



# Finpass

Enabling Trust

**Finpass PSD2 services integration**

Technical description

2018

# Finpass PSD2 services

## API INFORMATION

Title:	Finpass PSD2 service
Version:	V1
Protocols:	HTTPS
URI Token	<a href="https://psd2-api.finpass.eu/oauth/token">https://psd2-api.finpass.eu/oauth/token</a>
URI GetBanks	<a href="https://psd2-api.finpass.eu/api/getbanks">https://psd2-api.finpass.eu/api/getbanks</a>
URI StartRequest	<a href="https://psd2-api.finpass.eu/api/startrequest">https://psd2-api.finpass.eu/api/startrequest</a>
URI GetStatus	<a href="https://psd2-api.finpass.eu/api/getstatus">https://psd2-api.finpass.eu/api/getstatus</a>
URI GetResponse	<a href="https://psd2-api.finpass.eu/api/getresponse">https://psd2-api.finpass.eu/api/getresponse</a>

## WEB ENDPOINTS

Title:	Finpass endpoint url address
Version:	V1
Protocols:	HTTPS
Back-office:	<a href="https://psd2-bo.finpass.eu/">https://psd2-bo.finpass.eu/</a>
API :	<a href="https://psd2-api.finpass.eu/">https://psd2-api.finpass.eu/</a>
WEB, demo bank page:	<a href="https://psd2-web.finpass.eu/">https://psd2-web.finpass.eu/</a>

# DESCRIPTION

The Finpass API provides third party applications with information belonging to the third party customers bank accounts.

Such information contains data about:

Customer data:

- Customer type (Individual or Company)
- Customer name
- Customer code (national identity number or company code)
- Customer address
- Customer phone

Account data:

- Account Id
- Iban
- Currency
- Owner type (Private or Organization)
- Owner code
- Owner name

Statement data:

- From date
- To date
- Number of credit entries
- Number of debit entries
- Sum of credit entries
- Sum of debit entries
- Opening available
- Closing available

Transaction data:

- Booking date

- Value date
- Credit debit indicator (CRDT or DBIT (types taken from SEPA ISO20022 data structure))
- Amount
- Related party code
- Related party name
- Related party account
- Transaction details
- Scorify category (from our partners transaction classification service)

Data summary:

- Period summary – total last month, total last year, average per month
- Monthly summary – income, expenses, balance
- Income summary – category, amount, percent
- Expense summary – category, amount, percent

Service quick guide for basic usage:

1. Client authorizes its app with Finpass service and gets access token in response
2. Client starts new request and a unique message id with *redirectUrl* is returned
3. Client redirects his customer to the *redirectUrl*
4. Customer logs in to bank, gives permission to Finpass to access their data and is returned to the client
5. Finpass services gets customers account data from bank
6. Client gets the customers data from Finpass API

This API is available in the following environments:

- Sandbox (test)
- Live (production)

# VERSION HISTORY

Below is the version history for this API:

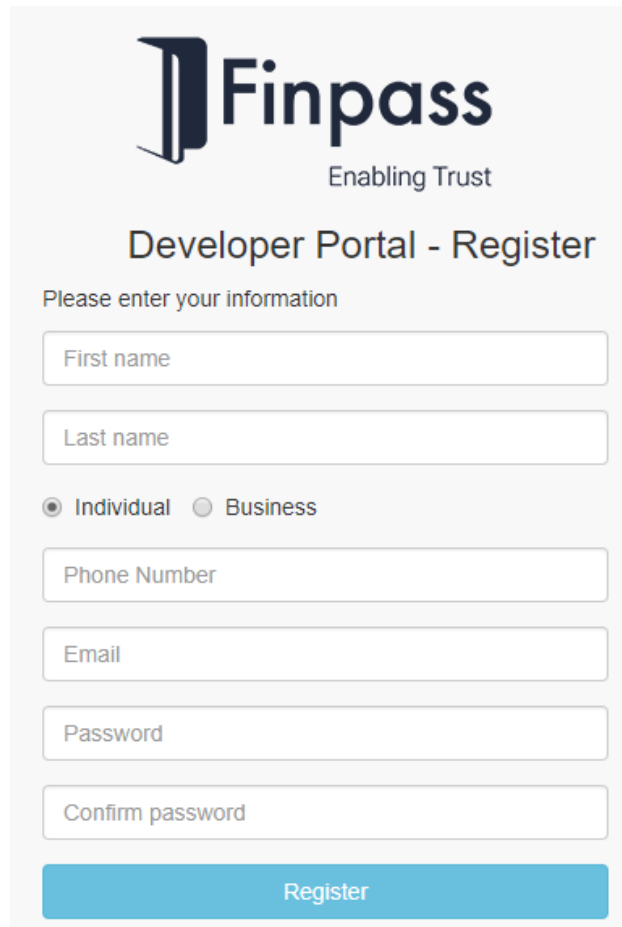
---

Version	Release date	Link to documentation	Reference
v1-alpha	2018-06-01	(this page)	Documentation is ready
v1	2018-06-19	(this page)	Removed to API methods: <code>getPersonDataSummary</code> , <code>getCompanyDataSummary</code> . Added an additional option in BO website: <code>include data summary</code> in <code>finpass</code> response. <code>Access_token</code> expiration time changed from 1 hour to 12 hours. <b>Changed finpass Response structure – balance lines and additional data summary fields. Added Scorify categories page. Added Data Summary page.</b>
v1	2018-06-25	(this page)	Added more sandbox accounts: Swedbank baltic countries, Swedbank Sweden, SEB only with developer account, Nordea
v1	2018-07-17	(this page)	Added documentation of Finpass BO – Developer portal

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# FINPASS BACK-OFFICE (BO) – Developer Portal

In order to start using Finpass API services, client needs to register at Finpass BO site <https://psd2-bo.finpass.eu>. After registering Finpass admins will confirm or decline client's registration request. Then client needs to wait for verification email.



The image shows a registration form for the Finpass Developer Portal. At the top is the Finpass logo with the tagline "Enabling Trust". Below the logo is the heading "Developer Portal - Register". The form prompts the user to "Please enter your information" and includes several input fields: "First name", "Last name", a radio button selection for "Individual" (selected) and "Business", "Phone Number", "Email", "Password", and "Confirm password". A blue "Register" button is at the bottom of the form.

[Figure 1. BO page for client registration]

Back office allows client to create apps for accessing the Finpass API.

Also client is able to:

- assign host ip address -es. (from where authorization API will be called);
- assing redirect url address;
- choose to include Scorify categories in Finpass report or not;
- choose to include DataSummary or not;

- choose customer callback action:
  - redirect back to client (redirect url is needed);
  - show thank you page;
  - show Finpass report page (currently in preparation);
- get app id and secret password to be able to authenticate;
- view app statistics;
- choose to which banks customer should be able to log in and give consent;
- Manage app's environment – sandbox / live;
- Report an issue;

Client needs to create an app to manage the access to Finpass APIs. This is done by accessing „My apps“ tab in sidebar of the page.

## Your app manager dashboard

**The apps allow you to manage the access to Finpass APIs**

[Need help? check out our guides](#)

[Create app](#)

[Figure 2. BO page for creating an app]

Fill in new app's general information.

### General information

<input type="text" value="App Name *"/>	70 characters max Name that your users will see if your app uses Finpass Connect
<input type="text" value="Type *"/>	SANDBOX: Testing environment LIVE: Live environment
<input type="text" value="app.finpass."/> <input style="margin-left: 10px;" type="text" value="App ID *"/>	23 characters max starting with a letter
<input type="text" value="Description"/>	255 characters max Brief description useful for you

[Next](#)

[Figure 3. BO page for entering new app's general information]

Then select required banks.

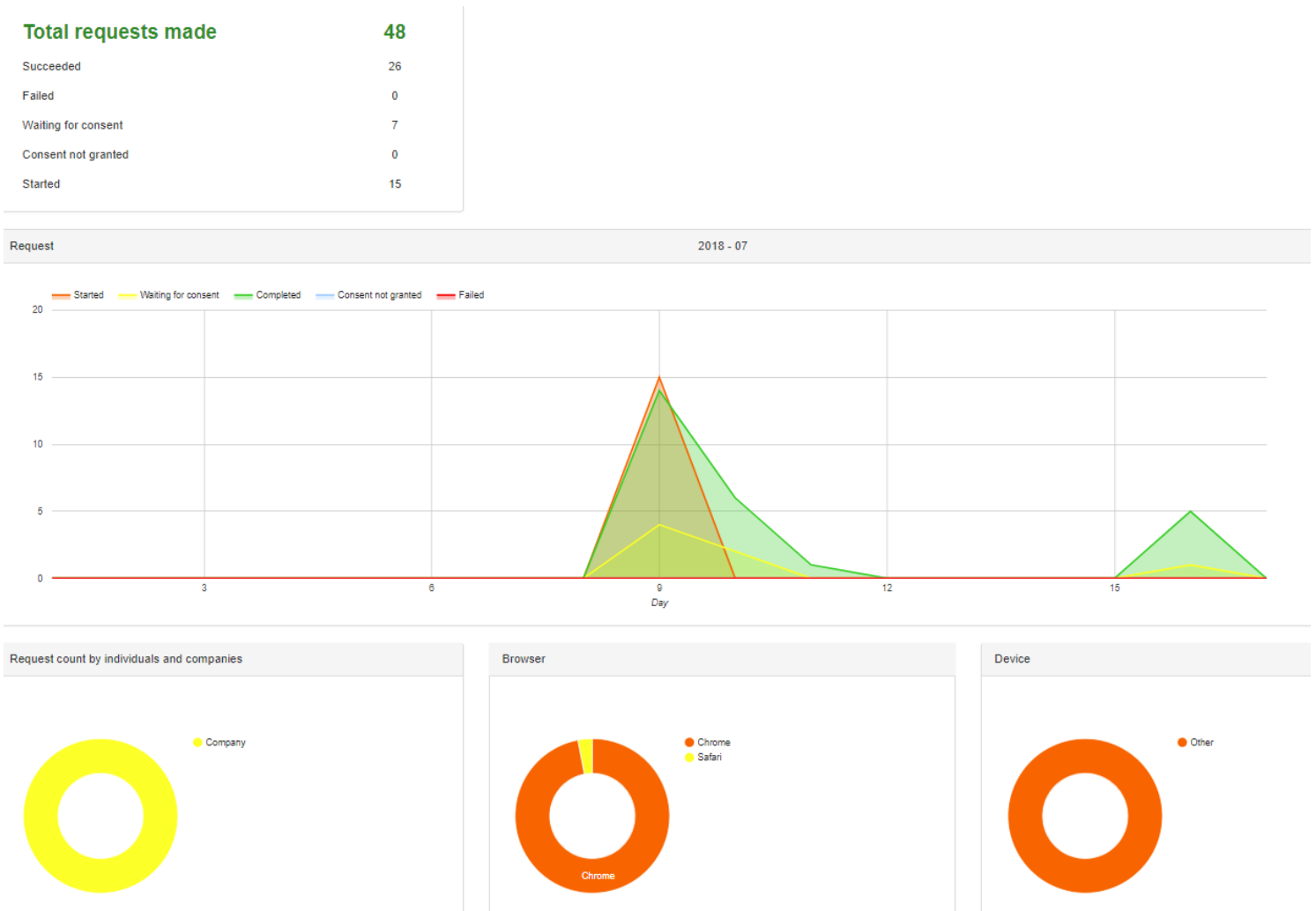
[Figure 4. BO page for selecting new app's required banks]

And then finish by entering additional information.

[Figure 5. BO page for entering new app's additional information]



Client can view various app statistics in „Dashboard“ page on the sidebar.



[Figure 6. BO dashboard of app's statistics]

# SCORIFY CATEGORIES

Finpass response can include additional fields depending on your APP's settings in BO. One of those fields are – scorify categories, located in transaction rows.

## Scorify categories – blue color

Finpass Response with default fields – brown color

```
"transactions": [{
  "bookingDate": "2017-07-01T03:00:00+03:00",
  "valueDate": "2017-07-01T03:00:00+03:00",
  "creditDebitIndicator": "DBIT",
  "amount": -300.00,
  "details": "GUARDERIA LAS PALMERAS",
  "category": {
    "id": 65,
    "title": "Children",
    "hierarchy": [{
      "id": 69,
      "title": "School and baby-sitting"
    }]
  }
}]
```

Categories can have hierarchies. All possible categories are defined in this file:



categories\_descripti  
on\_20180613.xlsx

# DATA SUMMARY

Finpass response can include additional fields depending on your APP's settings in BO. One of those fields are – data summary, located in the bottom of the response file.

Data summary – green color

```
"dataSummary": {
  "currency": "EUR",
  "fromDate": "2016-06-01T00:00:00",
  "toDate": "2018-06-01T00:00:00",
  "periodSummary": {
    "totalLastMonth": {
      "income": 0.0,
      "expense": 0.0,
      "balance": 0.0
    },
    "totalLastYear": {
      "income": 0.0,
      "expense": -6855.38,
      "balance": -6855.38
    },
    "averagePerMonth": {
      "income": 0.0,
      "expense": -979.34,
      "balance": -979.34
    }
  },
  "monthlySummary": [{
    "yearMonth": "2017-06",
    "income": 0.0,
    "expense": -6555.38,
    "balance": -6555.38
  },
  {
    "yearMonth": "2017-07",
    "income": 0.0,
    "expense": -300.00,
    "balance": -300.00
  }
],
  "incomeSummary": [{
    "categoryId": 85,
    "categoryTitle": "Salary",
    "amount": -1000.00,
    "percent": 100.0
  }
]
```

```

    }},
    "expenseSummary": [{
      "categoryId": 59,
      "categoryTitle": "Education, health and beauty",
      "amount": -1716.00,
      "percent": 25.0
    },
    {
      "categoryId": 65,
      "categoryTitle": "Children",
      "amount": -626.50,
      "percent": 9.1
    },
    {
      "categoryId": 42,
      "categoryTitle": "Transportation",
      "amount": -3562.88,
      "percent": 52.0
    },
    {
      "categoryId": 51,
      "categoryTitle": "Leisure activities, traveling",
      "amount": -950.00,
      "percent": 13.9
    }
  ]
},

```

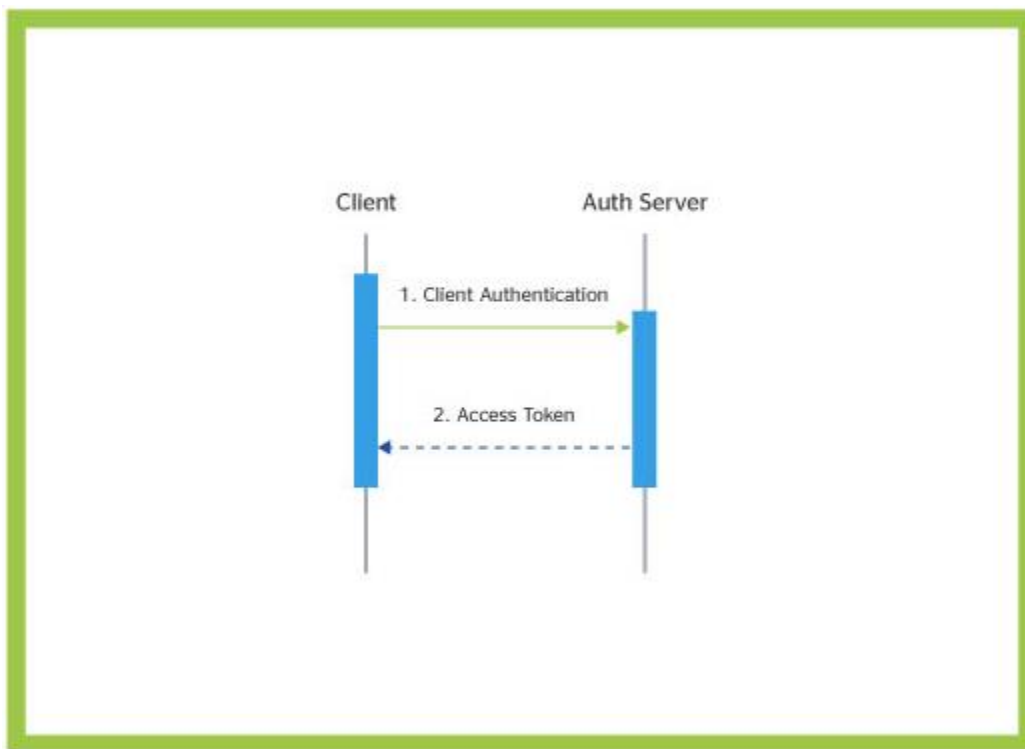
Data summary fields are calculated from 1 year transaction data. Date range is between :  
 (max(statements.dateTo year, month, 1st day)) – 1 year to (max(statements.dateTo year month, 1st  
 day)).

# AUTHENTICATION

This API is protected by 2-legged Open Authentication (OAuth) protocol. After the OAuth handshake, a valid OAuth token is granted for accessing the different API endpoints on behalf of a Finpass user.

## Two-legged authorization

To call an API with two-leg authentication, first we must obtain an *accessToken* and then use this *accessToken* to call the API.



[Figure 7. Two-legged authentication client to server diagram]

Remember that you should have an application created in Finpass BO environment.

# AUTHENTICATION QUICK GUIDE

## Get accessToken

Once in Postman we must configure the call parameters:

URL: <https://psd2-api.finpass.eu/oauth/token>

Method: POST

Headers:

- Authorization: Basic *CREDENTIALS*
- Content-Type: application/json

How to get *CREDENTIALS*:

Transform to base64 ( <https://www.base64encode.org/> ) the concatenation of appID, ":" and OAuth Secret, *appID:OAuth Secret*.

You can obtain appID and OAuth Secret from the details of your application.

### Example:

- appID = app.finpass.mydemoapp

- OAuth Secret = R\*\$.....6f1x@3

If we transform the string app.finpass.mydemoapp:R\*\$.....6f1x@3 to base64, the result is:

YXBw.....CVqNmYxeEAz

So header parameters are the following

- Authorization ; Basic YXBw.....CVqNmYxeEAz
- Content-Type ; application/json

This call returns a json like this one

```
{
  "accessToken": "1490A2D2515036274215E3291E3159987F6030FB776D20651598FE3A3D2A99DA",
  "tokenType": "Bearer",
  "expiresIn": 34869,
  "scope": "StartRequest GetStatus GetResponse GetBanks"
}
```

[Figure 8. GetToken API response body json example]

The *accessToken* returned by the service will be used to call the API.

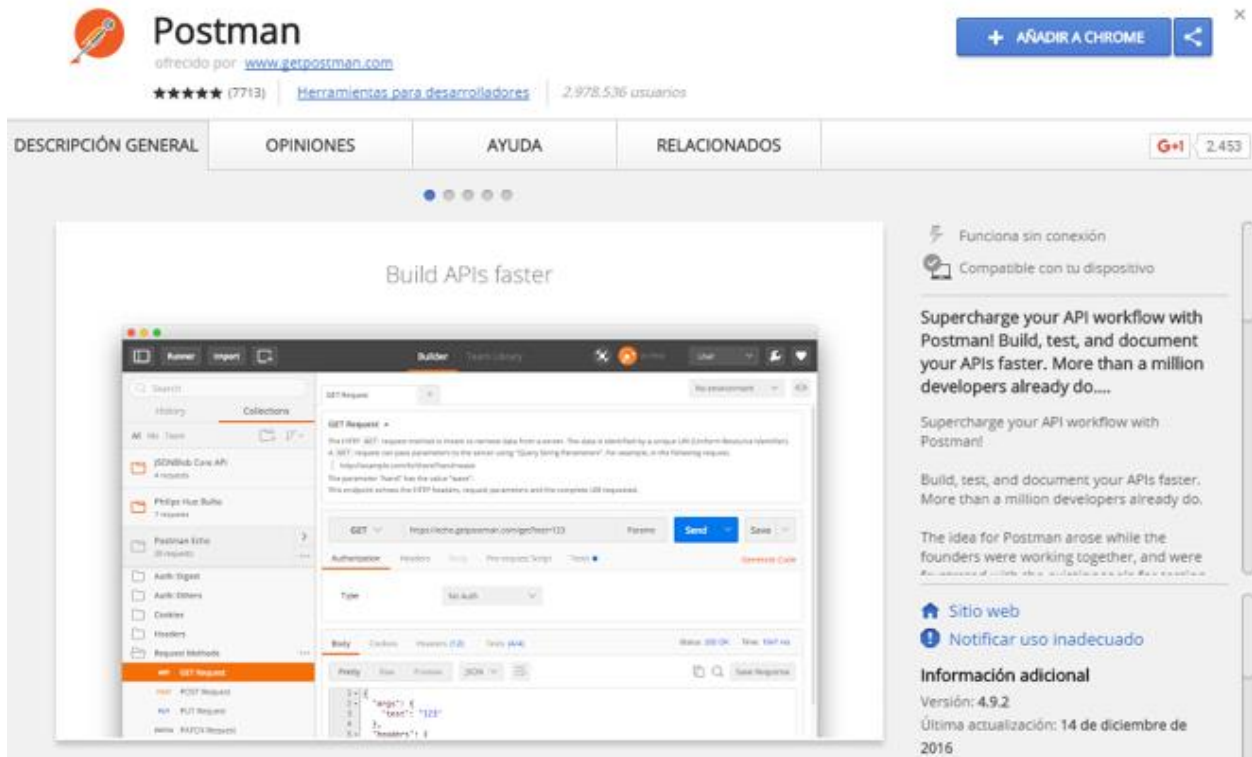
Important information:

Access tokens are valid for *12 hours*.



# API CALLS

In order to test the functionality of our APIs, there is a free tool called *Postman*.



[Figure 9. Postman program chrome plugin]

You can get our preset API CALL list for Postman [here](#).

API calls are made using previously obtained *accessToken*.

For example, we call to getBanks API from Finpass Services:

URL ; <https://psd2-api.finpass.eu/api/getbanks>

Method ; POST

Headers:

- Authorization ; Bearer *accessToken*
- Content-Type ; application/json



Example:

POST <span>▼</span> https://psd2-api.finpass.eu/api/getbanks	
Authorization Headers (2) Body Pre-request Script Tests	
Key	Value
<input checked="" type="checkbox"/> Content-Type	application/json
<input checked="" type="checkbox"/> Authorization	Bearer 15F4E46544CC01F316127420201585064850FA5F58A2DC243724F64E14BDB0A7

[Figure 10. Example for setting content type and authorization headers]

This call returns a json like this one:

```
{
  "data": [
    {
      "code": "seb",
      "name": "AB SEB bankas"
    },
    {
      "code": "swedbank",
      "name": "Swedbank AB"
    },
    {
      "code": "dnb",
      "name": "AB DNB bankas"
    },
    {
      "code": "sb",
      "name": "AB Šiaulių bankas"
    },
    {
      "code": "citadele",
      "name": "AB Citadele bankas"
    },
    {
      "code": "bbva",
      "name": "BBVA"
    }
  ]
}
```

[Figure 11. GetBanks API response body json example]

# SCOPES

The responses for this API are accordingly filtered depending on the granted scopes associated to the OAuth token included in the requests for a given application.

The set of scopes that an application can request for its calls is initially set when the application is registered in Finpass BO. They can be updated later when editing the application's configuration.

Below are the available scopes for this API and the fields that they allow to retrieve:

## SCOPE LIST

Scope name	HTTPS
GetBanks	<a href="https://psd2-api.finpass.eu/api/getbanks">https://psd2-api.finpass.eu/api/getbanks</a>
StartRequest	<a href="https://psd2-api.finpass.eu/api/startrequest">https://psd2-api.finpass.eu/api/startrequest</a>
GetStatus	<a href="https://psd2-api.finpass.eu/api/getstatus">https://psd2-api.finpass.eu/api/getstatus</a>
GetResponse	<a href="https://psd2-api.finpass.eu/api/getresponse">https://psd2-api.finpass.eu/api/getresponse</a>

# SANDBOX

This API is included in a Sandbox environment to test your applications before accessing to live data.

Also we provide demo presentation page on how our service works: <https://psd2-web.finpass.eu>

A set of non-real users were created by default for each of your applications (see the table below).

## SANDBOX AVAILABLE ACCOUNTS

The user list available in the default data set for Sandbox are listed below.

Lithuanian banks – sandbox customer accounts are in preparation.

Spanish banks:

BBVA:

*API sandbox:*

---

**SER: 00000034B.**

Account identifier	Balance	# transactions
ES0182002000000000500000000332046493XXXXXXXXXX	6000.20 €	31
ES0182002000000000500000000332025505XXXXXXXXXX	0 €	0

---

U

User identifier	User password
00000034B	123456

## USER: 00001000B.

Account identifier	Balance	# transactions
ES0182002000000000000000000042128608XXXXXXXXXX	100000.88 €	11

User identifier	User password
00001000B	123456

## USER: 46757760W.

Just created user, without any account or transactions.

User identifier	User password
46757760W	123456

## USER: 78000000P.

Account identifier	Balance	# transactions
ES0182002000000000000000000042075349XXXXXXXXXX	0 €	13
ES01820020000000000500000000332067033XXXXXXXXXX	1000 €	35
ES01820020000000000500000000315017926XXXXXXXXXX	3010.03 €	0
ES01820201000000000500000000332163106XXXXXXXXXX	156.65 \$	0

User identifier	User password
78000000P	123456

Nordea:

*API sandbox:*

Press on „Mobile offline?“ text and enter

Id: 111111

password: 111111

*Screen scraping sandbox:*  
not yet available.

**SEB:**

*API sandbox:*  
SEB sandbox users: ibsUser1, ibsUser2, ibsUser3

*Screen scraping sandbox:*  
not yet available.

**Swedbank:**

*API sandbox:*  
Id: 111111  
password: 111111

*Screen scraping sandbox:*  
not yet available.

# TERMS & CONDITIONS

- [Terms & conditions](#)

# KNOWN ISSUES

Environment	Endpoint	Issue	Description
LIVE/Sandbox	BO	BO is preparing for LIVE release	BO is preparing for LIVE release
LIVE/Sandbox	WEB	Lithuanian is the only available language	Need to add more language translations
LIVE/Sandbox	BO	BO compatibility with mobile devices	BO web site is not compatible for mobile device access
Sandbox	WEB	Need screen scraping sandbox accounts	Need to create sandbox screen scraping accounts

Want to report a new issue? please help us by reporting it in our BO <https://psd2-bo.finpass.eu/>

PSD2 BO - Developer Portal

Search...

- Dashboard
- My apps
- Report Bug**
- Documentation

### Report a bug

Type \*

Endpoint  120 characters max

Issue  35 characters max

Description  160 characters max

[Figure 12. View of a page for reporting system bugs]

# GetBanks API

## /api/getbanks

### POST

Returns detailed information of all banks available for application.

Header Parameters	
Content-Type required ( string )	Content-Type Header. Content-Type Header, defines acceptable content-types for the response. The only accepted value is application/json <b>Example:</b> application/json
Authorization required ( string )	Authorization Header. Used to send a valid Bearer Access Token. <b>Example:</b> Bearer eJxt1MeOq1gUBdBfKXmKqshJctUTsUwwYBPNpHWBS7AxmBy

Request url: <https://psd2-api.finpass.eu/api/getbanks>

Response HTTP status code:

200 – Ok

401 – Unauthorized. Authorization header missing or invalid token

500 – Internal server error. Something went wrong on the API gateway or micro-service

Response:

Field	Description	Data type / SQL DB type
data.code	Abbreviation of banks name	String / varchar(35)
data.name	Banks name	String / nvarchar(70)

Example:

Response



```
{
  "data": [
    {
      "code": "seb",
      "name": "AB SEB bankas"
    },
    {
      "code": "swedbank",
      "name": "Swedbank AB"
    },
    {
      "code": "dnb",
      "name": "AB DNB bankas"
    },
    {
      "code": "sb",
      "name": "AB Šiaulių bankas"
    },
    {
      "code": "citadele",
      "name": "AB Citadele bankas"
    },
    {
      "code": "bbva",
      "name": "BBVA"
    }
  ]
}
```

[Figure 13. GetBanks API response body json example]

# StartRequest API

## /api/startrequest

### POST

Returns unique id and bank redirect url needed to redirect the customer to.

Header Parameters	
Content-Type required ( string )	Content-Type Header. Content-Type Header, defines acceptable content-types for the response. The only accepted value is application/json <b>Example:</b> application/json
Authorization required ( string )	Authorization Header. Used to send a valid Bearer Access Token. <b>Example:</b> Bearer eJxt1MeOq1gUBdBfKXmKqshJctUTsUwwYBPNpHWBS7AxmBy

Body Parameters	
bank required ( string )	Abbreviation of banks name, lower case
requestData.customerType required ( string )	Available customer types: Individual, Company <b>Example:</b> Individual
requestData.customerCode	National id number or company code
requestData.customerName	Customer's name and surname
requestData.customerEmail	Customer's email address
requestData.customerPhone	Customer's phone number
requestData.language	Language to show for customer when logging in to bank. 2 letter code

Request url: <https://psd2-api.finpass.eu/api/startrequest>

Response HTTP status code:

200 – Ok

400 – Bad request. Missing or non-compliant JSON body or URL parameters

401 – Unauthorized. Authorization header missing or invalid token

500 – Internal server error. Something went wrong on the API gateway or micro-service

Response:

Field	Description	Data type / SQL DB type
msgId	Unique Id that identifies request	String / varchar(36)
redirectUrl	Url address where to redirect the customer	String / varchar(255)

Example:

Request body parameters:

```
{
  "bank": "Bbva",
  "requestData": {
    "customerType": "Individual",
    "customerCode": "1111111111",
    "customerName": "Jonas",
    "customerEmail": "Jonaitis",
    "customerPhone": "+37000000000",
    "language": "lt"
  }
}
```

[Figure 14. StartRequest API request body json example]

Response:

```
{
  "msgId": "e76eeb55-a922-44df-ab99-48f79e106ed9",
  "redirectUrl": "https://psd2-web.finpass.eu/start/e76eeb55-a922-44df-ab99-48f79e106ed9"
}
```

[Figure 15. StartRequest API response body json example]

# GetStatus API

## /api/getstatus

**POST**

Returns request status identifier.

Header Parameters	
Content-Type required ( string )	Content-Type Header. Content-Type Header, defines acceptable content-types for the response. The only accepted value is application/json <b>Example:</b> application/json
Authorization required ( string )	Authorization Header. Used to send a valid Bearer Access Token. <b>Example:</b> Bearer eJxt1MeOq1gUBdBfKXmKqshJctUTsUwwYBPNpHWBS7AxmBy

Body Parameters	
msgld required ( string )	Unique message id from startrequest API

Request url: <https://psd2-api.finpass.eu/api/getstatus>

Response HTTP status code:

200 – Ok

400 – Bad request. Missing or non-compliant JSON body or URL parameters

401 – Unauthorized. Authorization header missing or invalid token

500 – Internal server error. Something went wrong on the API gateway or micro-service

Response:

Field	Description	Data type / SQL DB type
status	Request status. Possible values: RequestStarted, WaitingForConsent, Processing, Completed, Error	String / varchar(35)

Example:

Request body parameters:

```
{  
  "msgId": "e76eeb55-a922-44df-ab99-48f79e106ed9"  
}
```

[Figure 16. GetStatus API request body json example]

Response:

```
{  
  "status": "RequestStarted"  
}
```

[Figure 17. GetStatus API response body json example]

# GetResponse API

## /api/getresponse

### POST

Returns Finpass report response in such format: Base64String(gzipped(report json)).

Header Parameters	
Content-Type required ( string )	Content-Type Header. Content-Type Header, defines acceptable content-types for the response. The only accepted value is application/json <b>Example:</b> application/json
Authorization required ( string )	Authorization Header. Used to send a valid Bearer Access Token. <b>Example:</b> Bearer eJxt1MeOq1gUBdBfKXmKqshJctUTsUwwYBPNpHWBS7AxmBy

Body Parameters	
msgld required ( string )	Unique message id from startrequest API

Request url: <https://psd2-api.finpass.eu/api/getresponse>

Response HTTP status code:

200 – Ok

400 – Bad request. Missing or non-compliant JSON body or URL parameters

401 – Unauthorized. Authorization header missing or invalid token

500 – Internal server error. Something went wrong on the API gateway or micro-service

Response:

Field	Description	Data type / SQL DB type
response	Base64String(gzipped(report json)).	String / varchar(max)

Example:

Request body parameters:

```
{  
  "msgId": "e76eeb55-a922-44df-ab99-48f79e106ed9"  
}
```

[Figure 18. GetReport API request body json example]

Response:

```
{  
  "response": "H4sIAAAAAAAAAEANZzW6jSBDHXwVxndgCzIft02KbJIyc2MI4Gs0qhwZ6YzRAZ5vG094oh322fbGtbkF  
/wiSddpUqEMZja2MUm4Td9te8b68J9Jgcq9YS9HaVaPpyzdN81Xp0BTPvUcrdnAPEXFQ4UeuGUack8b/Xtcrb0Z1  
/bkSA/wHyvQ1Tec03Djm2Qbr70/Njp+I1Gt639A04wWm1fzp9QzNsCzN+tJs30EIFwKaZfCJBszTHZitW3bf7NsC  
/uGpKEogyLYRgPKSpKPFPMw4+HcP98/X7wrH6ZtDnrSfJgDP1EXQp4Px9bNnn06+TCsdyako1uGqXV7znvSYgOurv  
+JPKq8cGZpCpTCxiqzSDBaEA2XWKKaLxaiMCE8LBTriIV4RkCioSjULRp10mjEHgKtQmL04ZB7ujG204yHUt0Qy:  
/1wFsxNekygCZqIsGNn8LORWbSHXtw0Lyza6/f5+0K4fKLCkzeauJGrT2AUjmvuRULa9uZHfblqH5C2z3m51k0t:  
+FweuXRE+EaTbjGISxy3fmUx1E4nF55GC2xyHVtb80tN/Xxow/IjgL1BHrmKBx0r2f011jkupZYzDdYbtz5ZeApC  
/gKd6VMRYGr6z99A3YytM1bTRt3qM0wqBE2iQo3A4sQbhL2w6hvZTLAd1LbH0ze5g8DHe7YhQW1TCQd3ZVkrBjr  
}
```

[Figure 19. GetReport API response body json example]

C# example to decrypt report:

```
using System.IO;  
using System.IO.Compression;  
using System.Text;  
using ICSharpCode.SharpZipLib.GZip;  
  
public static string UnzipText(byte[] bytes)  
{  
    if (bytes == null)  
        return null;  
  
    using (Stream memInput = new MemoryStream(bytes))  
    using (var zipInput = new GZipInputStream(memInput))  
    using (var reader = new StreamReader(zipInput))  
    {  
        var text = reader.ReadToEnd();  
  
        return text;  
    }  
}
```

```
}  
}
```

```
var gzipByteArr = Convert.FromBase64String(response);  
var reportJson = UnzipText(gzipByteArr);
```

JSON example:



Response.json

Report class structure in C#:



Report.cs



Depending on APP's settings in BO response can include additional fields:

Scorify categories – blue color

Data summary – green color

Finpass Response with default fields – brown color

```
{
  "bank": {
    "country": "ES",
    "abbreviation": "Bbva",
    "name": "BBVA"
  },
  "requestData": {
    "customerType": "Individual",
    "customerCode": "11111111111",
    "customerName": "Finpass Demo"
  },
  "customerData": {
    "customerType": "Individual",
    "customerName": "Carmen Rodriguez Rodriguez",
    "sex": "FEMALE",
    "birthDate": "1970-08-19T00:00:00",
    "identityDocumentType": "XML",
    "identityDocumentNumber": "000000034B",
    "emailAddress": "caop@mailinator.com",
    "address": "ZIP code: 28001"
  },
  "accounts": [{
    "accountId": "ES0182002000000000500000000332046493XXXXXXXXXX",
    "iban": "ES4901821000030201761437",
    "currency": "EUR",
    "ownerType": "Private",
    "ownerCode": "016",
    "ownerName": "Titular",
    "statements": [{
      "fromDate": "2016-06-19T00:00:00Z",
      "toDate": "2018-06-19T00:00:00Z",
      "numberOfCreditEntries": 25,
      "numberOfDebitEntries": 0,
      "sumOfCreditEntries": -15240.37,
      "sumOfDebitEntries": 0.0,
      "balance": {
        "openingAvailable": 0.0,
        "closingAvailable": 6000.20
      }
    }],
    "transactions": [{
```

```

        "bookingDate": "2017-07-01T03:00:00+03:00",
        "valueDate": "2017-07-01T03:00:00+03:00",
        "creditDebitIndicator": "DBIT",
        "amount": -300.00,
        "details": "GUARDERIA LAS PALMERAS",
        "category": {
            "id": 65,
            "title": "Children",
            "hierarchy": [{
                "id": 69,
                "title": "School and baby-sitting"
            }]
        }
    }
}
}],
"dataSummary": {
    "currency": "EUR",
    "fromDate": "2016-06-01T00:00:00",
    "toDate": "2018-06-01T00:00:00",
    "periodSummary": {
        "totalLastMonth": {
            "income": 0.0,
            "expense": 0.0,
            "balance": 0.0
        },
        "totalLastYear": {
            "income": 0.0,
            "expense": -6855.38,
            "balance": -6855.38
        },
        "averagePerMonth": {
            "income": 0.0,
            "expense": -979.34,
            "balance": -979.34
        }
    },
    "monthlySummary": [{
        "yearMonth": "2017-06",
        "income": 0.0,
        "expense": -6555.38,
        "balance": -6555.38
    },
    {
        "yearMonth": "2017-07",
        "income": 0.0,
        "expense": -300.00,

```

```

        "balance": -300.00
    }},
    "incomeSummary": [{
        "categoryId": 85,
        "categoryTitle": "Salary",
        "amount": -1000.00,
        "percent": 100.0
    }],
    "expenseSummary": [{
        "categoryId": 59,
        "categoryTitle": "Education, health and beauty",
        "amount": -1716.00,
        "percent": 25.0
    },
    {
        "categoryId": 65,
        "categoryTitle": "Children",
        "amount": -626.50,
        "percent": 9.1
    },
    {
        "categoryId": 42,
        "categoryTitle": "Transportation",
        "amount": -3562.88,
        "percent": 52.0
    },
    {
        "categoryId": 51,
        "categoryTitle": "Leisure activities, traveling",
        "amount": -950.00,
        "percent": 13.9
    }
    ]
},
"reportCreatedDate": "2018-06-19T11:37:34.1024414+03:00"
}

```