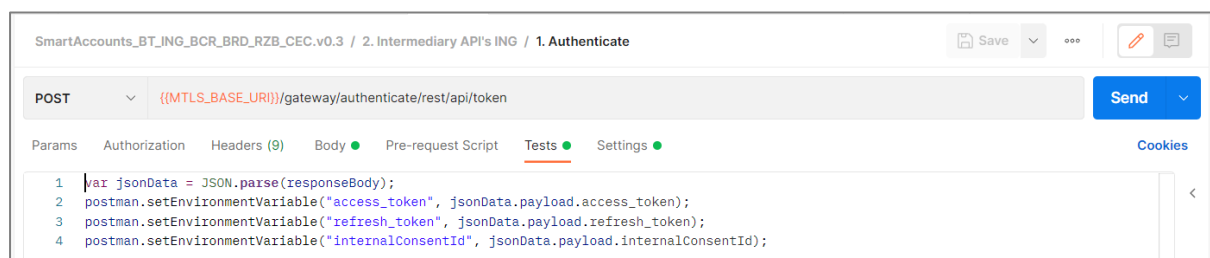
SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 1. Authenticate

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION
☒ client_id	{{client_id-partner}}	
☐ client_secret	{{client_secret-partner}}	
Key	Value	Description



SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 1. Authenticate

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

```

1 var jsonData = JSON.parse(responseBody);
2 postman.setEnvironmentVariable("access_token", jsonData.payload.access_token);
3 postman.setEnvironmentVariable("refresh_token", jsonData.payload.refresh_token);
4 postman.setEnvironmentVariable("internalConsentId", jsonData.payload.internalConsentId);

```

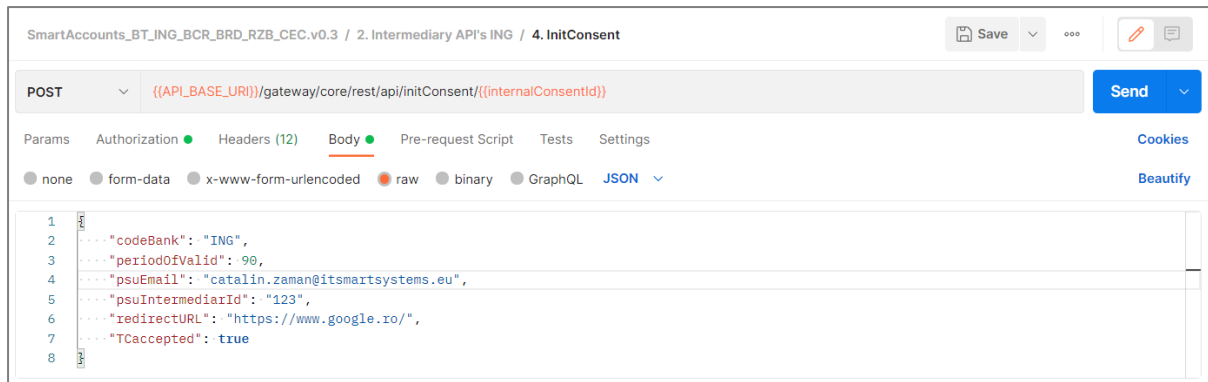
Response:

```

{
  "status": 200,
  "messageStatus": "SUCCESS",
  "payload": {
    "internalConsentId": 101686,

```

2. initConsent



Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://api.sandboxaccounts.smartfintech.eu/gateway/core/rest/api/authorization?internalConsentId=101686&bankRedirectUri=https://myaccount.sandbox.ing.com/granting/2e79dfe2-64f4-4274-abfb-fa5b06f804e4?state%3DZXlKcmFXUWlPaU14TVdFNl16VmlaaTB6Tm1VeUxUUxhaRF10T1RVek1DMDJORFJsTldFeE56ZGtNelFpTENKaGJHY2lPaUpTVXpJMU5pSjkuZXlKbGVlQWlPakUyTlRVek1ESXdORgtzSW1saGRDSTZNVFkxTlRjNU9EUTBPU3dpY3lJNk1rRkpVeU1zSW1NaU9pSXlaVG1WkdabE1pMDJOR1kwTFRReU56UXRZV0ptWWkxbVlUVm1NRFPtT0RBMFpUW1mUS0R3dFTTdXRDNWU1ELUhBdGdJWjVYNEctX3p0WXA3Y2FmQzhDX01TLUowOFczXzNpUjNVd2pyeWtaVEFOMDhldjhoa3lnVUNOb1F5d1NhTlBCV0Y1LUhidGFMMHRBdnhWcC1zWGHwZ05QdGZXeEo4NV15Q1RNZnowQmx3NTR6eHBKSjVZMHBNT2VrOHUxRGVYeWVQMWFibTlHNkZWdGxLWkVFek15LXJGVFpGSVlrcjZaT0VMM0xCeHJCelVEY2pYWldTWmRfNURyejdyc3BrVFZYOTZwWWIzMTR4c0FFTk1RVjhXaXVxS2xRcmQ1bW9MZm9Id2ZmTkNVZW1UTWY0SjBXdm1VjRNNkVxZDY5NFRyTndJajFORlcxVXBMcHFOYnpjT0NSZDNsLXo5U1JPUVRqWD1qZG1oYWR2cGNaTk5YmKvHN1J3Z2UxYW51a2RPNUIhQ2c%3D%26client_id%3D5ca1able-c0ca-c01a-cafe-154deadbea75%26redirect_uri%3Dhttps://api.sandboxaccounts.smartfintech.eu/gateway/core/rest/api/confirmation%26scope%3Dpayment-accounts:balances:view%20payment-accounts:transactions:view%26response_type%3Dcode"
      }
    }
  }
}
```

2.1 initCosentin SANDBOX – the example below shows how the developer will interact with bank's internet banking application

Welcome to your bank

Country of your ING account

ING Romania

CancelNext

With this permission you allow

- View balance information for a payment account
- View transaction information for a payment account

Test profiles

Please select test profile

☒ Popescu Corina
payment-accounts:balances:view
payment-accounts:transactions:view

☐ A Van Dijk
payment-accounts:balances:view
payment-accounts:transactions:view

☐ Alice and Bob
payment-accounts:balances:view
payment-accounts:transactions:view

☐ Jane Doe
payment-accounts:balances:view
payment-accounts:transactions:view

☐ John Doe
payment-accounts:balances:view
payment-accounts:transactions:view

☐ Peter Smith
payment-accounts:balances:view
payment-accounts:transactions:view

☐ Sarah Smith
payment-accounts:balances:view
payment-accounts:transactions:view

☐ W Van Dijk
payment-accounts:balances:view
payment-accounts:transactions:view

CancelNext

After selecting accounts and pressing "NEXT", thus authorising the consent for selected account, developer will be redirected to the established page.

2.2 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application

 Verifică întotdeauna că adresa de internet începe cu **https://myaccount.ing.com**

 Prima dată când folosești contul tău Home'Bank altundeva? Stai fără griji, vei fi asistat pas cu pas pentru configurarea contului.

Bine ai venit! Intră în contul tău ING

☒ ING Home'Bank

☐ ING Business

Nume utilizator Home'Bank

Parola Home'Bank

Login

 Ai nevoie de ajutor? Sună la [031 406 24 64](tel:0314062464)



Acordă acces

 Permisivitatea de a accesa anumite conturi de plată va fi valabilă pentru **90 zile**.



Ești pe cale să permiți SMART FINTECH S.R.L. accesul la:

- Tranzacții anterioare
- Soldul contului tău

Selectează cont(uri)

☐ Co
RO

☐ Co
RO

☐ Co
RO

Renunță

Continuă

Dai acces SMART FINTECH S.R.L. la tranzactiile tale anterioare, soldul contului tau, pana la 10.05.2023. Pentru contul(urile) RO1

Un ultim pas de securitate

i Completează codul primit prin SMS pe numărul de telefon asociat contului tău de Home'Bank.

Cod primit prin SMS

Aprobă **Renunță**

☎ Nu ai primit SMS-ul sau ai întrebări? Sună la [031 406 24 64](tel:0314062464)

After inserting the code received via SMS and pressing "Aprobă", thus authorising the consent for selected account(s), PSU will be redirected to the established page.

3. GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 5. GetConsent

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/ING/{{internalConsentId}}` **Send**

Params Authorization **Headers (9)** Body Pre-request Script Tests Settings **Cookies**

Headers **7 hidden**

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	Content-Type	application/json				x
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": "allAccounts"
    },
    "consentStatus": "Valid",
    "frequencyPerDay": 4,
    "lastActionDate": "2023-02-07",
    "validUntil": "2023-05-07",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

```
}  
}
```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 6. GetConsentStatus

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/ING/{{internalConsentId}}/status` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{  
  "status": 200,  
  "messageStatus": "Success",  
  "payload": {  
    "consentStatus": "Valid"  
  }  
}
```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 7. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/ING/{{internalConsentId}}` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{  
  "status": 200,  
  "messageStatus": "Success",  
  "payload": [  
    {  
      "resourceId": "37608c1d-4d6a-40a2-850c-2462f2e26e80",  
      "iban": "RO44INGB0000999908767270",  
      "currency": "RON",  
      "name": "Popescu Corina",  
      "product": "Compte Courante",  
      "cashAccountType": null,  
      "status": null,  
      "bic": null,  
    }  
  ]  
}
```

```

        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    },
    {
        "resourceId": "1e19978f-b07c-4018-960f-0150bcefd317",
        "iban": "",
        "currency": "EUR",
        "name": "Popescu Corina",
        "product": "Compte Courante",
        "cashAccountType": null,
        "status": null,
        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
]
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 8. GetBalances

GET `{{APLBASE_URI}}/gateway/core/rest/api/accounts/ING/1e19978f-b07c-4018-960f-0150bcefd317/{{internalConsentId}}/balances` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "",

```



```

        "currency": "EUR"
    },
    "balances": [
        {
            "balanceAmount": {
                "currency": "EUR",
                "amount": 1073.86
            },
            "balanceType": "expected",
            "referenceDate": null,
            "creditLimitIncluded": null,
            "creditDebitIndicator": null,
            "lastChangeDateTime": "2019-02-22 09:16:54",
            "lastCommittedTransaction": null,
            "transactionStatus": null
        }
    ]
}

```

7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 9. GetTransactions

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/ING/37608c1d-4d6a-40a2-850c-2462f2e26e80/{{internalConsentId}}/transactions?dateFrom=2...` Send

Params ● Authorization ● Headers (9) ● Body ● Pre-request Script ● Tests ● Settings ● Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
☒ next	{{next_page}}				X
Key	Value	Description			

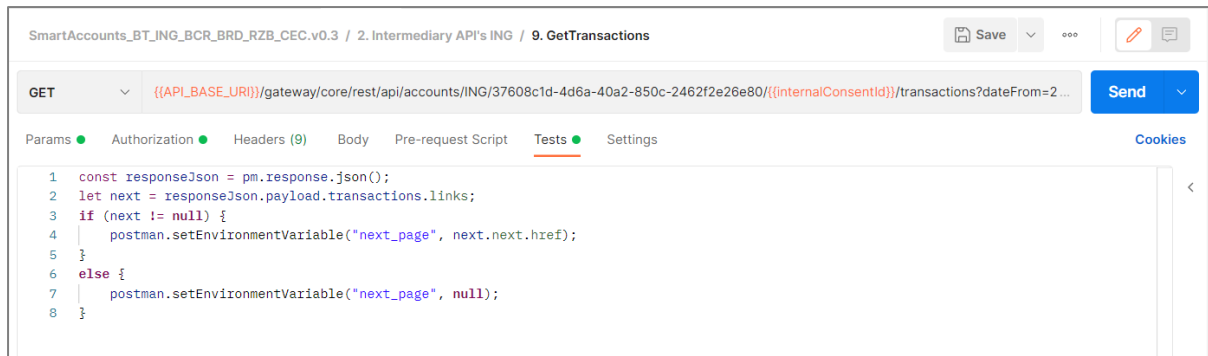
SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 9. GetTransactions

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/ING/37608c1d-4d6a-40a2-850c-2462f2e26e80/{{internalConsentId}}/transactions?dateFrom=2...` Send

Params ● Authorization ● Headers (9) ● Body ● Pre-request Script ● Tests ● Settings ● Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒ dateFrom	2022-05-10			
☒ dateTo	2022-05-12			X
Key	Value	Description		



Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO44INGB0000999908767270",
      "currency": "RON"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "1225",
          "endToEndId": "NOTPROVIDED",
          "bookingDate": "2021-03-30",
          "valueDate": null,
          "transactionAmount": {
            "currency": "RON",
            "amount": -100.0
          },
          "transactionType": "Cash withdrawal",
          "exchangeRate": [],
          "creditorName": null,
          "creditorAccount": {
            "iban": null
          },
          "debtorName": "",
          "debtorAccount": {
            "iban": ""
          },
          "remittanceInformationUnstructured": "Unstructured remittance information example",
          "proprietaryBankTransactionCode": null,
          "additionalInformation": null
        }
      ],
      "pending": [],
      "links": null
    }
  }
}

```

}

8. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 10 DeleteConsent

DELETE `{{API_BASE_URI}}/gateway/core/rest/api/deleteConsent/ING/{{internalConsentId}}` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

9. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 1.1 RefreshToken

POST `{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ internalConsentId	<code>{{internalConsentId}}</code>				
☒ access_token	<code>{{access_token}}</code>				
Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 2. Intermediary API's ING / 1.1 RefreshToken

POST `{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒ refresh_token Text	<code>{{refresh_token}}</code>			x
☒ client_id	<code>{{client_id-partner}}</code>			
Key	Value	Description		

}

2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 4. InitConsent

POST

{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}

Send

Params Authorization Headers (12) Body Pre-request Script Tests Settings

none form-data x-www-form-urlencoded raw binary GraphQL JSON

```
1 {
2   "codeBank": "BCR",
3   "periodOfValid": 90,
4   "psuEmail": "catalin.zaman@itsmartsystems.eu",
5   "psuIntermediarId": "123",
6   "redirectURL": "https://www.google.io/",
7   "TCaccepted": true
8 }
```

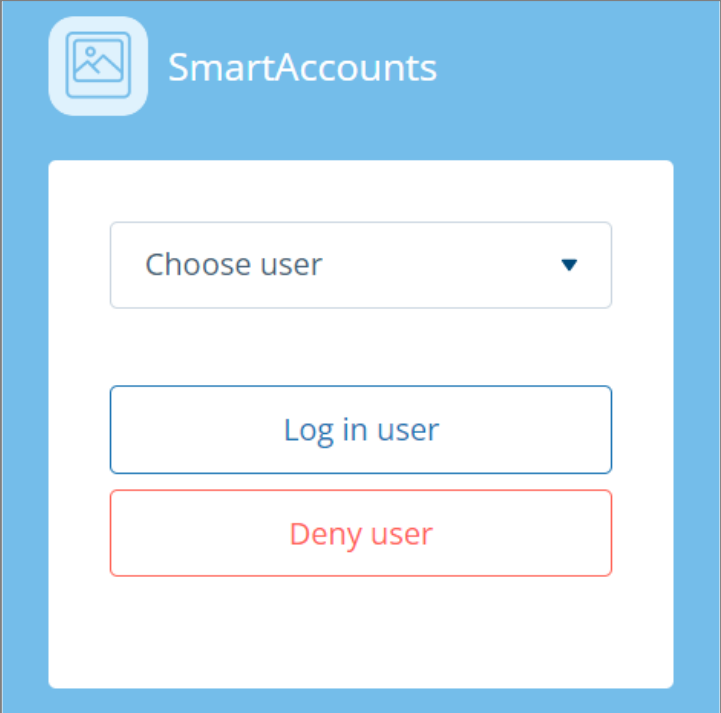
```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "links": {
```

```

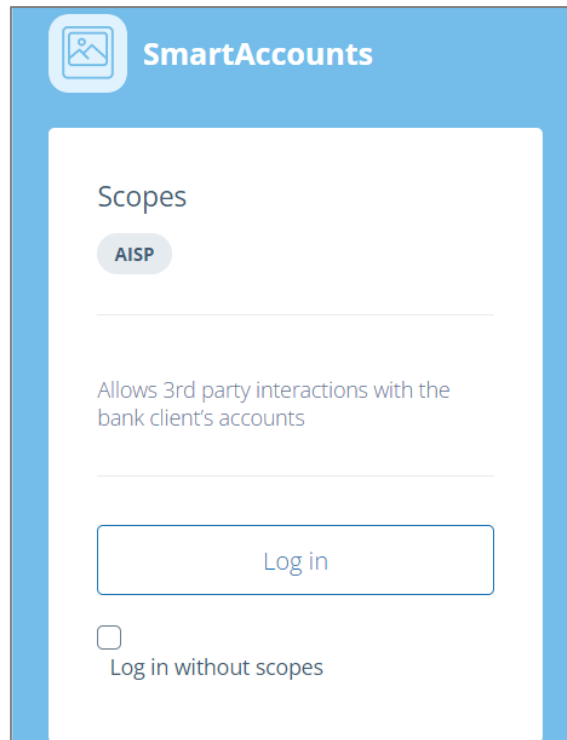
"scaOAuth": {
  "href": "https://webapi.developers.erstegroup.com/api/bcr/sandbox/v
1/sandbox-
idp/auth?state=eyJlbmMiOiJBMTI4Q0JDLUhTMjU2IiwiYWxnIjoizGlyIiwiY3R5IjoisldUIIn0..7nG
E09UoFJ5d_Ll828va8g._6ErnUP9ELZxVYru8XABYowrhXYIBriMWdxN7anLyjd8QtREVRztjsAWuzKElsS
kk6b4y5P0OGcc4oHWzz01365JrghPGF-m2-f_wY-ql4-
FIJKKbORnUTCtb5qplaJoPMGRk6dJIEBh4tcSCVn--FCn7WdVtQ-
z51I9myvu3tW9sEy7P4kCfb5wHfb5Djm-5fxTkBls-2_hHravEx5uSzUIorKf9RTlB3hRuYBv3qMaRS-
pZz069XL2BUuDoduR3Zmeh7eKyN_PqH6dQEBZ5YBTqo_65-bsMyqe4ds1Q2qB7SjcvrWVWXDuqss1_-
TM590i_ae_mmjKrJjjhXvZzMowleZemgnJXN8mdjkJfB127bSUiO24a3uf9PAifPnR4pdN1L_6X-
VaSYAGmXOaIE8SXvVpYGYgZXtOAPDVaP15MCxCEcAyDoxTK_vE7jyJwptvb5T4kjpgU8uug5EQQKwiv9mQ6h
RLb8tqdDtyanaTkPDeiupAhVhtO5nwsa62n447BPGDxaKLqwl3lWobR65vqZBYaRu4kQlXKYTtmp4eEZlh
5hlyq8DEiliD9gKOGj-zLL4_GjA0z84IxA_Kvr8q9hquNUVBw7sybzqQ9HjYo0-
MIPkczD6WTy7uaLvaQWXJIhROVu548aNRqnLAN6pBPjnh1snKRI2lTQlUt3EsJMzHtrcM8JqcliO2TR5twy
c0irm5OI9j1E7lAKXbK6dvIwI5kop5QHT3oJfLo2vzvOn84msezc80Iui2vC7AiPjZ1Puh4XrCOSW8huzj_
nMp9eXLUTwbp8SnB2sA4846KrnLUhWsH2e8ERYTYc4LkScKTTa36gj9mN0Q6s0E_KAlqaaAwd-
mNzHeGmN1qFp_oWdcsjgIxelHuxfZ2-kif0nVMhxP_rIGFF28vThZMv-
qOrUZMhxAkqkMYrzab5Sm0wRRI4c-s61yf5Vl0-9QTZ2PUGPV2rx15Cs_RMdG6QlilqILONW639KmmHK_W-
JL9xvK9TDBT0EU4QjLW2RQvekjEvUX2mpqwBBHrNSoIUiSUVkQKJQ5c6JttvnyHvY.nsx2R5KPQ6kvbQBj4
SviVw&response_type=code&client_id=abf79a52-9aed-47c6-be5d-
fb6b96e63a13&redirect_uri=https://api.sandboxaccounts.smartfintech.eu/gateway/core/
rest/api/confirmation&scope=AISP&access_type=offline&transactionId=e10e5683-49e1-
44bf-eb6b-1e3b70243ecd"
}
}
}
}
}

```

2.1 initCosentin SANDBOX – the example below shows how the developer will interact with bank's internet banking application



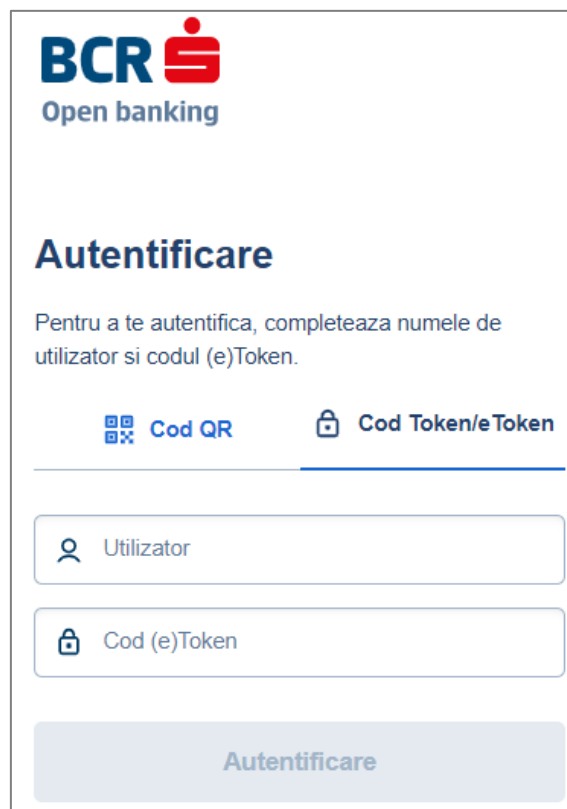
The image shows a login interface for 'SmartAccounts'. It features a blue header with a user icon and the text 'SmartAccounts'. Below the header, there is a white container with three elements: a 'Choose user' dropdown menu, a 'Log in user' button, and a 'Deny user' button. The 'Deny user' button is highlighted with a red border.



The image shows a login interface for 'SmartAccounts'. At the top, there is a blue header with a camera icon and the text 'SmartAccounts'. Below this, the word 'Scopes' is displayed. Under 'Scopes', there is a button labeled 'AISP'. A horizontal line separates this from the text 'Allows 3rd party interactions with the bank client's accounts'. Another horizontal line follows. Below this, there is a 'Log in' button. At the bottom, there is an unchecked checkbox followed by the text 'Log in without scopes'.

After pressing "Log in", thus authorising the consent for all available accounts (see information below regarding BCR concept of consent), developer will be redirected to the established page.

2.2 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application



The image shows a login interface for 'BCR Open banking'. At the top, there is the BCR logo and the text 'Open banking'. Below this, the word 'Autentificare' is displayed in a large, bold font. Under 'Autentificare', there is a paragraph of text: 'Pentru a te autentifica, completeaza numele de utilizator si codul (e)Token.' Below this, there are two tabs: 'Cod QR' and 'Cod Token/eToken'. The 'Cod Token/eToken' tab is selected. Below the tabs, there are two input fields: 'Utilizator' (with a person icon) and 'Cod (e)Token' (with a lock icon). At the bottom, there is a large button labeled 'Autentificare'.

After choosing the way of the authentication and pressing "Autenticare", thus authorising the consent for all available accounts (see information below regarding BCR concept of consent), PSU will be redirected to the established page.

3. GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 5. GetConsent

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/consent/BCR/{{(internalConsentId)}}` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
☒ Content-Type	application/json				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": "allAccounts"
    },
    "consentStatus": "Valid",
    "frequencyPerDay": 4,
    "lastActionDate": "2023-02-07",
    "validUntil": "2023-05-07",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 6. GetConsentStatus

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/consent/BCR/{{(internalConsentId)}}/status` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ Content-Type	application/json				
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "Valid"
  }
}
```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 7. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BCR/{{internalConsentId}}` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "11e07590-27d4-409e-914b-c248fb945b11",
      "iban": "RO77RNCB0002000000010001",
      "currency": "EUR",
      "name": "Peter Pan",
      "product": null,
      "cashAccountType": "CACC",
      "status": "enabled",
      "bic": "RORNCBROB0XXX",
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    },
    {
      "resourceId": "62b91e9a-3074-11e9-b210-d663bd873d93",
      "iban": "RO50RNCB0002000000010002",
      "currency": "EUR",
      "name": "My current account",

```

```

        "product": null,
        "cashAccountType": "CACC",
        "status": "enabled",
        "bic": "RORNCBROB0XXX",
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
}
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 8. GetBalances

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO50RNCB0002000000010002"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 400.0
        },
        "balanceType": "closingBooked",
        "referenceDate": "2017-11-21",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}

```

```

    }
}

```

7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 9. GetTransactions

GET `{{(API_BASE_URI)}/gateway/core/rest/api/accounts/BCR/62b91e9a-3074-11e9-b210-d663bd873d93/{{(internalConsentId)}}/transactions?bookingSta...` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 9. GetTransactions

GET `{{(API_BASE_URI)}/gateway/core/rest/api/accounts/BCR/62b91e9a-3074-11e9-b210-d663bd873d93/{{(internalConsentId)}}/transactions?bookingSta...` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2022-05-05			
☒	dateTo	2022-05-15			
	Key	Value	Description		

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO50RNCB0002000000010002",
      "currency": "EUR"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "trx3",
          "entryReference": null,
          "endToEndId": "End to End identification3",
          "bookingDate": "2018-10-02",
          "valueDate": "2018-10-02",
          "executionDateTime": null,
          "transactionAmount": {
            "currency": "EUR",
            "amount": -1000.5
          },
          "transactionType": null,

```

```

        "exchangeRate": [],
        "creditorName": "The Hulk",
        "creditorAccount": {
            "iban": "AT108809156711523429"
        },
        "debtorName": "Frodo",
        "debtorAccount": {
            "iban": "RO50RNCB0002000000010002"
        },
        "remittanceInformationUnstructured": "Credit Transfer",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    },
    {
        "transactionId": "W100000000000707",
        "entryReference": null,
        "endToEndId": "19RQDEXNN1S1",
        "bookingDate": "2023-01-11",
        "valueDate": "2023-01-11",
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "EUR",
            "amount": -0.01
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": "Rncbro benf",
        "creditorAccount": {
            "iban": "RO23RNCB0002000000010003"
        },
        "debtorName": null,
        "debtorAccount": {
            "iban": "RO50RNCB0002000000010002"
        },
        "remittanceInformationUnstructured": "19RQDEXNM6WY",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    }
],
    "pending": [],
    "links": null
},
    "balances": []
}
}

```

8. GetTransactionsDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 10. GetTransactionDetails

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "transactionId": "trx3",
    "entryReference": null,
    "endToEndId": "End to End identification3",
    "bookingDate": "2018-10-02",
    "valueDate": "2018-10-02",
    "transactionAmount": {
      "currency": "EUR",
      "amount": -1000.5
    },
    "transactionType": null,
    "creditorName": "The Hulk",
    "creditorAccount": {
      "iban": "AT108809156711523429"
    },
    "debtorName": "Frodo",
    "debtorAccount": {
      "iban": "RO50RNCB0002000000010002"
    },
    "remittanceInformationUnstructured": "Credit Transfer",
    "executionDateTime": null
  }
}
```

9. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 11. GetAccountDetails

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "11e07590-27d4-409e-914b-c248fb945b11",
    "iban": "RO77RNCB0002000000010001",
    "currency": "EUR",
    "name": "Peter Pan",
    "product": null,
    "cashAccountType": "CACC",
    "status": "enabled",
    "bic": "RORNCBROB0XXX",
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [],
    "sortCodeAccountNumber": null
  }
}
```

10. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 12 DeleteConsent Save ... Edit Comments

DELETE ▼ {{(API_BASE_URI)}}/gateway/core/rest/api/deleteConsent/BCR/{{(internalConsentId)}} Send ▼

Params Authorization ● Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

11. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 1.1 RefreshToken

Save

POST

{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken

Send

Params

Authorization

Headers (10)

Body

Pre-request Script

Tests

Settings

Cookies

Headers

8 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	{{internalConsentId}}				
☒	access_token	{{access_token}}				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 1.1 RefreshToken

POST

{{MTLS_BASE_URI}}/gateway/authenticate/rest/apl/refreshToken

Send

Params

Authorization

Headers (10)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	refresh_token	{{refresh_token}}			
☒	client_id	{{client_id-partner}}			
	Key	Value	Description		

The screenshot shows the Postman interface with a REST client request. The URL bar at the top displays "SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 3. Intermediary API's BCR / 1.1 RefreshToken". The request method is "POST" and the URL is "{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken". The "Tests" tab is selected, showing a JavaScript script that parses the response body and sets environment variables for "access_token", "refresh_token", and "internalConsentId". The "Send" button is visible on the right.

Response:

```
{
  "status": 200,
  "messageStatus": "SUCCESS",
  "payload": {
    "internalConsentId": 101688,
    "access_token": "eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICI4alhJWS1YbUhFQ0I0NkZBckhZSzU0QndGYXFiMl1NUUF4SEJXYmlxb2ZJIn0.eyJleHAiOiJlNTUyOTk5NjQsImldhdCI6MTY1NTI5OTY2MywianRpIjoiejYjFiMDkwYmEtODNlZi00NDMyLTk5ZWUtODZiNDljNGM1MTEeIiwiaXNzIjoiaHR0cDovL2tleWNSb2FrLWFwcC1zZXJ2aWNlOjgwODAvYXV0aC9yZWZfSbXMc21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzZdWiiOiI2NmE2ZTIyMC10WE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDZMiLCJ0eXAiOiJlJCZWFyZiIiLCJhenAiOiJ0ZXN0Y2xpZW50d2EiLCJzZXNzaW9uX2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4Iiwic21hcnRhY2NvdW50c19jb25zZW50X21kX2NsYWltIjoiaMTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGvjdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYWN5h2ZUyWNjb3VudCIsIm1hbmFnZS1hY2NvdW50LWxpbmtzIiwidmlldyIwcm9maWx1Il19fSwic2NvcGuiOiJzbWFFdGFjY291bnRzX2NvbNlbnRfaWRfY2xhaW06MTAxNjg4IiwiaWY2xpZW50SWQ0IiwiaWY2N0YXR1IjoiaWNTA1MGQ0YmYtMTQ2MS00ZTg4LWFmNTYtNWUzN2VjZTNiNjc4IiwiaWYWNyIjoiaSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNjZXNzIjp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfH
```


2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 4. initConsent

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` Send

Params Authorization Headers (14) Body Pre-request Script Tests Settings Cookies

KEY	VALUE	DESCRIPTION
☒ Content-Type	application/json	
☒ PSU-IP-Address	192.12.123.32	
☐ PSU-ID	13333330	
☐ PSU-ID-Type	PJ	
☒ PSU-ID	31111111	
☒ PSU-ID-Type	PJ	
Key	Value	Description

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 4. initConsent

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` Send

Params Authorization Headers (14) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```

1 {
2   "codeBank": "BRD",
3   "periodOfValid": 90,
4   "psuEmail": "bogdan.gurita@itsmartsystems.eu",
5   "psuIntermediarId": "123",
6   "redirectURL": "https://google.com",
7   "TCaccepted": true
8 }

```

The user needs to have "PSU-ID" and "PSU-ID-Type" checked on headers ("PSU-ID-Type" = "PJ" in this case).

By being decoupled, the user the authentication of the PSU occurs outside of the interaction with the intermediary page (the PSU must log in in the internet banking application to authorise the consent).

The PSU should know which internet banking application should be used to authorise the consent.

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": null
      }
    }
  }
}

```

3. GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 5. GetConsent

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/BRD/{{internalConsentId}}` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	Content-Type	application/json				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO11BRDE111SV1111111111"
        }
      ],
      "balances": [
        {
          "iban": "RO11BRDE111SV1111111111"
        },
        {
          "iban": "RO11BRDE111SV11111112222",
          "currency": "RON"
        },
        {
          "iban": "RO22BRDE222SV2222222222"
        }
      ],
      "transactions": [
        {
          "iban": "RO11BRDE111SV1111111111"
        }
      ],
      "availableAccounts": null
    },
    "consentStatus": "received",
    "frequencyPerDay": 4,
    "lastActionDate": "2019-03-01",
    "validUntil": "2019-05-01",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.... / 4. Intermediary API's B... / 6. GetConsentStat...

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/BRD/{{internalConsentId}}/status` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ Content-Type	application/json				
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "received"
  }
}
```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 7. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/{{internalConsentId}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "46MS",
      "iban": "RO11BRDE111SV1111111111",
      "currency": "EUR",
      "name": null,
      "product": null,
      "cashAccountType": null,
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
    }
  ]
}
```

```

        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    },
    {
        "resourceId": "46NB",
        "iban": "RO22BRDE222SV2222222222",
        "currency": "RON",
        "name": null,
        "product": null,
        "cashAccountType": null,
        "status": null,
        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
]
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 8. GetBalances

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/RO47BRDE410SV047474100/{{internalConsentId}}/balances` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {},
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": -229959.14
        }
      }
    ]
  }
}

```

```

    },
    "balanceType": "",
    "referenceDate": "2013-05-26",
    "creditLimitIncluded": null,
    "creditDebitIndicator": null,
    "lastChangeDateTime": null,
    "lastCommittedTransaction": null,
    "transactionStatus": null
  }
}
]
}
}

```

7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 4. Intermediary API's BR... / 9. GetTransactio...

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/BRD/1010000000195/{{(internalConsentId)}}/transactions?bookingStatus=booked&dateFrom=2023-` Send

Params • Authorization • Headers (8) Body Pre-request Script Tests • Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2023-01-01			
☒	dateTo	2023-02-10			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 4. Intermediary API's BR... / 9. GetTransactio...

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/BRD/1010000000195/{{(internalConsentId)}}/transactions?bookingStatus=booked&dateFrom=2023-` Send

Params • Authorization • Headers (8) Body Pre-request Script Tests • Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	next	<code>{{(next_page)}}</code>				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 4. Intermediary API's BR... / 9. GetTransactio...

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/BRD/1010000000195/{{(internalConsentId)}}/transactions?bookingStatus=booked&dateFrom=2023-` Send

Params • Authorization • Headers (8) Body Pre-request Script Tests • Settings Cookies

```

1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",

```

```

"payload": {
  "account": {
    "iban": "RO12BRDE12SV123455601001",
    "currency": "RON"
  },
  "transactions": {
    "booked": [
      {
        "transactionId": null,
        "entryReference": null,
        "endToEndId": null,
        "bookingDate": "2022-08-01",
        "valueDate": "2022-08-01",
        "executionDateTime": null,
        "transactionAmount": {
          "currency": "RON",
          "amount": -1275.01
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": null,
        "creditorAccount": {
          "iban": "RO76BRDE010SV12345710100"
        },
        "debtorName": null,
        "debtorAccount": {
          "iban": "RO12BRDE12SV123455601001"
        },
        "remittanceInformationUnstructured": "TRFOPH2022081114453,Tr.Credit-Plata,303011008,BENEFICIAR PLATA,CUI/CNP1234567,DETALII-PLATA-DETALII-PLATA,-DETALII",
        "proprietaryBankTransactionCode": "Tr.Credit-Plata",
        "additionalInformation": null,
        "smartRemittance": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
      },
      {
        "transactionId": null,
        "entryReference": null,
        "endToEndId": null,
        "bookingDate": "2022-08-02",
        "valueDate": "2022-08-02",
        "executionDateTime": null,
        "transactionAmount": {
          "currency": "RON",
          "amount": -10000.0
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": null,

```



```

        "creditorAccount": {
            "iban": null
        },
        "debtorName": null,
        "debtorAccount": {
            "iban": "RO12BRDE12SV123455601001"
        },
        "remittanceInformationUnstructured": "TRFOP433695436645465656,U
tiliz POS B pl,MAGAZIN ALBA-
IULIA,Card nr 427398*****6523 (V,BD) (DETINATOR CARD) MAGAZ,IN ALBA-IULIA",
        "proprietaryBankTransactionCode": "Utiliz POS B pl",
        "additionalInformation": null,
        "smartRemittance": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    }
},
    "pending": [],
    "links": null
},
    "balances": []
}
}

```

8. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 4. Intermediary API's B... / 10. GetAccountDeta...

GET `{{(API_BASE_URI)}/gateway/core/rest/api/accounts/BRD/RO47BRDE410SV047474100/{{(internalConsentId)}}/details` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
    "status": 200,
    "messageStatus": "Success",
    "payload": {
        "resourceId": "46MS",
        "iban": "RO11BRDE111SV1111111111",
        "currency": "EUR",
        "name": null,
        "product": null,
        "cashAccountType": null,
        "status": null,
        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
    }
}

```

```

        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
}

```

9. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 11 DeleteConsent

DELETE `{{API_BASE_URI}}/gateway/core/rest/api/deleteConsent/BRD/{{internalConsentId}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}

```

10. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 1.1 RefreshToken

POST `{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	<code>{{internalConsentId}}</code>				
☒	access_token	<code>{{access_token}}</code>				
	Key	Value	Description			

In case the "accessToken" expires, the response will have the following structure:

5. BRD PF (individuals) - Flow

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 1. Authenticate

Save Send

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL

KEY	VALUE	DESCRIPTION		Bulk Edit
☒ client_id	{{client_id-partner}}			
Key	Value	Description		

[illegible]

```

ByZWZlcnJlZlF91c2VybmFtZSI6InNlcnZpY2UtYWNjb3VudC10ZXN0Y2xpZW50djEiLCJjbGllbnRBZGRyZ
XNzIjoimTAuMC4yNDguMzIifQ.BDf-
7K7V_nTlBiilj5pWkcRFwBw69KZZOStlXVUNNjGGmGfGinUUTpfmJMqCbtLaNTURhYzrSYDlkcUJTJ7oKklf
4MQpKR7W3GvEwJnoJ7Pp6fwlRl7TewMQ9QBAGgBlxfk8iAVx0CiRv9TvJ_IvmkgTAI-
XB03tyrFZQn0xbg7kWmVFJx_iG-g5W93qCGETynoVEnMJEEdqsUDXLi6xa3_QATcF8L8FN0v-
NVX9TvYorEC_XJl6LmkItkhiBK_6klvyZSV9R2kjE_nkqSbio9kv31KKG9Wg-
NuK2pwiqE1feQ_VIRpKm_H8eDDCcFlLlFfVviuOdXbZQY59E7g-bBQQ",
    "refresh_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpzZW50L3N1bWVudCI6IjE2MzU5NSwianRpIjoimMmNhMGUyZjUtMzY2My00NDZkLWFlNmEtODlmNjMOMmE2ZDVjIiwiaXNzIjoiaHR0
cDovL2tleWNsb2FrLWFwcClzZXJ2aWNlOjgwODAvYXV0aC9yZWZsbXMvc2lhcjY2NvdW50cyIsImF1ZCI6Imh0dHA6Ly9rZXljbG9hay1hcHAtc2Vydm1jZTo4MDgwL2FlZG9vcmVhbGlzL3NtYXJ0YWNjb3VudHMiLC
JzdWIiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWVmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJPZmZsaW51IiwiaXpwaWoiOiJGVzdGNsaWVudHYxIiwic2Vzc2lvd19zdGF0ZSI6ImM4NjFjYjYwQXlTZW1YTktNGUwZC1hNDBmLWVj
OWM3NjBmMDMxMzIsInNjb3B1Ijoic2lhcjY2NvdW50c19jb25zZW50X2lkX2NsYWltOjEwMTY3MiJ9.xk
NqUCnOezXSlfFzdbmcDN5CT97ubfoXg4fMlwQN0Hk"
  }
}

```

2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 4. Intermediary API's BRD / 4. initConsent

POST {{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}} Send

Params Authorization Headers (14) Body Pre-request Script Tests Settings Cookies

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ Content-Type	application/json				
☒ PSU-IP-Address	192.12.123.32				
☒ PSU-ID	13333330				
☒ PSU-ID-Type	PF				
☐ PSU-ID	31111111				
☐ PSU-ID-Type	PJ				

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / initConsent

POST {{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}} Send

Params Authorization Headers (15) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```

1  {
2    "codeBank": "BRD",
3    "periodOfValid": 90,
4    "psuEmail": "monica.rotaru@itsmartsystems.eu",
5    "psuIntermediarId": "123",
6    "redirectURL": "https://google.com",
7    "TCaccepted": true
8  }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",

```

```

    "payload": {
      "consentStatus": "RECEIVED",
      "consentId": "800000022",
      "_links": {
        "scaOAuth": {
          "href": null
        }
      }
    }
  }
}

```

The user needs to have "PSU-ID" and "PSU-ID-Type" checked on headers ("PSU-ID-Type" = "PF" in this case).

By being decoupled, the user the authentication of the PSU occurs outside of the interaction with the intermediary page (the PSU must log in in the internet banking application to authorise the consent).

The PSU should know which internet banking application should be used to authorise the consent.

3. GET Consent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 4. GetConsent

GET `{{APL_BASE_URI}}/gateway/core/rest/api/consent/BRD/{{internalConsentId}}` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	Content-Type	application/json				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": "allAccounts"
    },
    "consentStatus": "received",
    "frequencyPerDay": 4,
    "lastActionDate": null,
    "validUntil": "2019-09-14",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
  }
}

```

```

        "creationDate": null
    }
}

```

4. GET ConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 5. GetConsentStatus

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/BRD/{{internalConsentId}}/status` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "received"
  }
}

```

5. GET Accounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 6. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/{{internalConsentId}}` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "1010000000195",
      "iban": "RO47BRDE410SV047474100",
      "currency": "RON",
      "name": "Contul meu in RON",
      "product": null,
      "cashAccountType": null,
      "status": "Activ",
    }
  ]
}

```

```

        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    },
    {
        "resourceId": "1010000000285",
        "iban": "RO46BRDE410SV04646464100",
        "currency": "EUR",
        "name": "Contul meu in EUR",
        "product": null,
        "cashAccountType": null,
        "status": "Activ",
        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
]
}

```

6. GET Balances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 7. GetBalances

Save

...

GET

{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/RO47BRDE410SV04747474100/{{internalConsentId}}/balances

Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

Headers

7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
    "status": 200,
    "messageStatus": "Success",
    "payload": {
        "account": {
            "iban": "RO47BRDE410SV04747474100",

```



```

        "currency": "RON"
    },
    "balances": [
        {
            "balanceAmount": {
                "currency": "RON",
                "amount": 2020.55
            },
            "balanceType": "expected",
            "referenceDate": null,
            "creditLimitIncluded": "true",
            "creditDebitIndicator": null,
            "lastChangeDateTime": "2019-01-12 03:32:07",
            "lastCommittedTransaction": null,
            "transactionStatus": null
        }
    ]
}

```

7. GET Transactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 8. GetTransactions

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/1010000000195/{{internalConsentId}}/transactions?bookingStatus=booked&dateFrom=2022-` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒ bookingStatus	booked			
☒ dateFrom	2022-05-20			
☒ dateTo	2022-06-10			
Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 8. GetTransactions

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/1010000000195/{{internalConsentId}}/transactions?bookingStatus=booked&dateFrom=2022-` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
☒ next	{{next_page}}				
Key	Value	Description			

Response:

```

{
    "status": 200,
    "messageStatus": "Success",
    "payload": {

```

```

"account": {
  "iban": "RO47BRDE410SV04747474100",
  "currency": "RON"
},
"transactions": {
  "booked": [
    {
      "transactionId": null,
      "entryReference": null,
      "endToEndId": null,
      "bookingDate": "2019-01-13",
      "valueDate": "2019-01-12",
      "executionDateTime": null,
      "transactionAmount": {
        "currency": "EUR",
        "amount": -5.67
      },
      "transactionType": null,
      "exchangeRate": [
        {
          "currencyFrom": "RON",
          "rateFrom": 4.7234,
          "currencyTo": "EUR",
          "rateDate": "2019-01-13"
        }
      ],
      "creditorName": null,
      "creditorAccount": {
        "iban": "RO46BRDE410SV04646464100"
      },
      "debtorName": null,
      "debtorAccount": {
        "iban": null
      },
      "remittanceInformationUnstructured": "TEST 1",
      "proprietaryBankTransactionCode": "Plata pentru alta sucursala
BRD",
      "additionalInformation": null,
      "transactionStatus": null,
      "creditDebitIndicator": null
    },
    {
      "transactionId": null,
      "entryReference": null,
      "endToEndId": null,
      "bookingDate": "2019-01-12",
      "valueDate": "2019-01-12",
      "executionDateTime": null,
      "transactionAmount": {
        "currency": "RON",
        "amount": 343.01
      }
    }
  ]
}

```

```

    },
    "transactionType": null,
    "exchangeRate": [],
    "creditorName": null,
    "creditorAccount": {
      "iban": null
    },
    "debtorName": "NUME PRENUME TEST",
    "debtorAccount": {
      "iban": "RO48BRDE410SV04848484100"
    },
    "remittanceInformationUnstructured": "TEST 2",
    "proprietaryBankTransactionCode": "Incasare aceeasi sucursala B
RD",

    "additionalInformation": null,
    "transactionStatus": null,
    "creditDebitIndicator": null
  }
],
"pending": [],
"links": {
  "next": {
    "href": "aHR0cHM6Ly9yZ3cuNWRmNC1iZTQ0YTY1ZC5ldS1kZS5hcG1jb25uZW
N0LmFwcGRvbWFPbi5jbG91ZC9zbWZyZGZpbmRlY2gvc2FuZGJveC9wc2QyLWFpc3AvdjEvYWNjb3VudHMvQ
lJELzEwMTAwMDAwMDAwOTUvdHJhbnNhY3Rpb25zP2RhZGVVGcm9tPTIwMjMtMDEtMDEmZGF0ZVRvPTIwMjMt
MDItMDgmcVjb3Jkc1BlclBhZ2U9MjAwJmJvbm9va2VkJndpdGhCYWxhbmNlPXRydWU
="
  }
}
},
"balances": []
}
}

```

8. GET Accounts Details

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 10. GetAccountDetails

Save
...

GET
{{API_BASE_URI}}/gateway/core/rest/api/accounts/BRD/RO47BRDE410SV047474100/{{internalConsentId}}/details
Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

Headers
7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {

```

```

    "resourceId": "1010000000195",
    "iban": "RO75BRDE380SV01999963800",
    "currency": "RON",
    "name": "account alias 2",
    "product": null,
    "cashAccountType": null,
    "status": "enabled",
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [],
    "sortCodeAccountNumber": null
  }
}

```

9. Delete Consent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 11 DeleteConsent

DELETE `{{(API_BASE_URI)}}/gateway/core/rest/api/deleteConsent/BRD/{{(internalConsentId)}}` Send

Params Authorization ● Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}

```

10. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 4. Intermediary API's BRD / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (10) Body ● Pre-request Script Tests ● Settings Cookies

Headers 8 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	internalConsentId	{{(internalConsentId)}}				
☒	access_token	{{(access_token)}}				
	Key	Value	Description			

In case the "accessToken" expires, the response will have the following structure:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "Invalid access token"
  }
}
```

6. Raiffeisen Bank - Flow

1. Authenticate

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 1. Authenticate

POST

{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/token

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	client_id	{{(client_id-partner)}}			
	Key	Value	Description		

Response:

```
{
  "status": 200,
  "messageStatus": "SUCCESS",
  "payload": {
    "internalConsentId": 101674,
    "access_token": "eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICI4alhJWS1YbUhFQ0I0NkZBckhZS2U0QndGYXFiMl1NUUF4SEJXYmlxb2ZJIn0.eyJleHAiOiJ2NTUyOTYzMTU5ImhhdCI6MTY1NTI1NjAxNSwianRpIjoizDBmMGQ4OGQtOGFmZS00MzI5LWl0eGZlY2JlYWEuXjJjZWE0IiwiaXNzIjoiaHR0cDovL2tleWNsb2FrLWFwcClzZXJ2aWNlOjgwODAvYXV0aC9yZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQiLCJzdzWiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZlIiLCJhenAiOiJ0ZXN0Y2xpZW50djEiLCJzZXNzaW9uX3N0YXR1IjoingQwYjZmYjUtMjVjNC0MTlkLTlmodYtYjU4Zjg1NWJjZDdkIiwiaWYyYWNyIjoimSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfYXN0b21hcn
```

}

2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / **initConsent**

POST

{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}

Send

Params

Authorization

Headers (12)

Body

Pre-request Script

Tests

Settings

Cookies

Headers

9 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ Content-Type	application/json				
☒ PSU-IP-Address	192.12.110.32				
☒ PSU-ID	9999999999				
Key	Value	Description			

NOTE: when initiating a consent for corporate account, then send on API's header the attribute "PSU-ID-TYPE" with value "PJ"

The screenshot displays the Swagger UI for the SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 API. The selected endpoint is `5. Intermediary API's RZB / initConsent`. The request method is **POST**, and the URL template is `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}`. The request body is set to **raw** and contains the following JSON:

```
1 {
2   ...."allAccounts": [
3     ....
4     ...."iban": "R031RZBR0000069999999980",
5     ...."currency": "RON"
6     ....
7   ],
8   ...."codeBank": "RZB",
9   ...."periodOfValid": 90,
10  ...."psuEmail": "monica.rotaru@itsmartsystems.eu",
11  ...."psuIntermediaryId": "123",
12  ...."redirectURL": "https://google.com",
13  ...."TCaccepted": true
14 }
```

The user needs to have PSU-ID checked and send an IBAN on the request.

Response:

 $\{$

```

    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://api-auth-test.raiffeisen.ro/psd2-rbro-oauth2-
api/oauth2/authorize?state=ZXlKbGJtTWlPaUpCTVRJNFEwSkRMVWhUTWpVMklpd2l2V3huSWpvaVpH
bHlJaXdpWTNSNUlqb2lTbGRVSW4wLi5CcWlqYVdRbDdVQVh0TENwdWU0ZGZnLmRINzRuZ2ZmZlhfYVFlbU1
QS1ZOTUh4Z0UyWnJUWDFCNXZCUFZJQ0J6N1ZfMkNXeTJRNjZjQzVqc1JVMEluWWVFcGRDbE5zTGdpdUp1WX
EweG9oY0xOMzh1TTdyQ1BDaFpUVDJPSkZfQjBndVdZQklsNjZnRVJFbVUxbGhCWGh4M2hDUTVHTVdubV9hM
3Q4Z19mbVUweldLZV9mOFNpZmx1N0JwZVlzdEFsZlk4V0hDMXA5NUpkNG1pdTkycTFWQ19EYWtZRVczbkxT
YnV2SE1ZOVBMDFvNUJtWnU5ZDBOMk1SaGVBMk1SaGVBMk1SaGVBMk1SaGVBMk1SaGVBMk1SaGVBMk1SaGVBMk1
5dVlWSTZuWmZpWDRmbDM5MnlxXzlwEtmWE8tSlhLYURBTjFTd0Z4VU9laXc1SFQyS3IxMG50MEJkMXV6ZF
dZOHzoQ2RBd3E2cWVhcWJpZGpPVkxHcW93Q19JUVVOTUF2cHVJTHQ1VFE2cTZiS3pYdFFIRVVMc1JyellXQ
WxrTj16NkJsRHQ0cWdSZXRoaS16TGZjcWNzSUR5TmtkanVQM3ZkTlQ1SV91QV9WMURmbGZOeEtLSDlBej13
M1hmTEhFcDJycjJuN2owOFZ2OFhGOGQ1bGMxMDdYXXJMSVnJRvVHdlhYYzNYVmZKM0M1Z19oWVFlUUp1b0V
VQVZQWU5DM3dDcTRZTE5xUVVtNnRfd3d6REDNaUtZY2d2RXA2MUFXZdVNrVmJxQlFIQm5iYzQ5Q2ItMGhfc1
VODGlxYkdid0N2OU1hU2Q2tSFZTaGd5UnowWjJMT1ZCSTlPYUlqaGNsZVBXY0c4VE5tZTdHWThrU2ZVSnnQb
jU4cVUtTURIUFYyWF10WfdBNkVra2tnVzJpeDh3REpfcjU2RWkxOFewYS12eE0wcFl4Z1JfWHV4WF1BTlky
emd5M0NkbVfsc3ZxWGJaNwt3bnhsUUtGV1dtSU9Lcjl0Z2djcZNMdjJfNGdoZGVITTVsbmlzYV9ueHVJR1d
UQ1Z6c0hWR2Y2eUptZEhZem1ITnRlR0R2dEpUdXmZTzdIWUE1ZkN0WFdiWwozci16WFJfenBsSlJKT01pd1
ZwUVBTmttZY0hhSUtpeVZKcjJwdmNM3ZRTVBEZ0FYRGtaakVXew5SanpDbG55aUpjN0tSQ1VYS19YM1lTX
1RkMW54ekFsYzFneFNCbTkzUGw3d19mTi1ldHNhMktmUkQtV2RSX25VRmF5M2d4ckdrUEFZcE5EU3ZWVlNE
bnlKSUNnQnFFUTJ6OVVCLVZHcnAyWnVlSUVTYzB0OEVMbldNT0s0N1RQVUZFU0x5dUtGQUUpvQnk2N1N6TGV
2Slld1M3hqYTR5c1RVODRGTKJOY1o3WFNwLXhWQnZGX0NaakhQSmJqbDlCRFVYX1FvOfO2U3pEZEtJZDJFZ2
FPTm13OXNqbQ3ZVAtVXMyVmpVvKxIOWhVdUZM229oU0ZOWXdpb01MRW1jQWNINUDXTVd4SmpXdy5NZ3VhR
VJJY0NNdE1TM2I2b3N4Y2RR&response_type=code&client_id=8b6b8486-e468-4637-bb50-
b27181d387e4&redirect_uri=https://api.sandboxaccounts.smartfintech.eu/gateway/core/
rest/api/confirmation&scope=AISP&consentId=80374e68-ac03-47b5-bae8-1117b56fc0c9"
      }
    }
  }
}

```

2.1 initCosentin SANDBOX – the example below shows how the developer will interact with bank's internet banking application



Raiffeisen
BANK

Raiffeisen Online (XS2A via TPP)

User authentication for consent towards TPP App

PSU ID

9999999998

Log in

Disclaimer: For the real flow, in this step, bank will perform the SCA for the client based on RTS



Raiffeisen Online (XS2A via TPP)

Consent Details

TPP Application Name:	SmartAccounts DEV
Access:	Accounts (list of accounts): • RO03RZBR0000069999999999 Balances (list of accounts with balances): • RO03RZBR0000069999999999 Transactions (list of accounts with transaction history): • RO03RZBR0000069999999999
Recurring/One-time consent:	Recurring
Valid until:	2023-05-08T23:59:00Z
Frequency per day:	4

Approve

After pressing "Approve", thus authorising the consent for all available accounts, developer will be redirected to the established page.

2.2 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application



Banking așa cum trebuie

Te rugăm sa te autentifici

RO EN

Cod utilizator

C

Cod de autentificare

Autentificare

After completing fields "Cod utilizator" and "Cod de autentificare" and pressing "Autentificare", thus authorising the consent for all available accounts, PSU will be redirected to the established page.

3. GET Consent

KEY	VALUE	DESCRIPTION
☒ PSU-IP-Address	192.12.123.32	
Key	Value	Description

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO03RZBR0000069999999999",
          "currency": "RON"
        }
      ],
      "balances": [
        {
          "iban": "RO03RZBR0000069999999999",
          "currency": "RON"
        }
      ],
      "transactions": [
        {
          "iban": "RO03RZBR0000069999999999",
          "currency": "RON"
        }
      ],
      "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": 4,
    "lastActionDate": "2023-02-08",
    "validUntil": "2023-05-08",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

4. GET Consent Status

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 5. GetConsentStatus

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/RZB/{{internalConsentId}}/status` Send

Params Authorization ● Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "valid"
  }
}
```

5. GET Accounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 6. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/RZB/{{internalConsentId}}` Send

Params Authorization ● Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "add9bbec99be99999eb9999999d99999",
      "iban": "RO03RZBR0000069999999999",
      "currency": "RON",
      "name": "My current account",
      "product": "Current Account",
      "cashAccountType": "CACC",
      "status": "enabled",
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
    }
  ]
}
```

```

        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [
            {
                "balanceAmount": {
                    "currency": "RON",
                    "amount": 15000.36
                },
                "balanceType": "expected",
                "referenceDate": "2018-04-02",
                "creditLimitIncluded": null,
                "creditDebitIndicator": null
            }
        ],
        "sortCodeAccountNumber": null
    }
]
}

```

6. GET Balances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 7. GetBalances

Save

...

GET

{{API_BASE_URI}}/gateway/core/rest/api/accounts/RZB/9999f999a999999d9999da99e999d999/{{internalConsentId}}/balances

Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO03RZBR0000069999999999",
      "bban": "9999999999",
      "currency": "RON"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 15000.36
        },
        "balanceType": "expected",
        "referenceDate": "2018-04-02",
        "creditLimitIncluded": null,

```

```

        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
    }
}
]
}
}
}

```

7. GET Transactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 5. Intermediary API's R... / 9. GetTransactio...

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒ bookingStatus	booked			
☒ dateFrom	2022-11-10			
☒ dateTo	2023-02-08			
Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 8. GetTransactions

GET Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
☒ next	{{(next_page)}}				
Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {},
    "transactions": {
      "booked": [
        {
          "transactionId": "NotProvided",
          "entryReference": null,
          "endToEndId": "",
          "bookingDate": "2023-02-01",
          "valueDate": null,
          "executionDateTime": null,
          "transactionAmount": {

```

```

        "currency": "RON",
        "amount": 120.34
    },
    "transactionType": null,
    "exchangeRate": [],
    "creditorName": null,
    "creditorAccount": {
        "iban": null
    },
    "debtorName": "Test Transaction",
    "debtorAccount": {
        "iban": " RO46RZBR0000069899999985"
    },
    "remittanceInformationUnstructured": "CLARITY",
    "proprietaryBankTransactionCode": null,
    "additionalInformation": null,
    "transactionStatus": null,
    "creditDebitIndicator": null
},
{
    "transactionId": "NotProvided",
    "entryReference": null,
    "endToEndId": "",
    "bookingDate": "2023-01-05",
    "valueDate": null,
    "executionDateTime": null,
    "transactionAmount": {
        "currency": "RON",
        "amount": -10001.0
    },
    "transactionType": null,
    "exchangeRate": [],
    "creditorName": null,
    "creditorAccount": {
        "iban": null
    },
    "debtorName": null,
    "debtorAccount": {
        "iban": null
    },
    "remittanceInformationUnstructured": "r002",
    "proprietaryBankTransactionCode": null,
    "additionalInformation": null,
    "transactionStatus": null,
    "creditDebitIndicator": null
}
],
"pending": [],
"links": null
},
"balances": []

```

```
}
}
```

8. GET Accounts Details

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 10. GetAccountDetails

Save

...

GET

{{API_BASE_URI}}/gateway/core/rest/api/accounts/RZB/9999f999a999999d9999da99e999d999/({internalConsentId})/details

Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

Headers

7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "add9bbec99be99999eb9999999d99999",
    "iban": "RO03RZBR0000069999999999",
    "currency": "RON",
    "name": "My current account",
    "product": "Current Account",
    "cashAccountType": "CACC",
    "status": "enabled",
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 15000.36
        },
        "balanceType": "expected",
        "referenceDate": "2018-04-02",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
      }
    ],
    "sortCodeAccountNumber": null
  }
}
```

9. Delete Consent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 11 DeleteConsent

DELETE `{{(API_BASE_URI)}}/gateway/core/rest/api/deleteConsent/RZB/{{(internalConsentId)}}` Send

Params Authorization **Headers (8)** Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

10. Refresh Token

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization **Headers (10)** Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	internalConsentId	<code>{{(internalConsentId)}}</code>				
☒	access_token	<code>{{(access_token)}}</code>				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 5. Intermediary API's RZB / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (10) **Body** Pre-request Script Tests Settings Cookies

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	refresh_token	<code>{{(refresh_token)}}</code>			
☒	client_id	<code>{{(client_id-partner)}}</code>			
	Key	Value	Description		

Response:

```
{
  "status": 200,
  "messageStatus": "SUCCESS",
  "payload": {

```


7. CEC Bank - Flow

1. Authenticate

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 1. Authenticate

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/token` Send

Params Authorization Headers (8) **Body** Pre-request Script Tests Settings

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL

KEY	VALUE	DESCRIPTION
☒ client_id	<code>{{(client_id-partner)}}</code>	
Key	Value	Description

Response:

[illegible]

2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / **initConsent**

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` **Send**

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies

Headers 9 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.110.32				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / **initConsent**

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` **Send**

Params Authorization Headers (11) **Body** Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```
1 {
2   "codeBank": "CEC",
3   "periodOfValid": 90,
4   "psuEmail": "monica.rotaru@itsmartsystems.eu",
5   "psuIntermediarId": "123",
6   "redirectURL": "https://google.com",
7   "TCAccepted": true
8 }
```

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://api-test.cec.ro/cec/tpp/oauthcec/oauth2/authorize?state=ZXlKbGJtTWlPaUpCTVRJNFewSkRMVWh
UTWpVMklpd2l2V3huSWpvaVpHbHlJaXdPWTNSU1qb2lTbGRVSW4wLi5aaVdtWHQ3bmg2Q2J4OTNrd3AxSD
JRLjJDT0Q1VDVqd0ZX1pJNEpIbUx5MUZLRlNycjViTWdTawZSRWpWRVRhRGtmOU1lNWxaay1uUnk4RWRid
ldoS0RYV2FwcWlLQzVfNTJrZTI0YWVodFdzZWJHwmlJOUNLVUhnRHppeUpBTWMwMkk1WTJ2VU9GaX1ja0lE
VlpTb2ExTVUzWW15M3F4MV15eDVoZ2RwZHFtTUcxZW9iYyJiWndpYzYwMjBNODhLSjNDb0t3cWdGVVd6cTh
FbWhIdDhIRWx5ZE92dUE5ZnpXOF15eTV6OFN4eTh3ejlEWepDdnVYTHE2eDFOaTlCakJWd2E3ZFZ0UzZzVU
lNX2pQS0FhSWdvd0dKY2Jac091Szlure9nOTdPRjRocDFVcnpGWVFTeHphRzNLQ1ZjUnJ0UFhmczNjcjdYV
VZpUk4ydnpybUkwZkR5M3lCcFAyVzJXm1RncVEwb0I4bDdjdlY4dHBobFlLVmJsYzdlLTNytcXl6cHZNcXlO
U2ROYS13YWVmdWRRaTz0T01TZ0FRVzJmMF9GQ1drV0lUVWk0dndoeTlsMnRqcDl0MV9GUewwY2xqUmIxc0I
yUnJ60TR0LUg4ckNRMkF5TDQ5bTRfV1c5dVFnZ0pWMW9jZ2lqbC1KTUU5TUhlQWlzbHVTZG5UTHVkcHZTQ0
1tWnlmSlDEX2Z2R051STdBQWtHVXZrN1VBYjdxYkcwdjJWWjh2RHNodDJaalU5VWR3R0ZYTk1QQ0Jmb1NHc
kRFTGYyWUtmOW5QVFJleFZHNjBLamE2RUJlRFhndG1LUEZZZNVg4cUtpVDNHQWhjRjBOdndkaVR1aG5xdEVE
M1k4dnJ4YVYVfqcUJkMW9EQTVzUfNVMG10Y1V0RTNLUkJEVm1SaWdRMmNCTzJ6YklHaFZlWTkxVtBtOFNkr3Z
0dExraEJGQXB1cVdNVUh5SjRjDElTT1AyenNSZFh4N3h1MHFpRTJkekI3WWJlTDFrOGhCNEZ2bnhmeU5lSE
NzUVJsOVExTFJlVz1qbX1BaGRPMFVyU1VOR2dyRk51c1E2UHFoUjlSU01DREptOTRTNG1rNGlubTQ2b2JKR
```

```

VFCMV9Gdn1UXzBuMmxpekFLdjB6NU5peEQtb0hDS1JEVnBaaVNINTFQaWxXXzAxYnJWLvhTT2V2bzVLtk1S
Q09jcmNNX3I5aEtXQWdjV05wem5zQ2FORm9PdUliX3UtYzIzRkRBNTI3REhPblM0a1N5ZlBjam9nSudCcW4
zQWREUEFsWEtsQ0hNcndHQylsVnQzQTlRbmRUSlhZTHBlSm1SbUFiVFg5bEE2Yk4yTDFuNnE1ZE44VV8wdW
dnSjBOVEFvV0MtZEYwcEZIOW0ySnhWRHdfWGtfekpGb292aTRaQ1FuLVZKRxp1VnVJZGpuMkNybjBSQVhoS
ERtQ1l3TzhXSmZFdk1GVjdJNnFCU1F5SzzHZE1aR2VNUddMRl9wUVJXcHc4ajB1QXBGaXdFaXVmN0tESzE1
dlgwY2FSWEdekSW56Y212cXVsb2swVEZScF82WFJHY1ZTdmFfYXZPQ1NBc2k0R3hvQVhVQXdXOEVIY1FDZnh
BUkhpVy0zSkloRGpXc0kuNHJxc1VqVGJrTGJrTjBMSkZVSXZ6dw&response_type=code&client_id=55
01752f-a17a-45b1-8fe4-
c241bae0f73f&redirect_uri=https://api.sandboxaccounts.smartfintech.eu/gateway/core/
rest/api/confirmation&scope=AIS:dcafe57e-eca7-11ec-8283-
0a0800270000&code_challenge=7LOaXFoz3012CEnUkWeKNCvMRBwslk5YK6nMg2Fbts&code_challe
nge_method=S256"
    }
  }
}

```



CEC Bank

CEC Bank - Authorization Platform

User CECOnline
testceapi

Cod acces
.....

Log in

Introduceti Numele dvs de utilizator din aplicatia CECOnline si Codul de acces generat de dispozitivul de autentificare.

Solicitare acord accesare conturi

Bine ati venit, **testcecap**

Aplicatia **SmartAccounts TEST** SOLICITA permisiunea de a accesa conturile dvs. deschise la CEC Bank cu scopul :

AIS Vizualizare date conturi

☒ Selecteaza / Deselecteaza tot

Conturi

- ☒ RO42CECEQW9898bON9993644
- ☒ RO49CECER79292bON8883343
- ☒ RO12CECER792R8Ueb8883338
- ☒ RO03CECER792R7SXV6635199
- ☒ RO46CECEQW93R8Ueb9357561

Balante

- ☒ RO42CECEQW9898bON9993644
- ☒ RO49CECER79292bON8883343
- ☒ RO12CECER792R8Ueb8883338
- ☒ RO03CECER792R7SXV6635199
- ☒ RO46CECEQW93R8Ueb9357561

Tranzactii

- ☒ RO42CECEQW9898bON9993644
- ☒ RO49CECER79292bON8883343
- ☒ RO12CECER792R8Ueb8883338
- ☒ RO03CECER792R7SXV6635199
- ☒ RO46CECEQW93R8Ueb9357561

Actionati [Permit Acces!] daca sunteti de acord sau [Nu sunt de acord!] daca nu sunteti de acord.

Apasand Permit Acces! veti fi redirectat la adresa
<https://api.sandboxaccounts.smartfintech.eu/gateway/core/rest/api/confirmation>.

Nu sunt de acord!

Permit Acces!

After selecting at least one account and type of consent, and pressing "Permit access!", thus authorising the consent based on granularity (which account, balances and transactions), PSU or developer will be redirected to the established page.

3. GET Consent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 4. GetConsent

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": null,
    "lastActionDate": "2023-02-08",
    "validUntil": "2023-05-09",
    "recurringIndicator": false,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

4. GET Consent Status

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 5. GetConsentStatus

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "valid"
  }
}
```

```
}
}
```

5. GET Accounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 6. GetAccounts

Save
...

GET
{{API_BASE_URI}}/gateway/core/rest/api/accounts/CEC/{{internalConsentId}}
Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

Headers
7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "207940324",
      "iban": "RO26CECER999T4ecT8982492",
      "currency": "USD",
      "name": "410.21147840.207940324.USD",
      "product": "Cont curent - pers. fizice REZIDENTE si NEREZIDENTE - USD",
      "cashAccountType": "CurrentAccount",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [
        {
          "balanceAmount": {
            "currency": "USD",
            "amount": 0.0
          },
          "balanceType": "closingBooked",
          "referenceDate": null,
          "creditLimitIncluded": null,
          "creditDebitIndicator": null
        }
      ],
      "sortCodeAccountNumber": null
    }
  ],
}
```

```

    "resourceId": "25511978",
    "iban": "RO42CECEQW9898bON9993644",
    "currency": "RON",
    "name": "421642",
    "product": "Cont curent - persoane fizice - LEI",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": -32289.31
        },
        "balanceType": "closingBooked",
        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
      }
    ],
    "sortCodeAccountNumber": null
  },
  {
    "resourceId": "207940308",
    "iban": "RO83CECER999b2XeV8982495",
    "currency": "HUF",
    "name": "410.21147840.207940308.HUF",
    "product": "Cont curent - pers. fizice REZIDENTE si NEREZIDENTE - HUF",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "HUF",
          "amount": 0.0
        },

```



```

        "balanceType": "closingBooked",
        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
    }
],
"sortCodeAccountNumber": null
},
{
    "resourceId": "100249515",
    "iban": "RO49CECER79292bON8883343",
    "currency": "RON",
    "name": "411.469952.2227767.RON",
    "product": "Cont curent - persoane fizice - LEI",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
        {
            "balanceAmount": {
                "currency": "RON",
                "amount": 0.0
            },
            "balanceType": "closingBooked",
            "referenceDate": null,
            "creditLimitIncluded": null,
            "creditDebitIndicator": null
        }
    ],
    "sortCodeAccountNumber": null
},
{
    "resourceId": "100249740",
    "iban": "RO12CECER792R8Ueb8883338",
    "currency": "EUR",
    "name": "411.469952.2227772.EUR",
    "product": "Cont curent - pers. fizice REZIDENTE si NEREZIDENTE - EURO"
,
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,

```

```

"customerType": null,
"accountUsage": null,
"workingBalance": null,
"onlineActualBalance": null,
"balances": [
  {
    "balanceAmount": {
      "currency": "EUR",
      "amount": -41.15
    },
    "balanceType": "closingBooked",
    "referenceDate": null,
    "creditLimitIncluded": null,
    "creditDebitIndicator": null
  }
],
"sortCodeAccountNumber": null
},
{
  "resourceId": "201415500",
  "iban": "RO03CECER792R7SXV6635199",
  "currency": "CHF",
  "name": "421.469952.4475900.CHF",
  "product": "Cont curent - pers. fizice REZIDENTE si NEREZIDENTE - CHF",
  "cashAccountType": "CurrentAccount",
  "status": null,
  "bic": null,
  "accountOfficerDescription": null,
  "openingDate": null,
  "customerSector": null,
  "customerType": null,
  "accountUsage": null,
  "workingBalance": null,
  "onlineActualBalance": null,
  "balances": [
    {
      "balanceAmount": {
        "currency": "CHF",
        "amount": 0.0
      },
      "balanceType": "closingBooked",
      "referenceDate": null,
      "creditLimitIncluded": null,
      "creditDebitIndicator": null
    }
  ],
  "sortCodeAccountNumber": null
},
{
  "resourceId": "33909743",
  "iban": "RO46CECEQW93R8Ueb9357561",

```

```

    "currency": "EUR",
    "name": "031.88924.753549.EUR",
    "product": "Cont curent - pers. fizice REZIDENTE si NEREZIDENTE - EURO"
  },
  {
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "EUR",
          "amount": 0.0
        },
        "balanceType": "closingBooked",
        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
      }
    ],
    "sortCodeAccountNumber": null
  },
  {
    "resourceId": "207940306",
    "iban": "RO33CECER999R9WRP8982497",
    "currency": "GBP",
    "name": "410.21147840.207940306.GBP",
    "product": "Cont curent - pers. fizice REZIDENTE si NEREZIDENTE - GBP",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "GBP",
          "amount": 0.0
        },
        "balanceType": "closingBooked",

```

```

        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
    },
    ],
    "sortCodeAccountNumber": null
},
{
    "resourceId": "2641063123453605",
    "iban": "RO87CECES999164899997299",
    "currency": "RON",
    "name": "4243XXXXXXXXX1287",
    "product": "VISA Debit - Staff",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
        {
            "balanceAmount": {
                "currency": "RON",
                "amount": 1242.01
            },
            "balanceType": "closingBooked",
            "referenceDate": null,
            "creditLimitIncluded": null,
            "creditDebitIndicator": null
        }
    ],
    "sortCodeAccountNumber": null
}
]
}

```

6. GET Balances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 7. GetBalances

Save

...

GET

{{API_BASE_URI}}/gateway/core/rest/api/accounts/CEC/25511978/{{internalConsentId}}/balances

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

Query Params

KEY	VALUE	DESCRIPTION	...	Bulk Edit
Key	Value	Description		

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO42CECEQW9898bON9993644",
      "currency": "RON"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": -32289.31
        },
        "balanceType": "closingBooked",
        "referenceDate": "2023-02-08",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}
```

7. GET Transactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 8. GetTransactions

GET Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2022-04-10			
☒	dateTo	2022-05-12			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 8. GetTransactions

GET Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

Headers 9 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO42CECEQW9898bON9993644"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "1250649778",
          "entryReference": null,
          "endToEndId": null,
          "bookingDate": "2023-02-07",
          "valueDate": "2023-02-07",
          "executionDateTime": null,
          "transactionAmount": {
            "currency": "RON",
            "amount": 39.35
          },
          "transactionType": null,
          "exchangeRate": [],
          "creditorName": null,
          "creditorAccount": {
            "iban": null
          },
          "debtorName": null,
          "debtorAccount": {
            "iban": null
          },
          "remittanceInformationUnstructured": "Tupunuru vyrqmnt - qsopu
ryru solt turytor",
          "proprietaryBankTransactionCode": null,
          "additionalInformation": null,
          "transactionStatus": null,
          "creditDebitIndicator": null
        },
        {
          "transactionId": "896970683",
          "entryReference": null,
          "endToEndId": null,
          "bookingDate": null,
          "valueDate": "2022-09-27",
          "executionDateTime": null,
          "transactionAmount": {
            "currency": "RON",
            "amount": 130.5
          },
          "transactionType": null,
          "exchangeRate": [],

```

```

        "creditorName": null,
        "creditorAccount": {
            "iban": null
        },
        "debtorName": "",
        "debtorAccount": {
            "iban": ""
        },
        "remittanceInformationUnstructured": "teste dbron",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    },
    ],
    "pending": [],
    "links": null
},
"balances": []
}
}

```

8. GET Transaction Details

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 9. GetTransactionDetails

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/CEC/25511978/{{internalConsentId}}/transactions/1227476280/details` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "transactionId": "1227476280",
    "entryReference": null,
    "endToEndId": null,
    "bookingDate": "2022-03-10",
    "valueDate": "2022-03-10",
    "transactionAmount": {
      "currency": "RON",
      "amount": -18.55
    },
    "transactionType": null,
    "creditorName": null,
    "creditorAccount": {

```

```

        "iban": null
    },
    "debtorName": null,
    "debtorAccount": {
        "iban": null
    },
    "remittanceInformationUnstructured": "Sqpytqlyzqru torqntq-
Qsxytqru torqntq nutq lq ssqtuntq tyn sont surunt puntru sontrqstul nr 894414336",
    "executionDateTime": null
}
}

```

9. GET Accounts Details

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 10. GetAccountDetails

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/CEC/25511978/{{internalConsentId}}/details` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "25511978",
    "iban": "RO42CECEQW9898bON9993644",
    "currency": "RON",
    "name": "421642",
    "product": "Cont curent - persoane fizice - LEI",
    "cashAccountType": "CurrentAccount",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": -32289.31
        },
        "balanceType": "closingBooked",

```



```

        "referenceDate": "2023-02-08",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
    },
    "sortCodeAccountNumber": null
}

```

10. Refresh Token

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 1.1 RefreshToken

POST

{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken

Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings

Headers 8 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	internalConsentId	{{(internalConsentId)}}				
☒	access_token	{{(access_token)}}				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC.v0.3 / 6. Intermediary API's CEC / 1.1 RefreshToken

Save

POST{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken

Send

ParamsAuthorizationHeaders (10)BodyPre-request ScriptTestsSettingsCookies

☐ none☒ form-data☐ x-www-form-urlencoded☐ raw☐ binary☐ GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	refresh_token	{{(refresh_token)}}			
☒	client_id	{{(client_id-partner)}}			
	Key	Value	Description		

Response:

```
{
  "status": 200,
  "messageStatus": "SUCCESS",
  "payload": {
    "internalConsentId": 101676,
    "access_token": "eyJhbGciOiJSUzI1NiIsInR5cCIgOiAiSldUIiwia2lkIiA6ICI4alhJWS1YbUhFQ0I0NkZBckhZS0QndGYXFiMl1NUUF4SEJXYmlxb2ZJIn0.eyJleHAiOiE2NTUyOTcyNjIsImhhdCI6MTY1NTI5Njk2MiwiianRpIjoIn2NlNDE0OGUtNW13Ni00N2M4LWFlYWtNDNlMmZnNWNlY2VjIiwiaXNzIjoiaHR0cDovL2tleWNsb2FrLWFWcC1zZXJ2aWNlOjgwODAvYXV0aC9yZWZfbXMvc21hcnRhY2NvdW50cyIsImF1ZCI6ImFjY291bnQlLCJzdWIiOiI2NmE2ZTIyMC1lOWE0LTQ2M2ItYWFmZi1mOTc4MTU2NDc3ZDMiLCJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1IjoiYjM1YjUxYmMtN2RhOS00MzExLWExZDAtN2EwODI0NDAwM2JiIiwiaWYWNyIjoImSIsImFsbG93ZWQtb3JpZ2lucyI6WyIvKiJdLCJyZWZfbV9hY2Nlc3MiOmsicm9sZXMiOlsib2ZmbGluZV9hY2Nlc3MiLCJlbWFFfYXV0aG9yaXphdGlvbiJdfSwicmVzb3VyY2VfYWNzIjZp7InRlc3RjbGlbnR2MSI6eyJyb2xlcYI6WyJlbWFFfHJvdGJvdGlvbiJdfSwiYWNjb3VudCI6eyJyb2xlcYI6WyJtYW5hZ2UyYWNjb3VudCI6Im1hbmFnZS1hY2NvdW50LWxpbmZtZTJ0eXAiOiJCZWZyZXIiLCJhenAiOiJ0ZXN0Y2xpZW50dGEiLCJzZXNzaW9uX3N0YXR1
```

In case the "accessToken" expires, the response will have the following structure:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "Invalid access token"
  }
}
```

1. Authenticate

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 1. Authenticate

Save
...

POST
{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token
Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings
Cookies

none
form-data
x-www-form-urlencoded
raw
binary
GraphQL

KEY	VALUE	DESCRIPTION	Bulk Edit
☒ client_id	{{client_id-partner}}		
Key	Value	Description	

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 4. InitConsent

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.110.32				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 4. InitConsent

POST `{{(API_BASE_URI)}}/gateway/core/rest/api/initConsent/{{(internalConsentId)}}` Send

Params Authorization Headers (10) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```

1  {
2    "codeBank": "FB",
3    "periodOfValid": 90,
4    "psuEmail": "aaa.aaaa@mail.com",
5    "psuIntermediarId": "123",
6    "redirectURL": "https://google.com",
7    "TCaccepted": true
8  }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://dev.firstbank.ro/openbanking/services/startAuthorize?state=eyJlbmMiOiJBMTI4Q0JDLUhTMjU2IiwiaWxnbGJpbGlzaSI6IjY3R5IjoisldUIn0..MitgkVop-kLwbY8pw9gQRA.fOvZg0ka5h-a5bTFQOS3o8r3AAFBaaEu4TmwVQlPPP628_SST09FBzSi3DpATTsQxivZixRdxBPln0fPsQ06rxylKPTbwXZqsLTYXkCyX61Ei8fl2GNs3m37r_IgnaWerZ_8cBRTBdbSqlrA0Ts4WNhdC2ExQnQoR8iixfxUtfAjKFS5Pcil7dALV3UtFviuPvZAP2NZTs-AHaD58qiOCiILjP6OUlB8u_2yTvz5D_sJFDVfVujRdDqUa6KK13j_vutPwYinAq4HOV-RwqiDBOunWxm-ZHGzP5GcaWiSJVWIV6k3Q32UP_xTGid8G63RaFnGJvkkBk7DHTkwbSvBtQoWJLQapwKK4Z-kEbHuAlNLJbWvdizOuqCumev10GhVGEiG8nPxQZx6K6npqKPiU0gLPZa1PSuKgPff4FauPqjreLkOBsAW-AzbWGNQUnlXF8m4vPhs8-dqe40j20kV7QNx29c7nS-zPAHnhYbheOe-NBDBNnmnUIyrcPvyONXUurMFVYd1RoZ3W--Tbwf3dIcQcp_43Fd3KEaCmuW_03louTKF5UV8ysEpoCL9Uf94slkNN13_OEbaRBfDfO35T3_8t3eK81Ff-f4oKCAItFb1_v8OP4KYDIE_-i4K8H2VSVpLs_oPIokdkW9lxGoo_m5bAvY94rhz7MN384heXdVXIUto8VO6-vrzRpuK6sZyGikS-hOpk4Dcl5FC642HbG4mVORx7I9v0XdAB0hHaoJYlDjdYgcWF116bywPrBT6tc4y9eNDEpgN-7ONo05IMK5S4xyhtox9fEA2x432CS9WrjLojWvxm2ZhS9Eg1JZXnl8PG7Cw2kZDmdbSI-exY2uqkOHTUk9ZDHLRhgIEz1oJXXuOXpMLZ3tdZwAk_V-flZMLioww-EGXp2Pbyh3dxRKU9UL-GSxlEysCp8T3o0qsorXvD9px4GR4UXmUaavqMy0hEbOweXG-A3YWqmZ00wAhAtWmD-

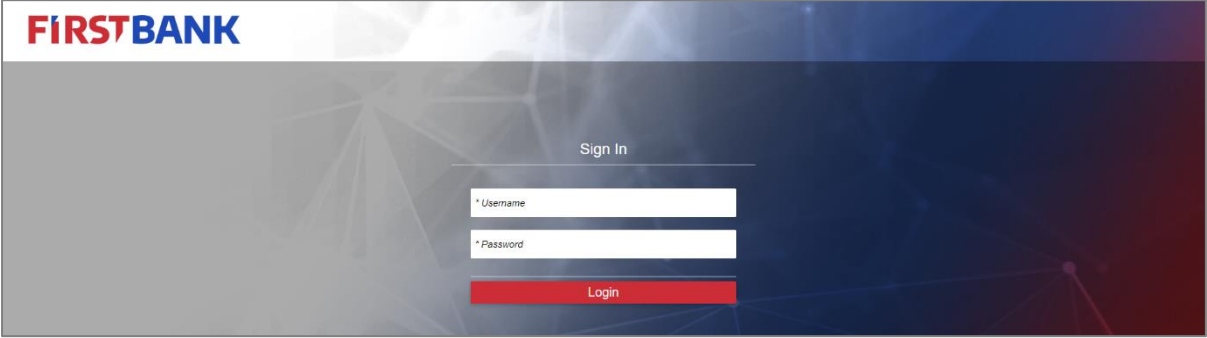
```

```

rXxL0Z6aVzHzOuY2yteg6Cjf2cLV6oZnY2gSrTzkzTVKD1v7TmDgWkzwxjgRk24yuqqPwNHJESnHdqL2HBE
7xb-
HfiPAbAgT.rXDPDwzja4AU5LaCcs_Stg&response_type=code&client_id=toMRlUX5q2anHb2PYevLI
CNB7xxmUFjv&scope=transactions_balances_accounts&consent_id=0e7a00c4-cdd3-4bc9-
af13-5abbd1104e42"
    }
  }
}

```

2.1 initCosentin SANDBOX – the example below shows how the developer will interact with bank's internet banking application



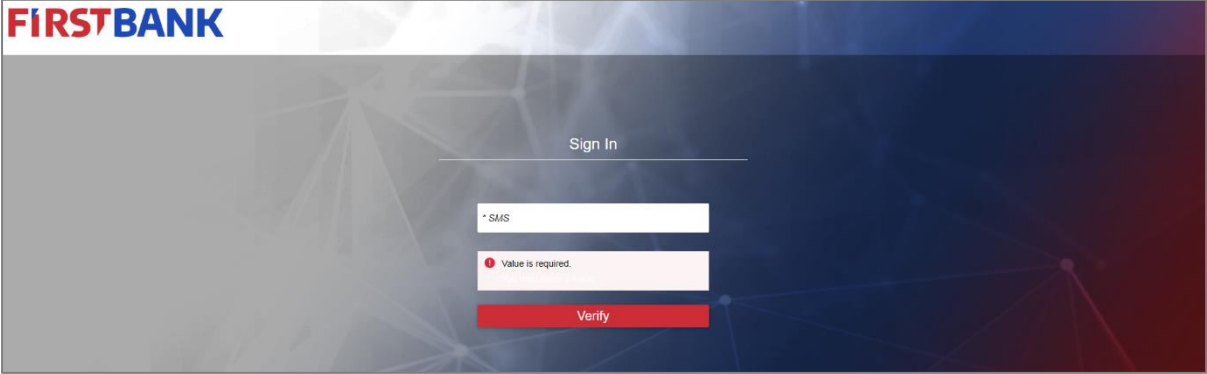
FIRSTBANK

Sign In

* Username

* Password

Login



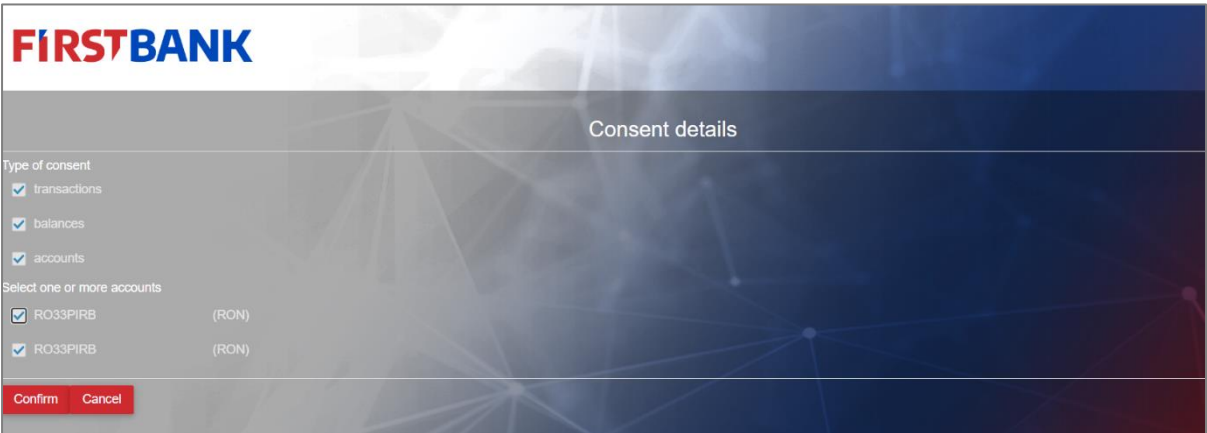
FIRSTBANK

Sign In

* SMS

Value is required.

Verify



FIRSTBANK

Consent details

Type of consent

- ☒ transactions
- ☒ balances
- ☒ accounts

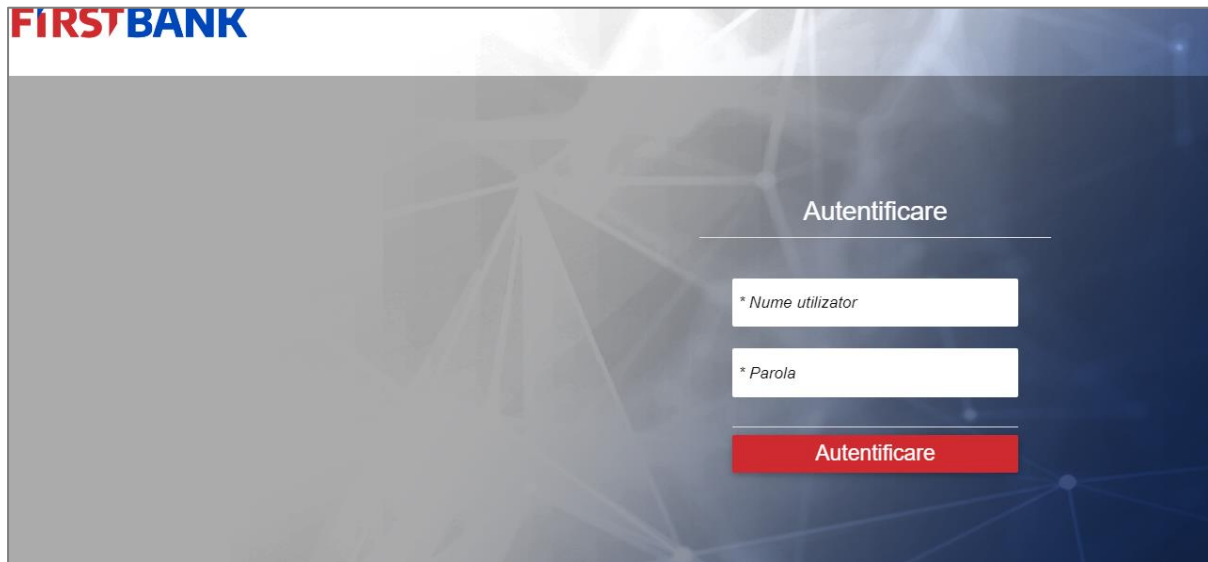
Select one or more accounts

- ☒ RO33PIRB (RON)
- ☒ RO33PIRB (RON)

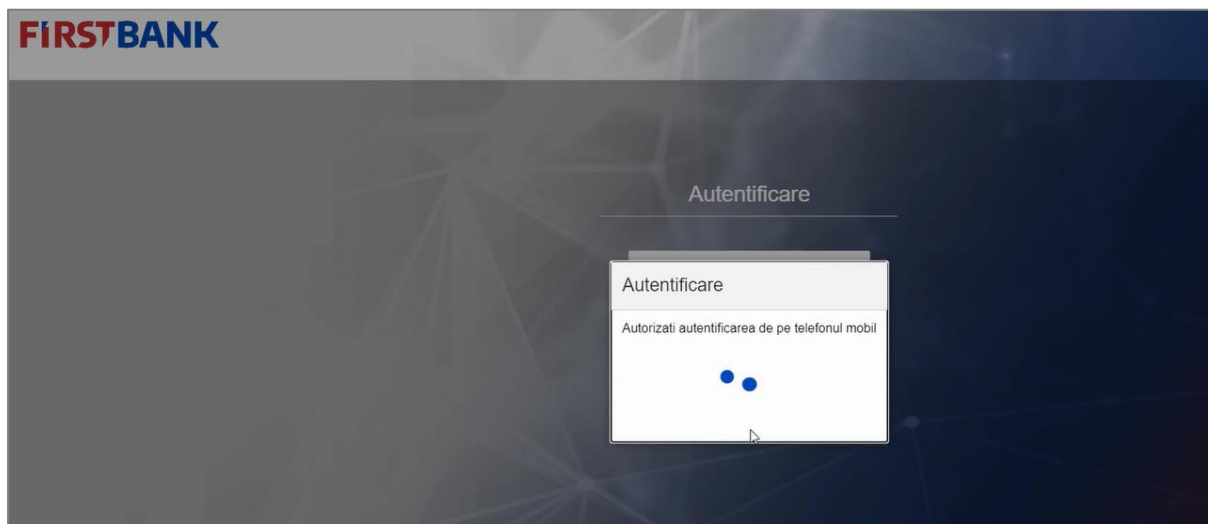
Confirm Cancel

After selecting at least one account and type of consent, and pressing "Confirm", thus authorising the consent based on granularity (which account, balances and transactions), developer will be redirected to the established page.

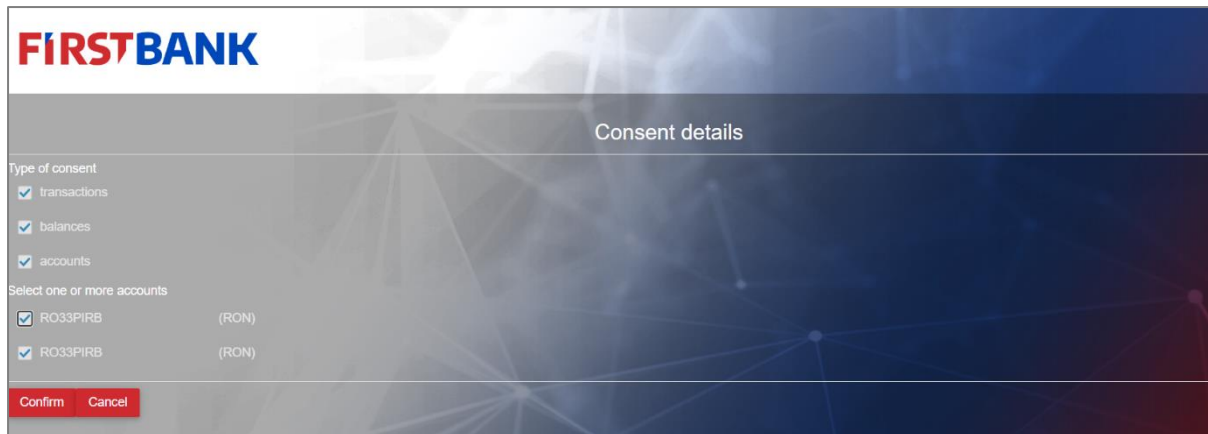
2.2 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application



The image shows the login page of FirstBank. The header features the "FIRSTBANK" logo in red and blue. The main content area has a dark blue background with a network pattern. The title "Autentificare" is centered above the login form. The form consists of two input fields: "* Nume utilizator" and "* Parola", both with white text on a light gray background. Below the fields is a red button with the text "Autentificare" in white.



The image shows the same login page as above, but with a modal dialog box open in the center. The dialog has a white background and a gray border. It contains the title "Autentificare" and the text "Autorizati autentificarea de pe telefonul mobil". Below the text are two blue dots, indicating a loading or processing state. A mouse cursor is visible near the bottom right of the dialog.



FIRSTBANK

Consent details

Type of consent

- ☒ transactions
- ☒ balances
- ☒ accounts

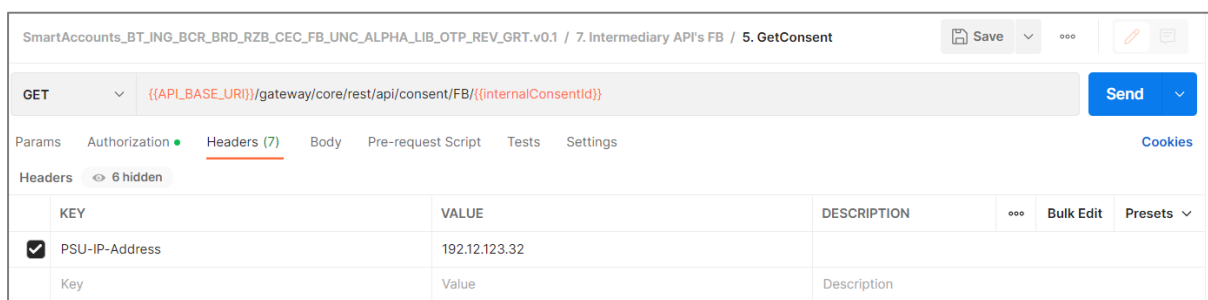
Select one or more accounts

- ☒ RO33PIRB (RON)
- ☒ RO33PIRB (RON)

Confirm **Cancel**

After selecting at least one account and type of consent, and pressing "Confirm", thus authorising the consent based on granularity (which account, balances and transactions), PSU will be redirected to the established page.

3. GetConsent



SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 5. GetConsent

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/FB/{{internalConsentId}}` **Send**

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO33PIRB42191A4819001000"
        },
        {
          "iban": "RO33PIRB42191A4819001001"
        }
      ],
      "balances": [
        {
          "iban": "RO33PIRB42191A4819001000"
        },
        {
          "iban": "RO33PIRB42191A4819001001"
        }
      ]
    }
  }
}
```

```

        "transactions": [
            {
                "iban": "RO33PIRB42191A4819001000"
            },
            {
                "iban": "RO33PIRB42191A4819001001"
            }
        ],
        "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": 4,
    "lastActionDate": "2023-02-08",
    "validUntil": "2023-05-08",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
}
}

```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 7. Intermediary API's ... / 6. GetConsentStat...

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/FB/{{internalConsentId}}/status` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
    "status": 200,
    "messageStatus": "Success",
    "payload": {
        "consentStatus": "valid"
    }
}

```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 7. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/FB/{{internalConsentId}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "276c8330-37ed-4b76-9789-c0278c4570d0",
      "iban": "RO33PIRB42191A4819001000",
      "currency": "RON",
      "name": "Popescu Ion",
      "product": null,
      "cashAccountType": "*",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    },
    {
      "resourceId": "aca299c1-8a75-4fd7-b280-1d663bfbfc3e",
      "iban": "RO33PIRB42191A4819001001",
      "currency": "RON",
      "name": "Popescu Ion",
      "product": null,
      "cashAccountType": "*",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    }
  ]
}
```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 8. GetBalances

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/FB/a1b1db08-b881-44d9-b5ce-9c8880c71314/{{internalConsentId}}/balances` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO33PIRB42191A4819001000"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 163079.18
        },
        "balanceType": "closingBooked",
        "referenceDate": "2018-05-11",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}
```

7. GetTransactions

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/FB/a1b1db08-b881-44d9-b5ce-9c8880c71314/{{internalConsentId}}/transactions?bookingStatu: ...` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
☒ next	<code>{{next_page}}</code>				
Key	Value	Description			

GET ⌵ {{API_BASE_URI}}/gateway/core/rest/api/accounts/FB/a1b1db08-b881-44d9-b5ce-9c8880c71314/{{internalConsentId}}/transactions?bookingStatus:... Send ⌵

Params ● Authorization ● Headers (8) Body Pre-request Script Tests ● Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2023-01-01			
☒	dateTo	2023-02-08			
	Key	Value	Description		

GET ⌵ {{API_BASE_URI}}/gateway/core/rest/api/accounts/FB/a1b1db08-b881-44d9-b5ce-9c8880c71314/{{internalConsentId}}/transactions?bookingStatus:... Send ⌵

Params ● Authorization ● Headers (8) Body Pre-request Script Tests ● Settings Cookies

```

1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO33PIRB42191A4819001000"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "201074847",
          "entryReference": null,
          "endToEndId": null,
          "bookingDate": "2018-05-10",
          "valueDate": "2018-05-10",
          "executionDateTime": null,
          "transactionAmount": {
            "currency": "RON",
            "amount": 56.0
          },
          "transactionType": null,
          "exchangeRate": [],
          "creditorName": "POPESCU ION",
          "creditorAccount": {
            "iban": "RO33PIRB42191A4819001000"
          },
          "debtorName": null,
          "debtorAccount": {
            "iban": null
          }
        }
      ]
    }
  }
}

```

```

        "remittanceInformationUnstructured": "Internet Transfer to POP
ESCU ION",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    },
    {
        "transactionId": "201074892",
        "entryReference": null,
        "endToEndId": null,
        "bookingDate": "2018-05-10",
        "valueDate": "2018-05-10",
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "RON",
            "amount": 11.0
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": "POPESCU ION",
        "creditorAccount": {
            "iban": "RO33PIRB42191A4819001000"
        },
        "debtorName": null,
        "debtorAccount": {
            "iban": null
        },
        "remittanceInformationUnstructured": "Trs To: Popescu Ion",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    }
],
    "pending": [],
    "links": null
},
    "balances": []
}
}

```

8. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 7. Intermediary API's ... / 10. GetAccountDeta...
Save
Send

GET
{{APL_BASE_URI}}/gateway/core/rest/api/accounts/FB/a1b1db08-b881-44d9-b5ce-9c8880c71314/{{internalConsentId}}/details

Params
Authorization
Headers (7)
Body
Pre-request Script
Tests
Settings
Cookies

Headers
6 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "a1b1db08-b881-44d9-b5ce-9c8880c71314",
    "iban": "RO33PIRB42191A4819001000",
    "currency": "RON",
    "name": "Popescu Ion",
    "product": null,
    "cashAccountType": "*",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [],
    "sortCodeAccountNumber": null
  }
}
```

9. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 11 DeleteConsent

DELETE {{API_BASE_URI}}/gateway/core/rest/api/deleteConsent/FB/{{internalConsentId}}

Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

10. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 1.1 RefreshToken

POST

{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken

Send

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

Cookies

Headers

7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	{{(internalConsentId)}}				
☒	access_token	{{(access_token)}}				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 7. Intermediary API's FB / 1.1 RefreshToken

Save
...

POST
{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken
Send

Params
Authorization
Headers (9)
Body
Pre-request Script
Tests
Settings
Cookies

none
form-data
x-www-form-urlencoded
raw
binary
GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	refresh_token	{{refresh_token}}			
☒	client_id	{{client_id-partner}}			
	Key	Value	Description		

Response:

[illegible]

In case the "accessToken" expires, the response will have the following structure:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "Invalid access token"
  }
}
```

1. Authenticate

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 1. Authenticate

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/token` Send

Params Authorization Headers (9) **Body** Pre-request Script Tests Settings

☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL

KEY	VALUE	DESCRIPTION
☒ client_id	<code>{{(client_id-partner)}}</code>	
Key	Value	Description

2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 4. InitConsent

POST `{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}` Send

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	Content-Type	application/json				
☒	PSU-IP-Address	192.12.110.32				
☒	PSU-ID-Type	ALL				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 4. InitConsent

POST `{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}` Send

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies

☐ none ☐ form-data ☐ x-www-form-urlencoded ☒ raw ☐ binary ☐ GraphQL JSON Beautify

```
1 {
2   "codeBank": "UNC",
3   "periodOfValid": 90,
4   "psuEmail": "aaa.aaa@itsmartsystems.eu",
5   "psuIntermediarId": "324567",
6   "redirectURL": "https://google.com",
7   "TcAccepted": true
8 }
```

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://authorization.api-sandbox.unicredit.eu:8403/sandbox/psd2/bg/hydrogen/h014/loginPSD2_BG.html?consentId=2163b89f-de7e-422d-a074-6f75b65077bd&correlationId=B3L1GB&authorisationId=2163b89f-de7e-422d-a074-6f75b65077bd&country=RO&state=ZX1KbGJtTW1PaUpCTVRJNFewSkRMVWhUTWpVMklpd2lZV3huSWpvaVpHbHlJbJyAuLm4zdWNiVWk8wbkw3UWpHM1JLTk1VVKEuRmJkZXFGc09GTGhSLThTazRLbFlNdTFwRE1MRDlJTWRtOUFTTRkFMNDByb2RRZkM1NkRra25Rb1hyOE5zZ00zUjV5WDQyMnF5Y0E0ZDV0bEI2NXJMbmlhNjBYbGlqNm1ZR2tLcXN0TEN4TFpYNHBmb2czZ3ZxRTg5TFZ6U0U9kZ1QubVpoe191WjhlcGRvZnFMX1M0WXo3UQ=="
      }
    }
  }
}
```

2.1 initCosentin SANDBOX – the example below shows how the developer will interact with bank's internet banking application



Sign in with your UniCredit Credentials

Username

Password

SIGN IN



Sign in with your UniCredit Credentials

01PSD2Test

SIGN IN



GRANT YOUR CONSENTS

			Select all Accounts	Select all Balances	Select all Transactions
#	Account	Currency	Accounts	Balance	Transactions
1	RO32BACX0000000515979310	RON	☒	☒	☒
2	RO53BACX0000000515979320	EUR	☒	☒	☒
3	RO60BACX0000000515979000	RON	☒	☒	☒

GRANT CONSENTS

After selecting at least one account and type of consent, and pressing "GRANT CONSENTS", thus authorising the consent based on granularity (which account, balances and transactions), developer will be redirected to the established page.

2.2 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application

Bine ai venit!

Nume utilizator

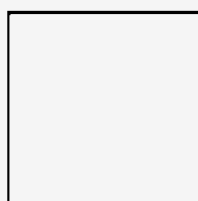
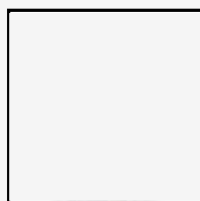
Introduceți numele de utilizator

Această valoare este necesară

CONTINUĂ

SELECTEAZĂ IMAGINEA DE SECURITATE

Accesezi aplicația de pe un browser sau un computer nou, așa că te rugăm să ne confirmi imaginea de securitate. Îți reamintim că imaginea de securitate apare în meniul de setări, tab-ul de securitate.



SELECTEAZĂ

Imaginea de securitate pe care o alegi va întări securitatea aplicației Online Banking. Mai multe detalii găsiți în acest document.

Dacă întâmpini probleme, te rugăm să ne contactezi la:

Telefon

+40 21 200 2020 (apel tarif normal în rețeaua fixa Telekom Romania)
(interior 1116 or 11232)

E-mail

BusinessNet: businessnet@unicredit.ro



SA

[SCHIMBĂ NUME UTILIZATOR](#)

Cod de securitate

Acestă valoare este necesară

ACCESARE

Account Information Service Consent



Consent ID

Current status

Received

Expiration date

01.05.2023

TPP Name

SMART FINTECH S.R.L.

Country registration number

Country of registration

RO

TPP National Competent Authority

NBR

Permissions and accounts

• Account Details

☐
☐
☐ Select all

08 1002 | SAVINGS ACCOUNT | RON

08 1000 | CURRENT ACCOUNT | RON

• Account Balances

☐
☐
☐ Select all

02 | SAVINGS ACCOUNT | RON

02 00 | CURRENT ACCOUNT | RON

• Account Transactions

☐
☐
☐ Select all

| SAVINGS ACCOUNT | RON

| CURRENT ACCOUNT | RON

With this new consent any other consent offered to the same account information service provider, if it

After selecting at least one account and type of consent, and authorising the consent based on granularity (which account, balances and transactions), PSU will be redirected to the established page.

3. GetConsent

The screenshot shows a REST client interface with the following details:

- URL:** `{{API_BASE_URI}}/gateway/core/rest/api/consent/UNC/{{internalConsentId}}`
- Method:** GET
- Headers (8):**

KEY	VALUE	DESCRIPTION
☒ PSU-IP-Address	192.12.110.32	
☒ Content-Type	application/json	
Key	Value	Description
- Buttons:** Save, Send, Bulk Edit, Presets

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO32BACX0000000515979310"
        },
        {
          "iban": "RO53BACX0000000515979320"
        },
        {
          "iban": "RO60BACX0000000515979000"
        }
      ],
      "balances": [
        {
          "iban": "RO32BACX0000000515979310"
        },
        {
          "iban": "RO53BACX0000000515979320"
        },
        {
          "iban": "RO60BACX0000000515979000"
        }
      ],
      "transactions": [
        {
          "iban": "RO32BACX0000000515979310"
        },
        {
          "iban": "RO53BACX0000000515979320"
        }
      ]
    }
  }
}
```

```

    },
    {
      "iban": "RO60BACX0000000515979000"
    }
  ],
  "availableAccounts": null
},
"consentStatus": "valid",
"frequencyPerDay": 4,
"lastActionDate": "2023-02-08",
"validUntil": "2023-05-08",
"recurringIndicator": true,
"combinedServiceIndicator": null,
"creationDate": null
}
}

```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.... / 8. Intermediary API's U... / 6. GetConsentStat...

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/consent/UNC/{{(internalConsentId)}}/status` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.110.32				
Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "valid"
  }
}

```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 7. GetAccounts

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/UNC/{{(internalConsentId)}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "RO32BACX0000000515979310",
      "iban": "RO32BACX0000000515979310",
      "currency": "RON",
      "name": "RON Acc for 01PSD2Test",
      "product": "RBN",
      "cashAccountType": "CACC",
      "status": "enabled",
      "bic": "BACXROBUXXX",
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    },
    {
      "resourceId": "RO53BACX0000000515979320",
      "iban": "RO53BACX0000000515979320",
      "currency": "EUR",
      "name": "EUR Acc for 01PSD2Test",
      "product": "RBN",
      "cashAccountType": "CACC",
      "status": "blocked",
      "bic": "BACXROBUXXX",
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    },
    {
      "resourceId": "RO60BACX0000000515979000",
      "iban": "RO60BACX0000000515979000",
      "currency": "RON",
      "name": "RON Acc for 01PSD2Test",
      "product": "RBN",
      "cashAccountType": "CACC",
      "status": "enabled",
```

```

        "bic": "BACXROBUXXX",
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
}
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 8. GetBalances

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/UNC/RO32BACX0000000515979310/{{internalConsentId}}/balances` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO32BACX0000000515979310",
      "currency": "RON"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 4500.16
        },
        "balanceType": "expected",
        "referenceDate": null,
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}

```


}

7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 8. Intermediary API's UN... / 9. GetTransactio...

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	next	{{next_page}}				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 8. Intermediary API's UN... / 9. GetTransactio...

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2022-08-18			
☒	dateTo	2022-08-18			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 8. Intermediary API's UN... / 9. GetTransactio...

GET Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

```
1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }
```

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO32BACX0000000515979310",
      "currency": "RON"
    },
    "transactions": {
```

```

        "booked": [],
        "pending": [],
        "links": null
    },
    "balances": []
}
}

```

8. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 8. Intermediary API's U... / 10. GetAccountDeta...

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/UNC/RO32BACX0000000515979310/{{internalConsentId}}/details` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "RO32BACX00000000515979310",
    "iban": "RO32BACX00000000515979310",
    "currency": "RON",
    "name": "RON Acc for 01PSD2Test",
    "product": "RBN",
    "cashAccountType": "CACC",
    "status": "enabled",
    "bic": "BACXROBUXXX",
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [],
    "sortCodeAccountNumber": null
  }
}

```

9. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 11 DeleteConsent

DELETE `{{(API_BASE_URI)}}gateway/core/rest/api/deleteConsent/UNC/{{(internalConsentId)}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

10. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	<code>{{(internalConsentId)}}</code>				
☒	access_token	<code>{{(access_token)}}</code>				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 8. Intermediary API's UNC / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	refresh_token	<code>{{(refresh_token)}}</code>			
☒	client_id	<code>{{(client_id-partner)}}</code>			
	Key	Value	Description		

}

10. Revolut - Flow

1. Authenticate

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 1. Authenticate

Save

Send

POST

{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/token

Params

Authorization

Headers (9)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	client_id	{{(client_id-partner)}}			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 1. Authenticate

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token

Params Authorization Headers (8) Body Pre-request Script **Tests** Settings

```
1 var jsonData = JSON.parse(responseBody);
2 postman.setEnvironmentVariable("access_token", jsonData.payload.access_token);
3 postman.setEnvironmentVariable("refresh_token", jsonData.payload.refresh_token);
4 postman.setEnvironmentVariable("internalConsentId", jsonData.payload.internalConsentId);
```

Response:

{

2. initConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 4. InitConsent

POST

{{(API_BASE_URI)}/gateway/core/rest/api/initConsent/{{internalConsentId}}

Send

Params

Authorization

Headers (12)

Body

Pre-request Script

Tests

Settings

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

```
1  {
2    "codeBank": "REV",
3    "periodOfValid": 90,
4    "psuEmail": "aaa.aaa@itsmartsystems.eu",
5    "psuIntermediaryId": "324567",
6    "redirectURL": "https://google.com",
7    "TCAccepted": true
8  }
```

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "links": {
```

```

        "scaOAuth": {
            "href": "https://sandbox-
oba.revolut.com/ui/index.html?state=eyJlbmMiOiJBMTI4Q0JDLUhTMjU2IiwiYWxnIjoizGlyIiwiaY3R5IjoiaSldUIIn0..g7Y7KAqK-
v4TAqnIHizasg.tv06Wks9FitS0SpfyDPovk_2kghSVpyQyIEtC8zbklRylgdqs707n_tVd_SU1OVdy8tpT
d0JD2WneN9eF5skqD_eJWZ1vZbjtVwilmeey2Xe1azccLlcj9wBaQ80tblnwcesZVVXiZmKyW2-
CflQ2EUVO9pc2Ci6hU9k8Yl9BOhsbTqffeNp0WzoXS7rh9p0kE-oLelezICH7oZB4Sf-gOacn-
i2m0_wY7hGVmWqfLOU9CPwC9PN4zqfY5cFKT-
OZkE1DATRrl9zjKDS0Pn0IdoRWSYsAjdUNgYJaVUW6PZSZODEyVjIQIAmP0hMncya8SCoNRU5KiMFpSF1Y5
NVdMZejrqx25Owdk0XohnIwUwinW0vpzKqdWsQahePvoAtlYq6lnJKpUwCy3xZqfXZiBuMCUHSpprjH8dWp
5MoOnSq7Yw0ykKTSpuFPwrPasr1N1llVMELwMYm4Tn45Gj82xK_T4hCb1EZRCUDK1xKYuUK6kg-
FULclLU6ihmTYoQNF7hcTXPbzkPKM81H1MDjt3u6TDaiuLppcJRph8vMUqS3sg5LpGLSR9OEF_LubeZKcjP
cTSxR76yfTjK1-NEv8bHfzxwLzTbkW--weN_kH3JITzTZo08UzdA4dzzox-
GFFvkxOpOpyCKXg5q30L2KNTf8KUd0Fy_zGQaEvKvjEujSrbSQW8UM4pa8Zhs9BxHlh5bd8KnILVPWlWaz9i
Y4uG8ecTBQblfIMztRacDMgOS73ufF3nEwVSe2J6C264nyfOEbvew_LMEH9k2320SYAa9dlbXh4IF_VBPg8
qD-P5RRPvd839SdQHUbJ0xTwIr7ZDbW-Eeon9s5R4v-
5TPQrrqoToVJxqbbE6FS6qBHf2A3yCaZ72YjJmAEeupKestOBSEGWi-SP3PMuUAZoNyB9u3BQ8tterj-
p0alQ9V5lMyCy7I2CF5t4FRQnmMIaBNOj6WdmkwDadF9t86PE06gtubwkzTDRt4x5kZyRhFUj4VqmJrcPZ
CTnsAqPibmFk0EF2kjb_j9G8wDGHbTsTXiBaOJRelG4hw0ruLNomWsbkoXYybDkWYibk5QvpmYjk3L.spkU
X0Mad9l_fJlCsgPTQ&response_type=code%20id_token&client_id=224062b5-7bb5-45ce-8118-
c8900851bcae&redirect_uri=https://api.sandboxaccounts.smartfintech.eu/gateway/core/
rest/api/confirmation&scope=openid%20accounts&nonce=n-
0S6_WzA2Mj&request=eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCIsImtpZCI6IjM3MzA3NDIwLWRkMGMt
NGQzMylmZnJlTm0ZTU2YWUyOWI0NCJ9.eyJhdWQiOiIyMjU2IiwiaXN0IjY2U2ODExODkwMD
g1MWJjYWUwLCJpc3MiOiJzYW5kYm94LWlzcjYsInJlc3BvbmlX3R5cGUiOiJjb2RlIGlkX3Rva2VuIiwiaY
2xpZW50X2lkIjoiaSldIiwiaXN0IjY2U2ODExODkwMDg1MWJjYWUwLCJpc3MiOiJzYW5kYm94LWlzcjYsInJlc3BvbmlX3R5cGUiOiJjb2RlIGlkX3Rva2VuIiwiaY
IjoiaHR0cHM6Ly9hcGkuc2FuZGJveGFjY291bnRzLnNtYXJ0ZmludGVjaC5ldS9nYXRld2F5L2NvcuUvcuV
zdc9hcGkvY29uZmlybWV0aW9uIiwic2NvcGUiOiJvcGVuaWQgYWNjb3VudHMiLCJjbGFpbXMiOmsiaWRfdG
9rZW4iOmsib3BlbmJhbmtpbmdfaW50ZW50X2lkIjpw7InZhbHVlIjoiaGQxNDgyYzQtOGFiNC00MmFmLWJkO
DQtMjMwYTU4YTlFmNmQwIiwiaXN0IjY2U2ODExODkwMDg1MWJjYWUwLCJpc3MiOiJzYW5kYm94LWlzcjYsInJlc3BvbmlX3R5cGUiOiJjb2RlIGlkX3Rva2VuIiwiaY
CjreFbDmn3oLViaKjHNPPvqxFOyd8lMmZzGA_eqpgKEbAxbZMWcE8E8cTvZW-
aEKXKa3IN9IsRFucxqMG6OhQjZR4Oe5i1wchWuFrbm4tGGVCBbqq9sECKz36MpnvXPg7pI-
4Jgb6DTJ87atpUtNp6XJRvx4qOF4IBbDQ9XG54wonIazxl8kRNBPGCbx2Jwdp61Ha6LQeLizPcbNjCnxgU
hzLwMIL7WQdsQsIVIGuQ0o3iHi2_2tMge0ZoSpPoBvlpnQu3BhEOFlj3VL8XoGcs_oz-
fYPhvkvnimksBv3aPYElmGcab6WNF4A"
        }
    }
}

```

2.1 initCosent in SANDBOX – the example below shows how the developer will interact with bank's internet banking application

Sign in to Revolut

To authorise SmartAccounts Sandbox

Personal

Business

Code
+44

Mobile phone number

Sign in to your Revolut account. The payment or account information request will be initiated by the Revolut entity with which you have your account. If you'd like to find out more about which Revolut entity you receive services from, or if you have any other questions, get in touch using our in-app chat feature. You can also get more info on [our help page](#).

Continue

<

Enter your Revolut app passcode

Please confirm that you own the account associated with number +44

1

2

3

4

5

6

7

8

9

0

Enter 6 digit code

Code

451-390

If you have not got the code for 2 minutes. [Try again](#)

Continue

Accounts access request

Authorise **SmartAccounts Sandbox** to read your accounts information. Permission will expire on 8 May 2023 (in 89 days).

Choose accounts

GBP · British Pound

£982,060

☒

EUR · Euro

€1,000,000

☒

USD · United States...

\$1,000,000

☒

Info I'm providing [Show](#)

Authorise



Access granted

You will be now redirected back to SmartAccounts Sandbox

After selecting accounts and pressing "Authorise", thus authorising the consent for selected account(s) developer will be redirected to the established page.

2.2 initCosent in PROD – the example below shows how the PSU will interact with bank's internet banking application

Sign in to Revolut

To authorise

Personal

Business



Switch to Personal account
Continue in Revolut



Sign in to your Revolut account. The payment or account information request will be initiated by the Revolut entity with which you have your account. If you'd like to find out more about which Revolut entity you receive services from, or if you have any other questions, get in touch using our in-app chat feature. You can also get more info on [our help page](#).

Log in to Revolut

 +40

[Lost access to phone number](#)

Continue

Don't have an account?

Sign up



Log in with QR code

Scan this code with your phone camera to log in instantly. Revolut app version 8.93 or higher is required

After inserting phone number, PSU will be redirected into a page where Revolut account passcode must be inserted (not card's PIN).

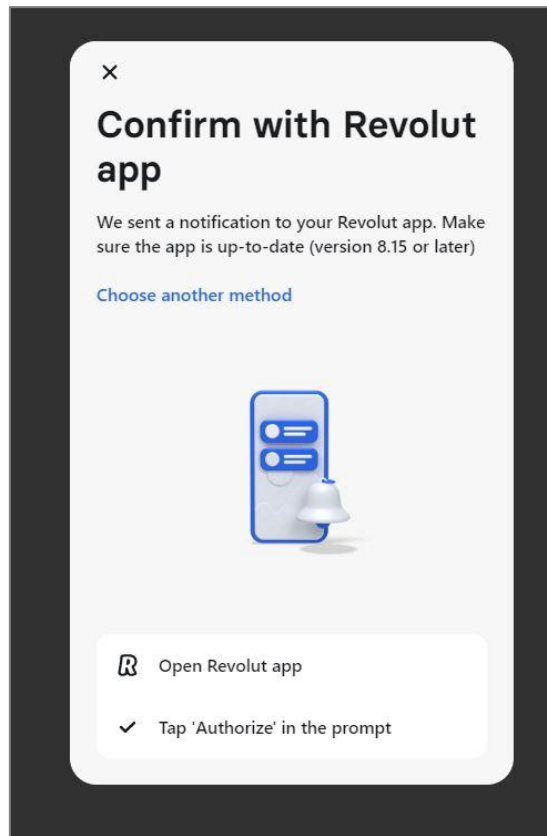
←

Enter passcode

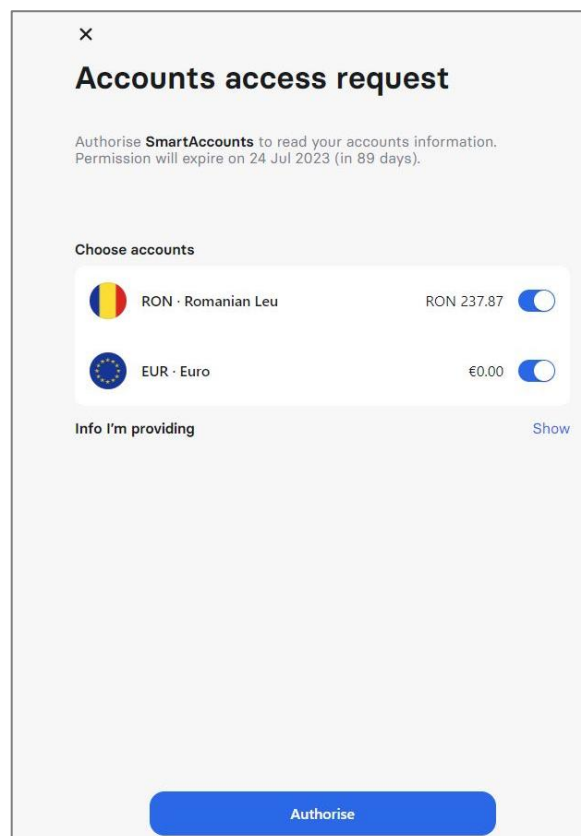
Only digits are allowed

[Forgot your passcode?](#)

Continue



After tapping "Authorize" in the prompt from Revolut APP, PSU will be redirected into the web page below.



←

Enter your Revolut passcode

This is the 4-digit security passcode you set in the Revolut app

Four input boxes for a 4-digit passcode.

←

6-digit code

Please enter the code we've sent to +407 8.

Six input boxes for a 6-digit code.

After inserting SMS code, PSU will be redirected to the established page.

3. GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 5. GetConsent

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/consent/REV/{{(internalConsentId)}}` Send

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.110.32				
☒	Content-Type	application/json				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": null,
    "lastActionDate": "2023-02-08",
    "validUntil": "2023-05-08",
    "recurringIndicator": null,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}

```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 12. Intermediary API's R... / 6. GetConsentStat...

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/REV/{{internalConsentId}}/status` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.110.32				
Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "valid"
  }
}

```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 7. GetAccounts

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/REV/{{internalConsentId}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "b66af2e5-9dcf-4520-9fd2-12a451ae4309",
      "iban": null,
      "currency": "GBP",
      "name": "Jan Smith",
      "product": null,
      "cashAccountType": "CurrentAccount",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": "60424981765417"
    },
    {
      "resourceId": "1452fe59-464b-4aa4-9d8c-68172271bf7e",
      "iban": "DK2377733760723902",
      "currency": "EUR",
      "name": "Jan Smith",
      "product": null,
      "cashAccountType": "CurrentAccount",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    },
    {
      "resourceId": "fb42d579-437e-4115-8829-40b0eca04001",
      "iban": "DK6705166603207318",
      "currency": "USD",
      "name": "Jan Smith",
      "product": null,
      "cashAccountType": "CurrentAccount",
      "status": null,

```

```

        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
}
]
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 8. GetBalances
Save
Send

GET
{{API_BASE_URI}}/gateway/core/rest/api/accounts/REV/fb42d579-437e-4115-8829-40b0eca04001/((internalConsentId))/balances

Params
Authorization
Headers (7)
Body
Pre-request Script
Tests
Settings
Cookies

Headers
6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {},
    "balances": [
      {
        "balanceAmount": {
          "currency": "USD",
          "amount": 1000000.0
        },
        "balanceType": "InterimAvailable",
        "referenceDate": "2020-08-24",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}

```


7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 12. Intermediary API's R... / 9. GetTransactio...

GET Send

Params • Authorization • Headers (8) Body Pre-request Script Tests • Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
☒	next	{{next_page}}				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 12. Intermediary API's R... / 9. GetTransactio...

GET Send

Params • Authorization • Headers (8) Body Pre-request Script Tests • Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	bookingStatus	booked			
☒	dateFrom	2022-12-09			
☒	dateTo	2023-02-08			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 12. Intermediary API's R... / 9. GetTransactio...

GET Send

Params • Authorization • Headers (8) Body Pre-request Script Tests • Settings Cookies

```
1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }
```

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {},
    "transactions": {
      "booked": [],
      "pending": [
        {
          "transactionId": "63b8295a-355e-a081-8b28-e645cc07a0d3",
          "entryReference": null,
          "endToEndId": null,

```

```

        "bookingDate": "2023-01-06",
        "valueDate": null,
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "GBP",
            "amount": 50.0
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": null,
        "creditorAccount": {
            "iban": null
        },
        "debtorName": null,
        "debtorAccount": {
            "iban": null
        },
        "remittanceInformationUnstructured": null,
        "proprietaryBankTransactionCode": "TRANSFER",
        "additionalInformation": "To ReceiverCo ReceiverRef",
        "transactionStatus": "Pending",
        "creditDebitIndicator": "Debit"
    }
],
"links": null
},
"balances": []
}
}

```

8. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 12. Intermediary API's R... / 10. GetAccountDeta...

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/REV/b66af2e5-9dcf-4520-9fd2-12a451ae4309/{{internalConsentId}}/details` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "b66af2e5-9dcf-4520-9fd2-12a451ae4309",
    "iban": null,
    "currency": "GBP",
    "name": null,

```

```

        "product": null,
        "cashAccountType": "CurrentAccount",
        "status": null,
        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
}

```

9. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 12. Intermediary API's RE... / 11 DeleteConse...

DELETE `{{(API_BASE_URI)}}/gateway/core/rest/api/deleteConsent/REV/{{(internalConsentId)}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}

```

10. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 12. Intermediary API's REV / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	<code>{{(internalConsentId)}}</code>				
☒	access_token	<code>{{(access_token)}}</code>				
	Key	Value	Description			

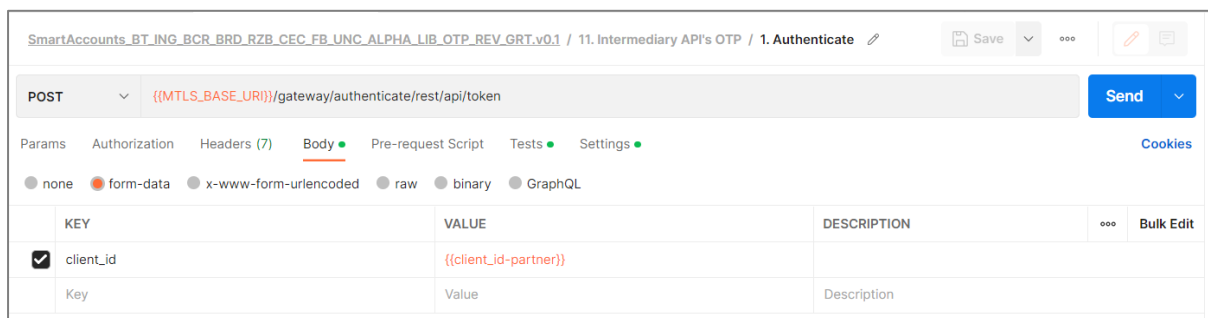

```
XpwIjoidGVzdGNsaWVudHYxIiwic2Vzc2lvdj9zdGF0ZSI6Ijk0OGFhNjA4LTk0ODgtNGIyZS1hNDc4LTdl
ODU2MjI5M2Q4MCI5InNjb3B1Ijoic21hcnRhY2NvdW50c19jb25zZW50X2lkX2NsYWltOjExNjMzMzMCJ9.UO
Xt4a76Jm4w2dazBgQK-bfQfRg2r_OjSZFJ_GB1Evc"
    }
}
```

In case the "accessToken" expires, the response will have the following structure:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "Invalid access token"
  }
}
```

11. OTP Bank - Flow

1. Authenticate



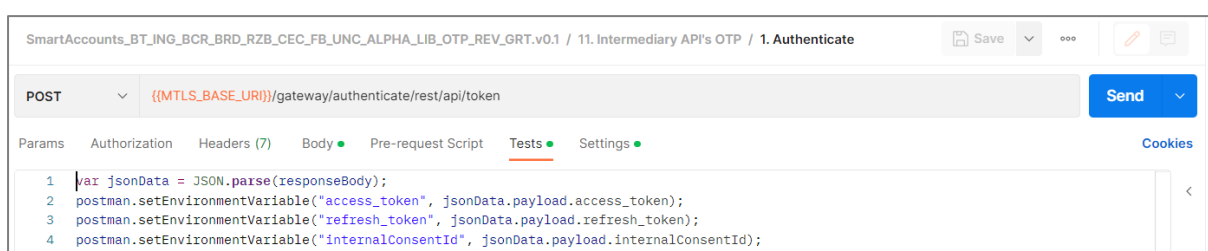
SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 1. Authenticate

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

KEY	VALUE	DESCRIPTION
☒ client_id	{{client_id-partner}}	
Key	Value	Description



SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 1. Authenticate

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token

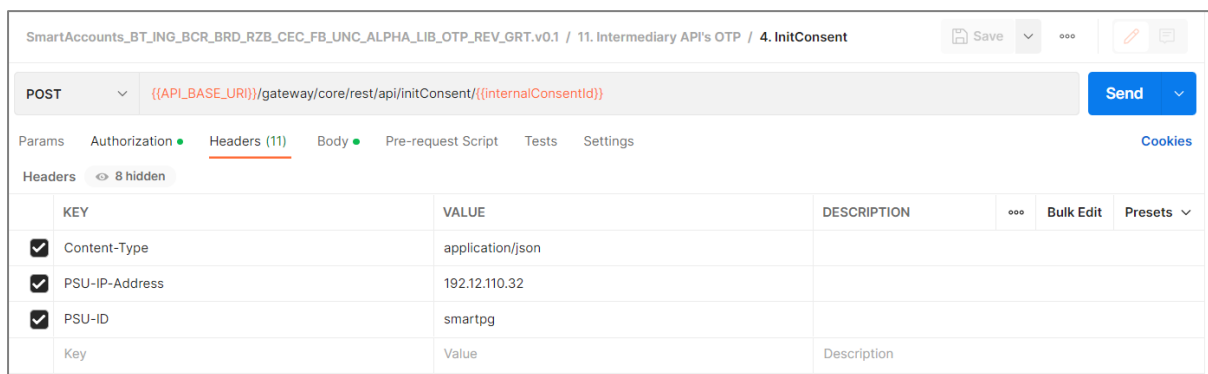
Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

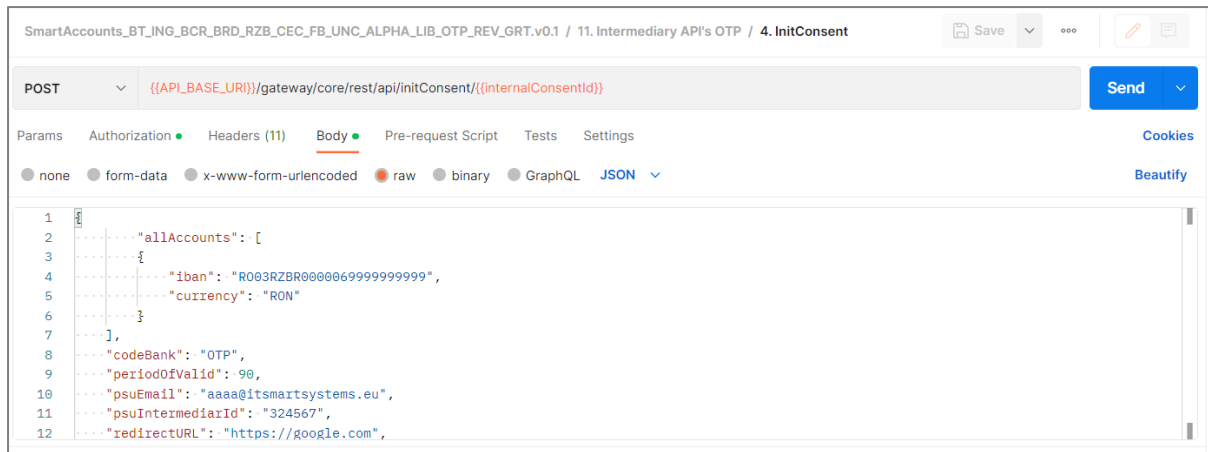
```
1 var jsonData = JSON.parse(responseBody);
2 postman.setEnvironmentVariable("access_token", jsonData.payload.access_token);
3 postman.setEnvironmentVariable("refresh_token", jsonData.payload.refresh_token);
4 postman.setEnvironmentVariable("internalConsentId", jsonData.payload.internalConsentId);
```

Response:

```
{
  "status": 200,
  "messageStatus": "SUCCESS",
  "payload": {
    "internalConsentId": 116346,
    "access_token": "eyJhbGciOiJSUzI1NiIsInR5cCI6IkpXLTk0ODgtNGIyZS1hNDc4LTdl
1YbUhFQ0I0NkZBckhZS2U0QndGYXFiMi1NUUF4SEJXYmlxb2ZJIn0.eyJleHAiOjE2NzU5MjYxNjgsImhhd
CI6MTY3NTkyNTg2OCwianRpIjoizWYxMDFmMGItMzk5NC00YzY2LWEyNWetNjBlNDZjNjNmZTA1IiwiaXNz
IjoiaHR0cDovL2tleWNSb2FrLWFwcC1zZXJ2aWNlOjgwODAvYXV0aC9yZWFSbXMvc21hcnRhY2NvdW50cyI
```

```
"refresh_token": "eyJhbGciOiJIUzI1NiIsInR5cCI6IkpzZW50Lm1kb2UiLCwiaWFia2lkIiA6ICI3OWNhY2RmMlklkjk3LTQ0YWItYjY5Ni0NTNtO0DRmYTU2ZDZifQ.eyJleHAiOjE2ODM3MDE4NjgsImhhdCI6MTY3NTkyNTg2OCwianRpIjoiodTdlYzk3NTQtYzAzMS00OTNkLTkxZjU0OTkxZjMwOWElOWIxIiwiaXNzIjoiaHR0cDovL2tleWNsb2FrLWFWfcClzZXJ2aWNlOjgwODAvYXV0aC9yZWZfbXMvc21hcHRhY2NvdW50cyIsImF1ZCI6Imh0dHA6Ly9rZXljbjB9ay1hcHAtc2VydmlljZTo4MDgwL2FldGvcmVhbGlzL3NtYXJ0YWNjb3VudHMlLCJzdWIiOiI2NmE2ZTIYMCI1OWE0LTQ2M2ItYWFMzilmlOTc4MTU2NDc3ZDMiLCJOeXAiOiJPZmZsaW51IiwiaXpwIjoicGVzdGNSaWVudHYxIiwic2Vzc2lvb19zdGF0ZSI6IjVmZDg3ZWRLWfjZDQ0tNGE2ZC04MmRmLTliMmM5YWEyNDMwYyIsInNjb3BlIjoic21hcHRhY2NvdW50c19jb25zZW50X2lkX2NsYWltOjExNjM0NiJ9.kuysB-RLNEgsuFBYPGKHOKU_ITk9-EozllJtbADtNdE"
```





Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://api.sandboxaccounts.smartfintech.eu/gateway/core/rest/api/confirmation?lang=en&state=QULTJk9UUCZhYTA5NjNmMy1hNzAxLTQ4MjAtMmVlNC1mNGFjMTg3NjljM2UmaHR0cHM6Ly9zbWZyYdHBnLWh1Yi5wcm9kLmNvbS5zbWZyYdGZpbnRlY2g="
      }
    }
  }
}

```

2.3 initCosent in SANDBOX – in SANDBOX environment OTP does not redirect into front-end

2.4 initConsent in PROD – in PROD environment OTP redirects into front-end. The example below shows how the PSU will interact with bank's internet banking application.



AGREEMENT.CONFIRM_LOADER_INFO

☒ 04
RC

RON

Valabil până la

09.05.2023

Accesari pe zi:

4

Anulează

After completing fields "Utilizator:" and "Parola:", and pressing "Autentificare", thus authorising the consent, PSU or developer will be redirected to the established page.

3 GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 5. GetConsent
Save

GET
{{API_BASE_URI}}/gateway/core/rest/api/consent/OTP/{{internalConsentId}}
Send

Params
Authorization
Headers (8)
Body
Pre-request Script
Tests
Settings

Headers
6 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.110.32				
☒ Content-Type	application/json				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
```



```

    "access": {
      "accounts": [],
      "balances": [
        {
          "iban": "RO77OTP116000XXXXXXRO01"
        },
        {
          "iban": "RO34OTP116000XXXXXXEU01"
        }
      ],
      "transactions": [
        {
          "iban": "RO77OTP116000XXXXXXRO01"
        },
        {
          "iban": "RO34OTP116000XXXXXXEU01"
        }
      ],
      "availableAccounts": null
    },
    "consentStatus": "valid",
    "frequencyPerDay": null,
    "lastActionDate": null,
    "validUntil": "2021-01-30",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}

```

4 GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 11. Intermediary API's O... / 6. GetConsentStat...

GET `{{API_BASE_URI}}/gateway/core/rest/api/consent/OTP/{{internalConsentId}}/status` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.110.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "valid"
  }
}

```

5 GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 7. GetAccounts Save ... Send

GET ▼ `{{API_BASE_URI}}/gateway/core/rest/api/accounts/OTP/{{internalConsentId}}` Send

Params Authorization ● Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "X045XS",
      "iban": "RO77OTPV116000XXXXXXRO01",
      "currency": "RON",
      "name": "77-RO01",
      "product": null,
      "cashAccountType": "Cont curent",
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [
        {
          "balanceAmount": {
            "currency": "RON",
            "amount": 42665.74
          },
          "balanceType": "interimBooked",
          "referenceDate": null,
          "creditLimitIncluded": null,
          "creditDebitIndicator": null
        },
        {
          "balanceAmount": {
            "currency": "RON",
            "amount": 42638.84
          }
        }
      ]
    }
  ]
}
```

```

        "balanceType": "interimAvailable",
        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null
    }
],
"sortCodeAccountNumber": null
},
{
    "resourceId": "83XISG",
    "iban": "RO090TPV300000XXXXXXHU01",
    "currency": "HUF",
    "name": "09-HU01",
    "product": null,
    "cashAccountType": "Cont curent",
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
        {
            "balanceAmount": {
                "currency": "HUF",
                "amount": 0.0
            },
            "balanceType": "interimBooked",
            "referenceDate": null,
            "creditLimitIncluded": null,
            "creditDebitIndicator": null
        },
        {
            "balanceAmount": {
                "currency": "HUF",
                "amount": 0.0
            },
            "balanceType": "interimAvailable",
            "referenceDate": null,
            "creditLimitIncluded": null,
            "creditDebitIndicator": null
        }
    ],
    "sortCodeAccountNumber": null
}
]
}

```

6 GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV... / 11. Intermediary API's ... / 8. GetBalan...

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/OTP/XO45XS/{{(internalConsentId)}}/balances` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO77OTPV116000XXXXXXRO01"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 4551.39
        },
        "balanceType": "interimBooked",
        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      },
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 4551.39
        },
        "balanceType": "interimAvailable",
        "referenceDate": null,
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": null,
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}
```

7 GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_R... / 11. Intermediary API's... / 9. GetTransact...

GET Send

Params • Authorization • Headers (7) Body Pre-request Script Tests • Settings Cookies

Headers ☐ 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_R... / 11. Intermediary API's... / 9. GetTransact...

GET Send

Params • Authorization • Headers (7) Body Pre-request Script Tests • Settings Cookies

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	dateFrom	2022-08-01			
☒	dateTo	2022-08-20			
☒	bookingStatus	booked			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_R... / 11. Intermediary API's... / 9. GetTransact...

GET Send

Params • Authorization • Headers (7) Body Pre-request Script Tests • Settings Cookies

```
1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }
```

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {},
    "transactions": {
      "booked": [
        {
          "transactionId": "120963140",
          "entryReference": null,
          "endToEndId": null,
          "bookingDate": "2017-12-18",
```

```

        "valueDate": "2017-12-18",
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "RON",
            "amount": 40.0
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": null,
        "creditorAccount": {
            "iban": null
        },
        "debtorName": "internal",
        "debtorAccount": {
            "iban": ""
        },
        "remittanceInformationUnstructured": "Depunere numerar: dep num
//447428373/MOLNAR ROBERT MOLNAR ROBERT",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    },
    {
        "transactionId": "144007637",
        "entryReference": null,
        "endToEndId": null,
        "bookingDate": "2018-05-22",
        "valueDate": "2018-05-22",
        "executionDateTime": null,
        "transactionAmount": {
            "currency": "RON",
            "amount": 1235.0
        },
        "transactionType": null,
        "exchangeRate": [],
        "creditorName": null,
        "creditorAccount": {
            "iban": null
        },
        "debtorName": "internal",
        "debtorAccount": {
            "iban": ""
        },
        "remittanceInformationUnstructured": "Incasare OP-
22313534/STRATOLYTICS SRL : SALAR 2018 Aprilie",
        "proprietaryBankTransactionCode": null,
        "additionalInformation": null,
        "transactionStatus": null,
        "creditDebitIndicator": null
    }
}

```

```

    ],
    "pending": [],
    "links": null
  },
  "balances": []
}
}

```

8 GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 10. GetAccountDetails

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/OTP/XO45XS/{{(internalConsentId)}}/details` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "XO45XS",
    "iban": "RO770TPV116000XXXXXXRO01",
    "currency": "RON",
    "name": "CurrentRO1",
    "product": null,
    "cashAccountType": null,
    "status": null,
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [],
    "sortCodeAccountNumber": null
  }
}

```

9 DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 11 DeleteConsent

DELETE {{API_BASE_URI}}/gateway/core/rest/api/deleteConsent/OTP/{{internalConsentId}}

Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

10 RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 1.1 RefreshToken

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken

Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	{{internalConsentId}}				
☒	access_token	{{access_token}}				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 11. Intermediary API's OTP / 1.1 RefreshToken

POST {{MTLS_BASE_URI}}/gateway/authenticate/rest/api/refreshToken

Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	refresh_token	{{refresh_token}}			
☒	client_id	{{client_id-partner}}			
	Key	Value	Description		

}

1. Authenticate

The screenshot shows the Postman REST client interface. At the top, the URL bar displays 'SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 1. Authenticate'. Below the URL bar, the method is set to 'POST' and the path is '{{MTLS_BASE_URI}}/gateway/authenticate/rest/api/token'. The 'Tests' tab is active, showing a JavaScript snippet for parsing the response body and setting environment variables for 'access_token', 'refresh_token', and 'internalConsentId'. The snippet is as follows:

```
1 var jsonData = JSON.parse(responseBody);  
2 postman.setEnvironmentVariable("access_token", jsonData.payload.access_token);  
3 postman.setEnvironmentVariable("refresh_token", jsonData.payload.refresh_token);  
4 postman.setEnvironmentVariable("internalConsentId", jsonData.payload.internalConsentId);
```

{

2. initConsent

The screenshot shows the Swagger UI for a REST API. The top bar indicates the API is 'SmartAccounts_BT_ING_BCR_RZD_CEB_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 4. InitConsent'. The main area shows a POST endpoint: '{(API_BASE_URI)}/gateway/core/rest/api/initConsent/{(internalConsentId)}'. The 'Body' tab is selected, showing a JSON payload:

```
{  "codeBank": "GRT",  "periodOfValid": 90,  "psuEmail": "aaaa@itsmartsystems.eu",  "psuIntermediaryId": "324567",  "redirectURL": "https://google.com",  "TCaccepted": true}
```

Response:

175

```

      "href": "https://api.sandboxaccounts.smartfintech.eu/gateway/core/
est/api/confirmation?response_type=code&client_id=jf9uzXRwWOnBkUc48Ax5&scope=openid
&redirect_uri=https://www.TPPurl.com&id=092bb59b-968a-43c8-91d3-
47e2c6bdbcf&type=c&state=eyJlbmMiOiJBMTI4Q0JDLUhTMjU2IiwiYWxnIjoizGlyIiwiY3R5Ijois
ldUin0..QLzvzGoH53Ue7Y17ANn9g.H0D_-
BzR7tQIPtGgK898Qn8slE7xhZs0icuQKPsZHYJOWe2GTUo82Jlx4fVHBoUMJ6Ccx9gaylmgS2G5-
q9Wh6heKqFKUhwoLThlv1RB41Z8Rz3jIdrHSGlqRfHvNU3_Yg4jP2Eo6xZsErE5v14ecx9Bn2I4X_5wKSno
_badZKiauFJQ2aXViIYoah1Y7rdtL91_HYyD-
ralg3I9ncUy3pmCr5o97ntRrTagA2ZdPF5EbaqiuzLNz2oOBQZBM4NUF4E1omNGEv1Vj45o0iNDs_O6nKx4
eSuEwXxSaXCrsUlsryLPZP5U_mlo0c9EewbSZvOXGpMkopnHAvpHVru-w22x-
xNSRxFukbuuwBccukMbMTQIX0GWOOfKxj9NoEw7pIB9W10Ix72rEMzuHhJ8T6B6AGF5_5yETlhLcftSzoUOy
qYZN1Kkw5eDnmTty7h-
vfwvViV6PktfASG5WuHNntLgTFknOkEivIndTmsH5MagZSxZlor2Rw8xWz25G6soEBvjY0VGmCmb5spADXX
esNRVYX-4leMYNdyCd3-QH_RnnIWHX902nYnwJgDvfj0zq7OApFO-
812bo34QpfwqawzaGOfQ7woy5DUuBvgDs8D39XLqQpdjm-
oSztfHpmBtGzcYNZIwtwG8uiC4BCpTmjMkMWzXnrKrHpWUV8_pvu5g7GQk_kQp13Jdjg9W6l3-
LIwtQ5ImYxKKjkOXlGf1YQyJ-AfmM40NdxnX_HXaThWpD-YHIAY-
12GZ3L0mNpIHCHtCr8DqGKYJfbc3kK1p3EtELO_EM2gNb6h7INTRPlOYKxq9YB-
XdV1ZGeJTs9ZKzCKsrOXk4YI-wS061Gh9cT1WoR9dZUQZKEI5866YTp68Z3EJkKSTysFxnHO3-
dDU8v19r2pGx52FjBq8o52Zetf_6rg8i8t66VaTDy6b7c9QiBR4kvJSbThzlbULVnWmKi36mg8EMychaRi-
USw9b_NFB3Y4VaGJqENFUS3ZTOwMhRULzAzSwk51aBmBtYRlhrRMuiZ-
9CEtf8ktCYIV9DQenhb0UuPnSdo2lw38IUxfOs9bGK6jc3_mh6f5wUxz.xgq7-aHW139czVNzw5cyQQ"
    }
  }
}

```

2.1 initCosentin SANDBOX – in SANDBOX environment GRT does not redirect into bank's front-end

2.1 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application

Garanti BBVA

Login

Please enter your customer number and password.

Customer number

Password

LOGIN

[I don't know my password](#)

Name and surname	LUCIAN	
Last login date	16/02/2023 14:18	
Login method	Login via Mobile Notification	
Mobile Device	Samsung ·	16/02/2023 14:18
Session information	TACTICAL 16/02/2023 14:19:32 Google Chrome	

 To approve the mobile notification **39** seconds left.

[SEND NOTIFICATION AGAIN](#)

After approving mobile notification, PSU will be redirected to the established page.

3. GetConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 5. GetConsent

GET [{{\(API_BASE_URI\)}}/gateway/core/rest/api/consent/GRT/{{\(internalConsentId\)}}](#) [Send](#)

Params Authorization Headers (8) Body Pre-request Script Tests Settings Cookies

Headers  6 hidden

KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.110.32				
☒ Content-Type	application/json				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [],
      "balances": [],
      "transactions": [],
      "availableAccounts": "allAccounts"
    },
    "consentStatus": "valid",
    "frequencyPerDay": 3,
    "lastActionDate": null,
    "validUntil": "2019-10-10",
    "recurringIndicator": true,
    "combinedServiceIndicator": null,
    "creationDate": null
  }
}
```

4. GetConsentStatus

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 13. Intermediary API's G... / 6. GetConsentStat...

GET Sending...

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.110.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "valid"
  }
}
```

5. GetAccounts

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 7. GetAccounts

GET Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "Uk8yMlVHQkwMDAwMDEyMDEyNzI4Uk90",
      "iban": "RO22UGBI0000012012728RON",
      "currency": "RON",
      "name": "RON Account",
      "product": null,
      "cashAccountType": "CACC",
      "status": "enabled",
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
    }
  ]
}
```

```

        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [
            {
                "balanceAmount": {
                    "currency": "RON",
                    "amount": 0.26
                },
                "balanceType": "openingBooked",
                "referenceDate": "2019-02-23",
                "creditLimitIncluded": "false",
                "creditDebitIndicator": null
            }
        ],
        "sortCodeAccountNumber": null
    },
    {
        "resourceId": "Uk80NFVHQkkwMDAwMDEyMDM0MzEyUk90",
        "iban": "RO44UGBI0000012034312RON",
        "currency": "RON",
        "name": "RON Account",
        "product": null,
        "cashAccountType": "CACC",
        "status": "enabled",
        "bic": null,
        "accountOfficerDescription": null,
        "openingDate": null,
        "customerSector": null,
        "customerType": null,
        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [
            {
                "balanceAmount": {
                    "currency": "RON",
                    "amount": 3.0
                },
                "balanceType": "openingBooked",
                "referenceDate": "2017-12-22",
                "creditLimitIncluded": "false",
                "creditDebitIndicator": null
            }
        ],
        "sortCodeAccountNumber": null
    }
]
}

```

6. GetBalances

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 8. GetBalances

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/GRT/Uk8yMIVHQkkwMDAwMDEyMDEyNzI4Uk9O/({{internalConsentId}})/balances` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO22UGBI0000012012728RON"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 0.26
        },
        "balanceType": "openingBooked",
        "referenceDate": "2019-02-23",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null,
        "lastChangeDateTime": "2019-02-23-04.37.26.177236",
        "lastCommittedTransaction": null,
        "transactionStatus": null
      }
    ]
  }
}
```

7. GetTransactions

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 13. Intermediary API's G... / 9. GetTransactio...

GET `{{API_BASE_URI}}/gateway/core/rest/api/accounts/GRT/Uk8yMIVHQkkwMDAwMDEyMDEyNzI4Uk9O/({{internalConsentId}})/transactions?dateFrom=20` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 13. Intermediary API's G... / 9. GetTransactio...

GET

Params • Authorization • Headers (7) Body Pre-request Script Tests • Settings [Cookies](#)

Query Params

	KEY	VALUE	DESCRIPTION	...	Bulk Edit
☒	dateFrom	2023-01-01			
☒	dateTo	2023-02-09			
☒	bookingStatus	booked			
	Key	Value	Description		

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 13. Intermediary API's G... / 9. GetTransactio...

GET

Params • Authorization • Headers (7) Body Pre-request Script Tests • Settings [Cookies](#)

```

1 const responseJson = pm.response.json();
2 let next = responseJson.payload.transactions.links;
3 if (next != null) {
4   postman.setEnvironmentVariable("next_page", next.next.href);
5 }
6 else {
7   postman.setEnvironmentVariable("next_page", null);
8 }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO22UGBI0000012012728RON"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "20190126083235988627",
          "entryReference": "2019-01-26-08.32.35.983153",
          "endToEndId": null,
          "bookingDate": "2019-01-26",
          "valueDate": "2019-01-28",
          "executionDateTime": null,
          "transactionAmount": {
            "currency": "RON",
            "amount": 1.0
          },
          "transactionType": null,
          "exchangeRate": [],
          "creditorName": "Creditor Name",
          "creditorAccount": {
            "iban": "RO22UGBI0000012012728RON"
          }
        }
      ]
    }
  }
}

```

```

    },
    "debtorName": "Debtor Name",
    "debtorAccount": {
        "iban": "RO22UGBI0000012012728RON"
    },
    "remittanceInformationUnstructured": null,
    "proprietaryBankTransactionCode": null,
    "additionalInformation": null,
    "smartRemittance": null,
    "transactionStatus": null,
    "creditDebitIndicator": null
},
{
    "transactionId": "20190223043726177236",
    "entryReference": "2019-02-23-04.37.26.173240",
    "endToEndId": null,
    "bookingDate": "2019-02-23",
    "valueDate": "2019-02-25",
    "executionDateTime": null,
    "transactionAmount": {
        "currency": "RON",
        "amount": 1.0
    },
    "transactionType": null,
    "exchangeRate": [],
    "creditorName": "Creditor Name",
    "creditorAccount": {
        "iban": "RO22UGBI0000012012728RON"
    },
    "debtorName": "Debtor Name",
    "debtorAccount": {
        "iban": "RO22UGBI0000012012728RON"
    },
    "remittanceInformationUnstructured": null,
    "proprietaryBankTransactionCode": null,
    "additionalInformation": null,
    "smartRemittance": null,
    "transactionStatus": null,
    "creditDebitIndicator": null
}
],
"pending": [],
"links": null
},
"balances": [
    {
        "balanceAmount": {
            "currency": "RON",
            "amount": 0.26
        },
        "balanceType": "openingBooked",

```

```

        "referenceDate": "2019-02-23",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null,
        "lastChangeDateTime": "2019-02-23-04.37.26.177236",
        "lastCommittedTransaction": "2019-02-23-04.37.26.173240",
        "transactionStatus": null
    }
}
}
}

```

8. GetTransactionsDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_G... / 13. Intermediary API's ... / 10. GetTransactionsDet...

GET `{{(API_BASE_URI)}}/gateway/core/rest/api/accounts/GRT/Uk8yMIVHQkwMDAwMDEyMDEyNzI4Uk9O/((internalConsentId))/transactions/20190126083` **Send**

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "transactionId": "20190126083235988627",
    "entryReference": "2019-01-26-08.32.35.983153",
    "endToEndId": null,
    "bookingDate": "2019-01-26",
    "valueDate": "2019-09-23",
    "transactionAmount": {
      "currency": "RON",
      "amount": 1.0
    },
    "transactionType": null,
    "creditorName": "Creditor Name",
    "creditorAccount": {
      "iban": "RO22UGBI0000012012728RON"
    },
    "debtorName": "Debtor NAME",
    "debtorAccount": {
      "iban": "RO22UGBI0000012012728RON"
    },
    "remittanceInformationUnstructured": null,
    "executionDateTime": null
  }
}

```

9. GetAccountDetails

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT... / 13. Intermediary API's G... / 11. GetAccountDeta...

GET Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION	...	Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "Uk8yMlVHQkkwMDAwMDEyMDEyNzI4Uk9O",
    "iban": "RO22UGBI0000012012728RON",
    "currency": "RON",
    "name": "Main Account",
    "product": null,
    "cashAccountType": "CACC",
    "status": "enabled",
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
    "accountUsage": null,
    "workingBalance": null,
    "onlineActualBalance": null,
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 0.26
        },
        "balanceType": "openingBooked",
        "referenceDate": "2019-02-23",
        "creditLimitIncluded": "false",
        "creditDebitIndicator": null
      }
    ],
    "sortCodeAccountNumber": null
  }
}
```

10. DeleteConsent

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v... / 13. Intermediary API's G... / 12 DeleteConse...

DELETE `{{(API_BASE_URI)}}/gateway/core/rest/api/deleteConsent/GRT/{{(internalConsentId)}}` Send

Params Authorization Headers (7) Body Pre-request Script Tests Settings Cookies

Headers 6 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	PSU-IP-Address	192.12.123.32				
	Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}
```

11. RefreshToken

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

Headers 7 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	internalConsentId	<code>{{(internalConsentId)}}</code>				
☒	access_token	<code>{{(access_token)}}</code>				
	Key	Value	Description			

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 13. Intermediary API's GRT / 1.1 RefreshToken

POST `{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken` Send

Params Authorization Headers (9) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL

	KEY	VALUE	DESCRIPTION		Bulk Edit
☒	refresh_token	<code>{{(refresh_token)}}</code>			
☒	client_id	<code>{{(client_id-partner)}}</code>			
	Key	Value	Description		

}

13. Libra – Flow

1. Authenticate

POST

⌵

{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/token

Send

⌵

Params

Authorization

Headers (7)

Body

Pre-request Script

Tests

Settings

Cookies

☐ none

☒ form-data

☐ x-www-form-urlencoded

☐ raw

☐ binary

☐ GraphQL

	Key	Value	Description	⋮	Bulk Edit
☒	client_id	{{(client_id-partner)}}			
	Key	Value	Description		

Response:

{

```

XpwIjoidGVzdGNsaWVudHYxIiwic2Vzc2lvdj9zdGF0ZSI6IjE5ZDFkN2NhLTUzMzktNDVhZmQyLWI0
MzEwZmZmMjVmZCIsInNjb3B1Ijoic2lhcjRhY2NvdW50c19jb25zZW50X2lkX2NsYWltOjExODM1MiJ9. _w
cB94x8cWuMgqNwPqjZ-2ECAZ7ITK--aFMpedQHfCc"
    }
}

```

2. initConsent

POST `{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}` Send

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies

Headers 8 hidden

Key	Value	Description	...	Bulk Edit	Presets
☒ Content-Type	application/json				
☒ PSU-IP-Address	192.12.110.32				
☒ PSU-ID-Type	ALL				
Key	Value	Description			

POST `{{API_BASE_URI}}/gateway/core/rest/api/initConsent/{{internalConsentId}}` Send

Params Authorization Headers (11) Body Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL JSON Beautify

```

1 {
2   "codeBank": "LI8",
3   "periodOfValid": 90,
4   "psuEmail": "aaaa@itsmaitsystems.eu",
5   "psuIntermediarId": "324567",
6   "redirectURL": "https://google.com",
7   "TAccepted": true
8 }

```

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "RECEIVED",
    "consentId": null,
    "_links": {
      "scaOAuth": {
        "href": "https://api.sandboxaccounts.smartfintech.eu/gateway/core/r
est/api/authorization?internalConsentId=118352&bankRedirectUri=https://is-
test.librabank.ro:9443/oauth2/authorize?state%3DeyJlbmMiOiJBMTI4Q0JDLUhTMjU2IiwiYWx
nIjoizGlyIiwic2Vzc2lvdj9zdGF0ZSI6IjE5ZDFkN2NhLTUzMzktNDVhZmQyLWI0MzEwZmZmMjVmZCIsInNjb3B1Ijoic2lhcjRhY2NvdW50c19jb25zZW50X2lkX2NsYWltOjExODM1MiJ9. _wcB94x8cWuMgqNwPqjZ-2ECAZ7ITK--aFMpedQHfCc"
      }
    }
  }
}

```



```

304zFAdeCeOFkEpwyMg9SrxXhWefIKBCfIfsPnMMAejg3hY7HRbE8ns2foYfCtPdYBztjARrGwwPTA0WRNB
6X2eqwRuBcYpwypMf3QZVfMWnCYPN5jkh78uu_HbvjTKKb9g8jbb2g95rw2FsRFnMEE5EPAKQhGC7xO2DdG
zw2iPNqlvg-
hBBU259GkQ7M2HyggzyD4_STg1Qnze9DzP47vpHZfHsP_4yqM_E9ySdEblN8ZLpwMxg03DA5nbciQBfaSHQ
jVayvn-p3znqmI6NHsgeFN7fR4P6R3tcocSIsgDG67Jpo6x2shVrg9CaIngOo46S49-
1TQZpzV2ED2rUY7uiSWpqfI5BiwdsjwVkbzntmZ3agsxICHSWOTHGHSg_rMZSJFTDxO4RcxzOsVjv-
nIrZsCLxarWTI2KZ0P1fDVG024.Dx29U4g0DWrl2dFWSmF0kQ%26response_type%3Dcode%26client_i
d%3Dn4IWqJHYT0dOqGuzckXyVyX7440a%26redirect_uri%3Dhttps://api.sandboxaccounts.smart
fintech.eu/gateway/core/rest/api/confirmation%26scope%3DAIS:5c9aef20-80b8-4053-
a2db-b22fd70393c6"
    }
  }
}
}

```

2.1 initCosentin SANDBOX – the example below shows how the developer will interact with bank's internet banking application

LIBRA INTERNET BANK

Conectare la Libra Internet Bank

BGE1659277000

.....

Renunta Login

LIBRA INTERNET BANK

Autentificare prin SMS

Vei primi codul de logare prin SMS la numarul 004072*****15

123 Retrimite codul

Renunta Valideaza



i Smartaccounts solicita acces la conturile tale.

Selectează conturile pentru care oferi acces:

☒ **Selectati toate**

☒ **RO20BREL**
Cont online business **978.43 RON**

Permisuni acces informatii cont:
IBAN Sold Tranzactii

☒ **RO51**
Cont Online Cont Online **1.000001E7 RON**

Permisuni acces informatii cont:
IBAN Sold Tranzactii

Renunta

Continua



i Ati oferit acces la:

RO20BREL
RON

Permisuni acces informatii cont:
☒ IBAN
 ☒ Sold
 ☒ Tranzactii

RO51BREL
RON

Permisuni acces informatii cont:
☒ IBAN
 ☒ Sold
 ☒ Tranzactii

Continua

After selecting accounts and pressing "Continua", thus authorising the consent for selected account, developer will be redirected to the established page.

2.2 initConsent in PROD – the example below shows how the PSU will interact with bank's internet banking application

LIBRA  **INTERNET BANK**

Conectare la Libra Internet Bank

LIBRA  **INTERNET BANK**

Smart Fintech solicita acces la conturile tale.

Selectează conturile pentru care oferi acces:

☐ **Selectati toate**

☐ RO
Cont Curent Persoane Fizice **42 RON**

Permisuni acces informatii cont:
IBAN Sold Tranzactii

LIBRA  **INTERNET BANK**

Ati oferit acces la:

RO3 100
RON

Permisuni acces informatii cont:
☒ IBAN ☒ Sold ☒ Tranzactii

LIBRAINTERNET BANK

86

Confirma autentificarea



Deschide aplicatia Libra Mobile Banking pentru a confirma autentificarea

Renunta

Vreau sa ma autentific cu sms

3. GET Consent

GET

{{API_BASE_URI}}/gateway/core/rest/api/consent/LIB/{{internalConsentId}}

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

Headers

6 hidden

Key	Value	Description	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.110.32				
☒ Content-Type	application/json				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "access": {
      "accounts": [
        {
          "iban": "RO00BREL0000000000000000",
          "currency": "RON"
        }
      ],
      "balances": [
        {
          "iban": "RO00BREL0000000000000000",

```

```

        "currency": "RON"
      }
    ],
    "transactions": [
      {
        "iban": "RO00BREL0000000000000000",
        "currency": "RON"
      }
    ],
    "availableAccounts": null
  },
  "consentStatus": "valid",
  "frequencyPerDay": 4,
  "lastActionDate": "2023-04-05",
  "validUntil": "2023-07-03",
  "recurringIndicator": true,
  "combinedServiceIndicator": false,
  "creationDate": null
}
}

```

4. GET ConsentStatus

GET		{(API_BASE_URI)}/gateway/core/rest/api/consent/LIB/{(internalConsentId)}/status			Send
Params	Authorization	Headers (7)	Body	Pre-request Script	Tests
Cookies					
Headers 6 hidden					
Key	Value	Description	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.110.32				
Key	Value	Description			

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "consentStatus": "VALID"
  }
}

```

5. GET Accounts

GET		{(API_BASE_URI)}/gateway/core/rest/api/accounts/LIB/{(internalConsentId)}			Send
Params	Authorization	Headers (7)	Body	Pre-request Script	Tests
Cookies					
Headers 6 hidden					
Key	Value	Description	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": [
    {
      "resourceId": "1000000000000",
      "iban": "RO00BREL0000000000000000",
      "currency": "RON",
      "name": "ABC S.R.L.",
      "product": "ABC S.R.L.",
      "cashAccountType": null,
      "status": null,
      "bic": null,
      "accountOfficerDescription": null,
      "openingDate": null,
      "customerSector": null,
      "customerType": null,
      "accountUsage": null,
      "workingBalance": null,
      "onlineActualBalance": null,
      "balances": [],
      "sortCodeAccountNumber": null
    }
  ]
}
```

6. GET Balances

Key	Value	Description	...	Bulk Edit	Presets
☒ PSU-IP-Address	192.12.123.32				
Key	Value	Description			

Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO00BREL0000000000000000"
    },
    "balances": [
      {
        "balanceAmount": {
          "currency": "RON",
          "amount": 978.43
        }
      }
    ]
  }
}
```

```

        "balanceType": "expected",
        "referenceDate": "2023-04-05",
        "creditLimitIncluded": null,
        "creditDebitIndicator": null,
        "lastChangeDateTime": "2023-04-05 09:59:12",
        "lastCommittedTransaction": null,
        "transactionStatus": null
    }
}
}

```

7. GET Transactions

GET	{{API_BASE_URI}}/gateway/core/rest/api/accounts/LIB/1000000000000/{{internalConsentId}}/transactions?dateFrom=2023-02-01&dateTo=2023-0...	Send
Params	Authorization	Headers (7)
Query Params		
Key	Value	Description
☒ dateFrom	2023-02-01	
☒ dateTo	2023-04-05	
Key	Value	Description

GET	{{API_BASE_URI}}/gateway/core/rest/api/accounts/LIB/1000000000000/{{internalConsentId}}/transactions?dateFrom=2023-02-01&dateTo=2023-0...	Send
Params	Authorization	Headers (7)
Headers		
Key	Value	Description
☒ PSU-IP-Address	192.12.123.32	
Key	Value	Description

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "account": {
      "iban": "RO00BREL0000000000000000"
    },
    "transactions": {
      "booked": [
        {
          "transactionId": "FT000000ZPVZ",
          "entryReference": null,
          "endToEndId": null,
          "bookingDate": "2023-01-27",
          "valueDate": "2023-01-27",
          "executionDateTime": null,
          "transactionAmount": {
            "currency": "RON",

```

```

        "amount": -4.0
      },
      "transactionType": null,
      "exchangeRate": [],
      "creditorName": null,
      "creditorAccount": {},
      "debtorName": null,
      "debtorAccount": {},
      "remittanceInformationUnstructured": "Speze transfer",
      "proprietaryBankTransactionCode": null,
      "merchantDetails": null,
      "additionalInformation": null,
      "smartRemittance": null,
      "transactionStatus": null,
      "creditDebitIndicator": null
    }
  ],
  "pending": [],
  "links": null
},
"balances": []
}
}

```

8. GET Accounts Details

GET		{[API_BASE_URI]}/gateway/core/rest/api/accounts/LIB/10000000000000/([internalConsentId])/details		Send
Params	Authorization	Headers (7)	Body	Pre-request Script
Tests				
Settings				
Cookies				
Headers < 6 hidden				
Key	Value	Description	...	Bulk Edit
☒ PSU-IP-Address	192.12.123.32			
Key	Value	Description		Presets

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "resourceId": "10000000000000",
    "iban": "RO00BREL000000000000000000",
    "currency": "RON",
    "name": "account alias 2",
    "product": null,
    "cashAccountType": null,
    "status": "enabled",
    "bic": null,
    "accountOfficerDescription": null,
    "openingDate": null,
    "customerSector": null,
    "customerType": null,
  }
}

```



```

        "accountUsage": null,
        "workingBalance": null,
        "onlineActualBalance": null,
        "balances": [],
        "sortCodeAccountNumber": null
    }
}

```

9. Delete Consent

DELETE		{{(API_BASE_URI)}}/gateway/core/rest/api/deleteConsent/LIB/{{(internalConsentId)}}		Send																		
Params	Authorization	Headers (7)	Body	Pre-request Script																		
Headers 6 hidden <table border="1"> <thead> <tr> <th>Key</th> <th>Value</th> <th>Description</th> <th></th> <th>Bulk Edit</th> <th>Presets</th> </tr> </thead> <tbody> <tr> <td>☒ PSU-IP-Address</td> <td>192.12.123.32</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Key</td> <td>Value</td> <td>Description</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Key	Value	Description		Bulk Edit	Presets	☒ PSU-IP-Address	192.12.123.32					Key	Value	Description			
Key	Value	Description		Bulk Edit	Presets																	
☒ PSU-IP-Address	192.12.123.32																					
Key	Value	Description																				

Response:

```

{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "message": "Consent has been successfully revoked"
  }
}

```

10. RefreshToken

POST		{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken		Send																								
Params	Authorization	Headers (9)	Body	Pre-request Script																								
Headers 7 hidden <table border="1"> <thead> <tr> <th>Key</th> <th>Value</th> <th>Description</th> <th></th> <th>Bulk Edit</th> <th>Presets</th> </tr> </thead> <tbody> <tr> <td>☒ internalConsentId</td> <td>{{(internalConsentId)}}</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>☒ access_token</td> <td>{{(access_token)}}</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Key</td> <td>Value</td> <td>Description</td> <td></td> <td></td> <td></td> </tr> </tbody> </table>					Key	Value	Description		Bulk Edit	Presets	☒ internalConsentId	{{(internalConsentId)}}					☒ access_token	{{(access_token)}}					Key	Value	Description			
Key	Value	Description		Bulk Edit	Presets																							
☒ internalConsentId	{{(internalConsentId)}}																											
☒ access_token	{{(access_token)}}																											
Key	Value	Description																										

POST		{{(MTLS_BASE_URI)}}/gateway/authenticate/rest/api/refreshToken		Send																				
Params	Authorization	Headers (9)	Body	Pre-request Script																				
Body ☐ none ☒ form-data ☐ x-www-form-urlencoded ☐ raw ☐ binary ☐ GraphQL <table border="1"> <thead> <tr> <th>Key</th> <th>Value</th> <th>Description</th> <th></th> <th>Bulk Edit</th> </tr> </thead> <tbody> <tr> <td>☒ refresh_token</td> <td>{{(refresh_token)}}</td> <td></td> <td></td> <td></td> </tr> <tr> <td>☒ client_id</td> <td>{{(client_id-partner)}}</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Key</td> <td>Value</td> <td>Description</td> <td></td> <td></td> </tr> </tbody> </table>					Key	Value	Description		Bulk Edit	☒ refresh_token	{{(refresh_token)}}				☒ client_id	{{(client_id-partner)}}				Key	Value	Description		
Key	Value	Description		Bulk Edit																				
☒ refresh_token	{{(refresh_token)}}																							
☒ client_id	{{(client_id-partner)}}																							
Key	Value	Description																						

Response:

```

{
  "status": 200,

```

[illegible]

In case the "accessToken" expires, the response will have the following structure:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "moreDetails": {
    "text": "Invalid access token"
  }
}
```

7. Generic APIs (available in all banks' flows)

For every bank there will be a GET "Banks" and a POST "CheckEmail" calls. These APIs can be called after the authentication of the TPP – (POST) "Authenticate".

1. Banks

The screenshot shows a REST client interface with the following details:

- URL:** `{{(API_BASE_URI)}}/gateway/core/rest/api/banks`
- Method:** GET
- Headers:** 6 hidden. One header is visible: `Content-Type: application/json`.
- Buttons:** Save, Send, and a dropdown menu.
- Tabs:** Params, Authorization, Headers (7), Body, Pre-request Script, Tests, Settings.
- Table:** A table with columns: KEY, VALUE, DESCRIPTION, Bulk Edit, and Presets. The first row shows `Content-Type` with value `application/json`.

Response:

```
{
  "id": 1,
  "code": "BT",
  "name": "Banca Transilvania",
  "logo": "...",
  "active": true,
  "bic": "BTRL",
  "requiredParameters": {
    "requiresPSUIDType": false,
    "requiresPSUID": false,
    "requiresIban": false
  }
},
{
  "id": 2,
  "code": "ING",
  "name": "ING Bank",
  "logo": "...",
  "active": true,
  "bic": "INGB",
  "requiredParameters": {
    "requiresPSUIDType": false,
    "requiresPSUID": false,
    "requiresIban": false
  }
},
{
  "id": 3,
  "code": "BRD",
  "name": "BRD Group Societe Generale",
```

```

    "logo": "...",
    "active": true,
    "bic": "BRDE",
    "requiredParameters": {
        "requiresPSUIDType": true,
        "requiresPSUID": true,
        "requiresIban": false
    }
},
{
    "id": 4,
    "code": "BCR",
    "name": "BCR Bank",
    "logo": "...",
    "active": true,
    "bic": "RNCB",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": false,
        "requiresIban": false
    }
},
{
    "id": 5,
    "code": "RZB",
    "name": "Raiffeisen Bank SA",
    "logo": "...",
    "active": true,
    "bic": "RZBR",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": true,
        "requiresIban": true
    }
},
{
    "id": 6,
    "code": "CEC",
    "name": "CEC Bank SA",
    "logo": "...",
    "active": true,
    "bic": "CECE",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": false,
        "requiresIban": false
    }
},
{
    "id": 7,
    "code": "FB",

```

```

    "name": "First Bank SA",
    "logo": "...",
    "active": true,
    "bic": "PIRB",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": false,
        "requiresIban": false
    }
},
{
    "id": 8,
    "code": "UNC",
    "name": "UniCredit Bank SA",
    "logo": "...",
    "active": true,
    "bic": "BACX",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": false,
        "requiresIban": false
    }
},
{
    "id": 9,
    "code": "ALPH",
    "name": "Alpha Bank",
    "logo": "...",
    "active": true,
    "bic": "BUCU",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": false,
        "requiresIban": false
    }
},
{
    "id": 10,
    "code": "LIB",
    "name": "Libra Bank",
    "logo": "...",
    "active": true,
    "bic": "BREL",
    "requiredParameters": {
        "requiresPSUIDType": false,
        "requiresPSUID": false,
        "requiresIban": false
    }
},
{
    "id": 11,

```

```

    "code": "REV",
    "name": "Revolut LTD",
    "logo": "...",
    "active": true,
    "bic": "REVO",
    "requiredParameters": {
      "requiresPSUIDType": false,
      "requiresPSUID": false,
      "requiresIban": false
    }
  },
  {
    "id": 12,
    "code": "OTP",
    "name": "OTP Bank",
    "logo": "...",
    "active": true,
    "bic": "...",
    "requiredParameters": {
      "requiresPSUIDType": false,
      "requiresPSUID": true,
      "requiresIban": true
    }
  },
  {
    "id": 13,
    "code": "GRT",
    "name": "Garanti Bank",
    "logo": "...",
    "active": true,
    "bic": "...",
    "requiredParameters": {
      "requiresPSUIDType": false,
      "requiresPSUID": false,
      "requiresIban": false
    }
  }
}

```

2. CheckEmail

SmartAccounts_BT_ING_BCR_BRD_RZB_CEC_FB_UNC_ALPHA_LIB_OTP_REV_GRT.v0.1 / 1. Intermediary API's BT / 3. CheckEmail

Save

POST

{{API_BASE_URI}}/gateway/core/rest/api/checkPsuEmail

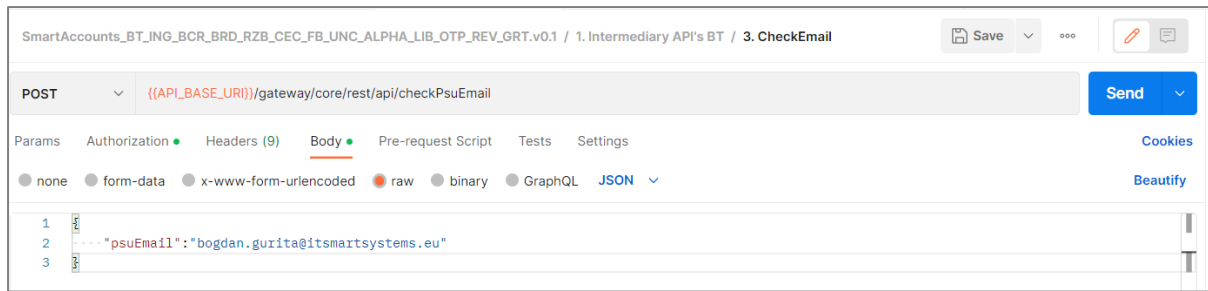
Send

Params
Authorization
Headers (9)
Body
Pre-request Script
Tests
Settings
Cookies

Headers

8 hidden

	KEY	VALUE	DESCRIPTION		Bulk Edit	Presets
☒	Content-Type	application/json				
	Key	Value	Description			



Response:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "existingAccount": true,
    "message": "Sunt de acord cu Termenii si Conditile Smart Fintech",
    "t&c": "https://www.smartfintech.eu/terms-and-conditions-for-smart-accounts"
  }
}
```

The "false" response should have the following structure:

```
{
  "status": 200,
  "messageStatus": "Success",
  "payload": {
    "existingAccount": false,
    "message": "Sunt de acord cu Termenii si Conditile Smart Fintech si cu crearea unui cont utilizand adresa de email bogdan.gurita@itsmartsystems.eu",
    "t&c": "https://www.smartfintech.eu/terms-and-conditions-for-smart-accounts"
  }
}
```

8. Error mapping & handling linked to a consent's status

Each bank raises a different error and with different error messages (or even responds with success) on every API when a consent is not valid.

When a consent expired, was overwritten, or deleted from bank's app (where applicable):

Error group #1: GetConsent and GetConsentStatus will all respond as following:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "source": "Bank",
  "moreDetails": {
    "text": "UNAUTHORIZED" OR "EXPIRED" OR "TERMINATEDBYTPP" OR "REVOKEDBYPSU"
  }
}
```

Error group #2: GetAccounts, GetBalances, GetTransactions, GetAccountDetails and GetTransactionDetails, DeleteConsent will all respond as following:

```
{
  "status": 401,
  "messageStatus": "Unauthorized",
  "source": "Bank",
  "moreDetails": {
    "text": "UNAUTHORIZED" OR "EXPIRED"
  }
}
```

When you receive errors mentioned for APIs in **Error group #2** (moreDetails.text: "UNAUTHORIZED" / "EXPIRED" / "TERMINATEDBYTPP" / "REVOKEDBYPSU") coupled with errors mentioned for APIs in **Error group #1** (moreDetails.text: "UNAUTHORIZED" / "EXPIRED"), then this means that a new consent must be initiated because the previous consent is not valid anymore.