Unified™ Finance

API.
User's Guide.
Version 1.0.3

Unified™ Finance

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1. Document release notes

VERSION	DATE	EDITOR	COMMENTS
1.0.0	26.10.2020	Anton Jarmolovic	Initial release
1.0.1	07.12.2020	Anton Jarmolovic	Webhooks URL information added
1.0.2	14.01.2021	Anton Jarmolovic	Account balance resource implemented
1.0.3	09.03.2021	Anton Jarmolovic	Message elements validation information added

2. General provisions

The present document provides the specification of implementation API for FIAX.

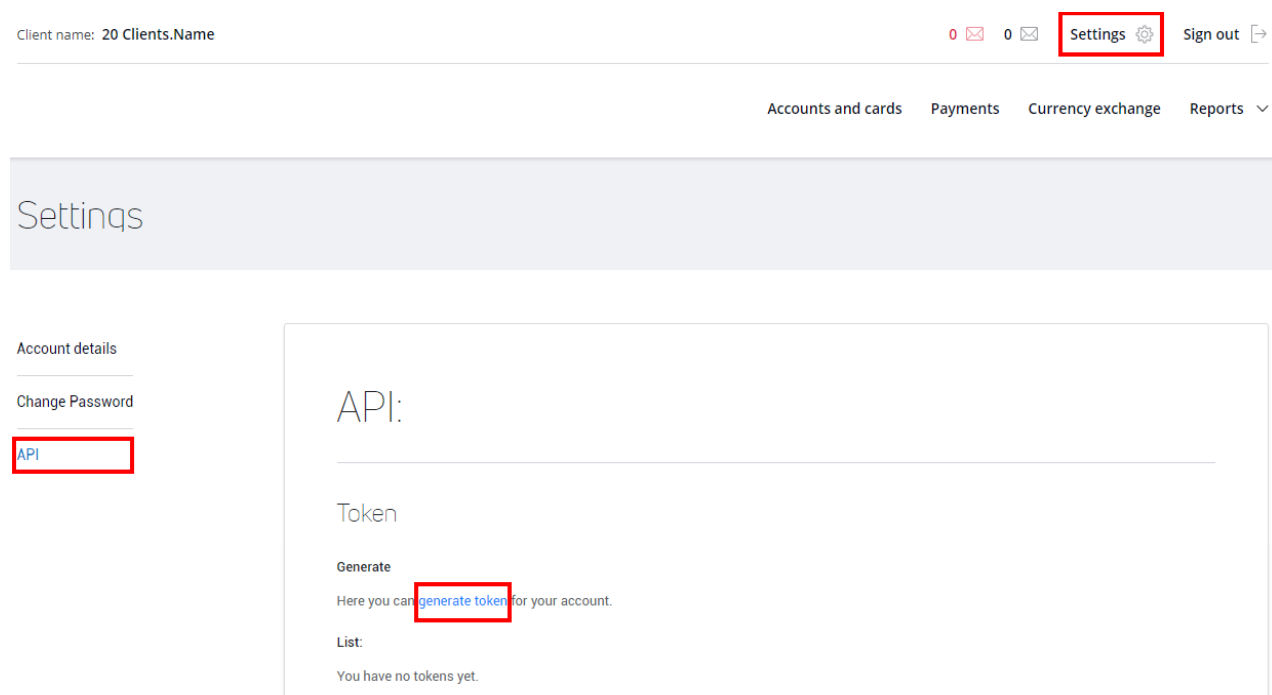In order to obtain access to API you must:
1. Register PLUS account in the FIAX system.
2. Complete full account verification procedure.
3. Grant access to your account using authorization API Token and Secret Key.
4. Copy and save the API Token and Secret Key in a safe place.
5. Encrypt each API request using the Token and Secret Key as described below.

INFO: API can be implemented for PLUS account type only.

3. Security

3.1 Token and Secret Key

Open your FIAX account and go to **Settings > API > Generate Token**

INFO: Only one pair of Token and Secret Key per account number is allowed.

Specify account and the dates range on which access Token and Secret Key expires than press **Create token**

To complete action use a Sign **token**.

Before signing, save Token and Secret Key values on your side in a safe place. You can use **Copy token** and **Copy secret key** functions to copy values to the clipboard buffer.

3.2 Webhooks URL

A webhook is a user-defined callback over HTTP. You can use webhooks to notify your app or web application when certain events occur. You might want to alert your remote application when an **SEPA payment status is updated**. Using a webhook to do this means that your remote application doesn't have to periodically poll FIAX (via the REST APIs) to determine whether changes have occurred.

> WARNING: Token and Secret Key information is not stored on the FIAX side
> and you will not be able to re-display it.

Client Security

☑ Use the code sent to your device to authorize the action

Client info

Access to account	GB98UNNI00995538091997

Token info

Valid from	04.12.2020	
Valid to	04.12.2021	
Webhooks URL	https://webhook.site/5d94fdca-b5e7-4254-952b-7f7ba1c52a1d	
Token	Cv3j733VF5F8BgA7f2rZgVXcSJCWx3swwNMXvFYEbmAaAzfZSEezE4TFhhXS2VV2	Copy token
SecretKeyValue	A2UJsdSDTPMEuuBhWD8ZZB2rD485WDZBJupyREv9fJthVCPg3kVEWDkSHg2X86H5	Copy secret key

⚠ Save generated Token and Secret Key on your side. It is not stored on the our side and you will not be able to re-display it.

Authorization

SMS code has been sent to telephone number **+3763*******32**. Enter this code to execute operation.

SMS code		Please wait for 52 seconds to re-send the code.

Sign token

3.3 Whitelist of IP addresses

The access to the API is only available from the whitelisted IP addresses. Please provide FIAX technical support information about whitelisted IP addresses.

4. Accessing

URL for accessing the FIAX API

https://api.fiax.com/v1

URL for accessing the FIAX sandbox API. Please contact FIAX technical support to receive Token and Secret Key values for sandbox environment

https://api.sandbox.fiax.com/v1

5. Basic Scope services

5.1 Request headers

The following table contains the defined set of request header parameters common to most of the requests in this specification

PARAMETER	FORMAT TYPE	DESCRIPTION
Signature	Max32Text	Request's signature. Generate signature using **md5** function and concatenation of **Request data-raw** and **Secret Key** as parameter
Authorization	Max64Text	Bearer **Token**
Content-Type	Text	Defines MIME media type of the resource. **application/json**

Example of signature generation (PHP):
md5('{
*   "timestamp": "1604063801"*
} ' . 'p8NUmNSSZaTNdgK86Y94tEH3wzumvWnSKvGGR5DvYAN7hyCF2PyZsTYPsh7VPjfK'

5.2 Resources

5.2.1 Ping

Resource for checking connection and credentials

POST	/ping

MESSAGE ELEMENTS Ping

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
timestamp	UnixTimestamp	Seconds passed after Jan 01 1970 (UTC) For more information about UnixTimestamp type please visit https://www.unixtimestamp.com/

Example of request:

```
curl --location --request POST 'https://api.sandbox.fiax.com/v1/ping' \
--header 'Signature: e3B7db791f13a846bb6eceaab83fc945' \
--header 'Authorization: Bearer ABkSVdZHmrYW2b3Az8dWXtt3SEgfhj3DEtVt97hSg6eAJ8Wu2xWU4fjn5A94CRZS' \
--header 'Content-Type: application/json' \
--data-raw '{
    "timestamp": "1604063801"
}'
```

MESSAGE ELEMENTS Response for Ping

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
requestGUID	Text	Request unique identifier
requestStatus	Text	Request status information
requestDate	Timestamp	Timestamp

Example of correct response:

```
{
    "code": 200,
    "name": "",
    "message": "",
    "result": "{
        "requestGUID": "BhxjtxJXYM4u2ZTx9N6C2eAxjXXvK64tGN38kGUdSPP42MFcCv",
        "requestStatus": "Connection is successful",
        "requestDate": "2020-10-30 13:17:13"
    }"
}
```

5.2.2 New SEPA payment initiation

Resource for entering a new SEPA payment

POST	/sepa/create

MESSAGE ELEMENTS New SEPA payment initiation

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
timestamp	UnixTimestamp	Seconds passed after Jan 01 1970 (UTC)
accountFromCurrency	Len3Text %[^A-Z]%	Payer's account currency. Currency code ISO 4217.
transferAmount	Number	Amount. Use a dot as decimal separator. 2 digits can be entered after a dot.
noteForSender	Max120Text %[^A-Z0-9'',\.:;\(\)\/ -]%	Notes for sender
bankSWIFT	Max11Text %[^A-Z0-9]%	BIC / SWIFT bank code

accountNumber	BAN2007Identifier *%[^A-Z0-9]%*	Account number in IBAN format
beneficiaryName	Max80Text *%[^A-Z0-9\ \.\-]%*	Recipient name
beneficiaryCountryCode	Len2Text *%[^A-Z]%*	Country codes of the recipient https://www.iban.com/country-codes
beneficiaryCity	Max35Text *%[^A-Z0-9'',\..;\(\)\/ -]%*	Recipient address city
beneficiaryStreet	Max70Text *%[^A-Z0-9'',\..;\(\)\/ -]%*	Recipient address street
beneficiaryHouse	Max16Text *%[^A-Z0-9'',\..;\(\)\/ -]%*	Recipient address house
beneficiaryIndex	Max16Text *%[^A-Z0-9'',\..;\(\)\/ -]%*	Recipient address index
paymentDetails	Max120Text *%[^A-Z0-9'',\..;\(\)\/ -]%*	Payment notes

Example of request:

```
curl POST 'https://api.fiax.com/v1/sepa/create' \
--header 'Content-Type: application/json' \
--header 'Signature: 575a5a2168488eeec52M8eda84e7e3fb' \
--header 'Authorization: Bearer
5zMjcVB8rMYXzGCXXMG7HsNPW9Tm8fdjNAv3YnUnkSJHwkZFMmxD32CyPwfnwMX8' \
--data-raw '{
    "timestamp": "1603909009",
    "accountFromCurrency" : "EUR",
    "transferAmount" : 100.00,
    "noteForSender" : "Notes for sender",
    "bankSWIFT" : "BUNQNL2AXXX",
    "accountNumber" : "CZ65BUNQ2036411754",
    "beneficiaryName" : "Jan Kubelik",
    "beneficiaryCountryCode" : "CZ",
    "beneficiaryCity" : "Prague",
    "beneficiaryStreet" : "Potockova",
    "beneficiaryHouse" : "1d",
    "beneficiaryIndex" : "25267",
    "paymentDetails" : "Payment details information"
}'
```

MESSAGE ELEMENTS Response for new SEPA payment initiation

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
requestGUID	Text	Request unique identifier
transactionGUID	Len32Text	Transaction unique identifier
paymentStatus	Text	Payment status
paymentDate	Timestamp	Timestamp
paymentAccount	BAN2007Identifier	Account number in IBAN format

paymentCurrency	Max3Text	Account currency code ISO 4217
paymentAmount	Number	Amount
paymentFee	Number	Fee

Example of correct response:
```
{
    "code": 200,
    "name": "",
    "message": "",
    "result": "{
        "requestGUID" : "BXtZwhW8ght7N866DJy6w6B6C26RDXWa3M4bcEVE3TYjPkBwWz",
        "transactionGUID" : "FBV2adf2VrJ9GZ5Zys8cdjpzzMeVTE39",
        "paymentStatus" : "submitted",
        "paymentDate" : "2020-10-30 13:17:13",
        "paymentAccount" : "NL65BUNQ2036411754",
        "paymentCurrency" : "EUR",
        "paymentAmount" : 101.00,
        "paymentFee" : 1.00
    }"
}
```

ERROR CODES for New SEPA payment initiation

STATUS CODE	ERROR	MESSAGE
403	FORBIDDEN	Access to the requested resource is not granted or is not possible for that user. Check token or secret key
400	BAD_REQUEST	Invalid JSON format or other technical problem with the query processing
404	NOT_FOUND	[transactionGUID] transaction does not exist
400	FIELD_INVALID	[transactionGUID] value must be 32 symbols
400	FIELD_INVALID	[transactionGUID] value is not valid
400	FIELD_MISSING	[fieldName] missing mandatory field
400	FIELD_INVALID	[accountFromCurrency] the specified payer account currency does not correspond to the clients account currency for the account number held in the bank
400	FIELD_INVALID	[transferAmount] wrong amount. For instance, too low or high amount or wrong number format according to the number of decimal places according to the ISO 4217
400	FIELD_INVALID	[accountFromCurrency] currency is not supported

5.2.3 Status of initiated SEPA payment

Resource to display SEPA payment status

GET	/sepa/status

MESSAGE ELEMENTS Status of initiated SEPA payment

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
timestamp	UnixTimestamp	Seconds passed after Jan 01 1970 (UTC)
transactionGUID	Len32Text	Transaction unique identifier

Example of request:

*CURL --location --request GET 'https://api.fiax.com/v1/sepa/status' *
*--header 'Content-Type: application/json' *
*--header 'Signature: 542b23435cf43055a4eDd808b700ef70' *
--header 'Authorization: Bearer
*5zMjcVB8rMYXzgCXXMG7HsNPW9Tm8fdjNAv3YnDnkSJHwkZFMmxP32CyPwfnwMX6' *
--data-raw '{
*   "timestamp": "1603909540",*
*   "transactionGUID": "FaV2adf2VrJ9GZ5Zys8cdjpzzMeVTE39"*
}'

MESSAGE ELEMENTS Response for Status of initiated SEPA payment

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
requestGUID	Text	Request unique identifier
transactionGUID	Len32Text	Transaction unique identifier
paymentStatus	Text	Payment status
paymentDate	Timestamp	Timestamp
paymentAccount	BAN2007Identifier	Account number in IBAN format
paymentCurrency	Max3Text	Account currency code ISO 4217
paymentAmount	Float	Amount
paymentFee	Float	Fee

Example of correct response:
{
*   "code": 200,*
*   "name": "",*
*   "message": "",*
*   "result": "{*

        "requestGUID" : "BXtJwhW8ght7N866DJy6w6B6D26RDXWa3M4bcEVE3TYjPkBwWz",
        "transactionGUID" : "FaV2adf2VrJ9GZ5Zys8cdCpzzMeVTE39",
        "paymentStatus" : "submitted",
        "paymentDate" : "2020-10-30 13:17:13",
        "paymentAccount" : "NL65BUNQ2036411754",
        "paymentCurrency" : "EUR",
        "paymentAmount" : 101.00,
        "paymentFee" : 1.00
    }"
}

SEPA payment statuses:

STATUS CODE	DESCRIPTION
Submitted	Authentication and syntactical and semantical validation are successful.
Rejected	Payment initiation has been rejected.
Pending	Wating for KYC check and approval.
Processed	All preceding checks such as technical validation and customer profile were successful and therefore the payment initiation has been accepted for execution.
Returned	Diverted from normal execution after interbank settlement.

ERROR CODES for Status of initiated SEPA payment

STATUS CODE	ERROR	MESSAGE
404	NOT_FOUND	[transactionGUID] transaction does not exist
400	FIELD_INVALID	[transactionGUID] value must be 32 symbols

5.2.4 Account balance

Resource to display balance of the specific client account according to the account number

GET	/account/balance

MESSAGE ELEMENTS of Account balance request

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
timestamp	UnixTimestamp	Seconds passed after Jan 01 1970 (UTC)
accountNumber	BAN2007Identifier %[^A-Z0-9]%	Account number in IBAN format
accountCurrency	Max3Text %[^A-Z]%	Account currency code ISO 4217

Example of request:

```
CURL --location --request GET  'https://api.fiax.com/v1/account/balance' \
--header 'Content-Type: application/json' \
--header 'Signature: 542b23435cf43055a4eDd808b700ef70' \
--header 'Authorization: Bearer
5zMjcVB8rMYXzgCXXMG7HsNPW9Tm8fdjNAv3YnDnkSJHwkZFMmxP32CyPwfnwMX6' \
--data-raw '{
   "timestamp": "1603909540",
   "accountNumber": "GB29UNNI00995538244268",
   "accountCurrency": "EUR"
}'
```

MESSAGE ELEMENTS Response for Account balance

MESSAGE ELEMENT	FORMAT TYPE	DESCRIPTION
requestGUID	Text	Request unique identifier
accountNumber	BAN2007Identifier	Account number in IBAN format
accountCurrency	Max3Text	Account currency code ISO 4217
amoutValue	Float	Amount

Example of correct response:

```
{
   "code": 200,
   "name": "",
   "message": "",
   "result": "{
      "requestGUID" : "BXtJwhW8ght7N866DJy6w6B6D26RDXWa3M4bcEVE3TYjPkBwWz",
      "accountNumber" : " GB29UNNI00995538244268",
      "accountCurrency" : "EUR",
      "amountValue" : 100.00
   }"
}
```

ERROR CODES for initiated Account Balance

STATUS CODE	ERROR	MESSAGE
400	FIELD_MISSING	Missing mandatory field [accountNumber] in the request
400	FIELD_MISSING	[accountNumber] value must be no more than 50 symbols
400	FIELD_MISSING	[accountNumber] is not valid
400	FIELD_MISSING	[accountCurrency] value must be 3 symbols
400	FIELD_MISSING	[accountCurrency] is not valid

6. Message elements validation

MESSAGE ELEMENTS Validation Rules

MESSAGE ELEMENT	REGEXP	DESCRIPTION
accountNumber	%[^A-Z0-9]%	BAN2007Identifier. Latin symbols and numbers
currency	%[^A-Z]%	Max3Text. Latin symbols
bankSWIFT	%[^A-Z0-9]%	Max11Text. Latin symbols and numbers
noteForSender	%[^A-Z0-9'',\.:;\(\)\/ -]%	Max120Text. Latin symbols and numbers plus some spec symbols
beneficiaryName	%[^A-Z0-9\ \.\-]%	Max80Text. Latin symbols and numbers plus some spec symbols
beneficiaryCountryCode	%[^A-Z]%	Len2Text. Latin symbols
beneficiaryCity	%[^A-Z0-9'',\.:;\(\)\/ -]%	Max35Text. Latin symbols and numbers plus some spec symbols
beneficiaryStreet	%[^A-Z0-9'',\.:;\(\)\/ -]%	Max70Text. Latin symbols and numbers plus some spec symbols
beneficiaryHouse	%[^A-Z0-9'',\.:;\(\)\/ -]%	Max16Text. Latin symbols and numbers plus some spec symbols
beneficiaryIndex	%[^A-Z0-9'',\.:;\(\)\/ -]%	Max16Text. Latin symbols and numbers plus some spec symbols
paymentDetails	%[^A-Z0-9'',\.:;\(\)\/ -]%	Max120Text. Latin symbols and numbers plus some spec symbols

7. Contact us

API@UNIFIEDFINANCE.COM

> INFO: When reporting issue to a technical support, please provide the **request GUID**