

How to invoke an API

(Step-by-step tutorial)

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Create app

Step 1: Create new app

Developer portal -> Apps -> Create new app

Create a new application

Title *

Certificate

```
---BEGIN CERTIFICATE---  
MIIOTCCBiGgAwIBAgIIYWhVuHHU6sowDQYJKoZIhvcNAQELBQAwwGoxCzA  
JBgNV  
BAYTAKJHMRgwFgYDVQRhDA9OVFJCRyOyMDEyMzA0MjYxIDAeBgNVBAoM  
FOJPUKID
```

Description

Application OAuth Redirect URL(s)

✕

◀ ▶

[Add another item](#)

✕ Cancel ✓ Submit

Step 2: Get API key and secret



Application created successfully.



API Key and Secret

The API Key and Secret have been generated for your application.

Key

3527f1ef0fc6b1e7319667db8085a42f



Show

Secret

dcfa8a6609138027cfd04d902af632dc



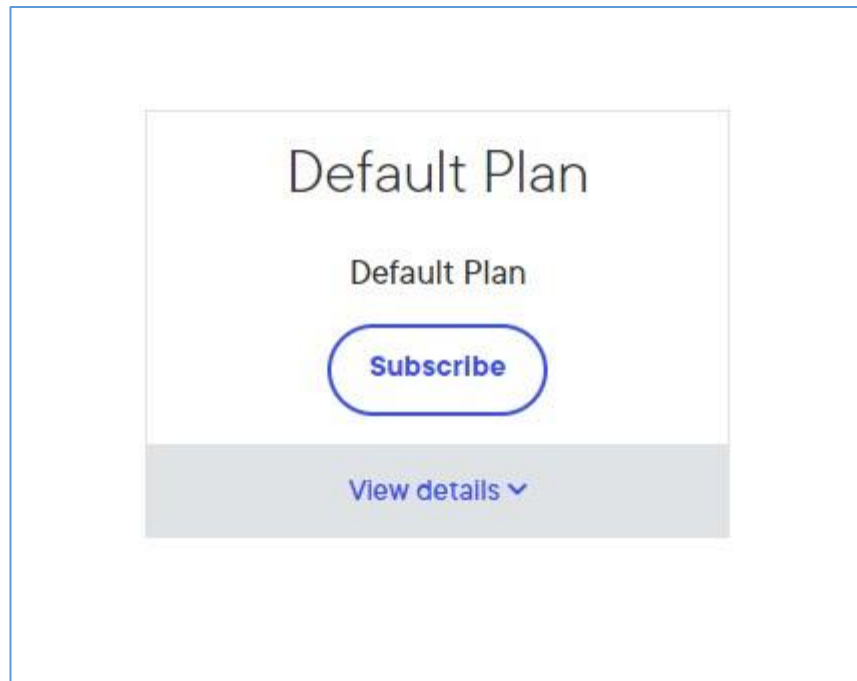
Show

The Secret will only be displayed here one time. Please copy your API Secret and keep it for your records.

[Continue](#)

Step 3: Subscribe for API

Developer portal -> API Products -> API -> Subscribe



Step 4: Confirm subscription

Confirm Subscription

A subscription will be created for the product, plan and application you selected.

Product

Account Information

Plan

Default Plan

Application

DemoApp

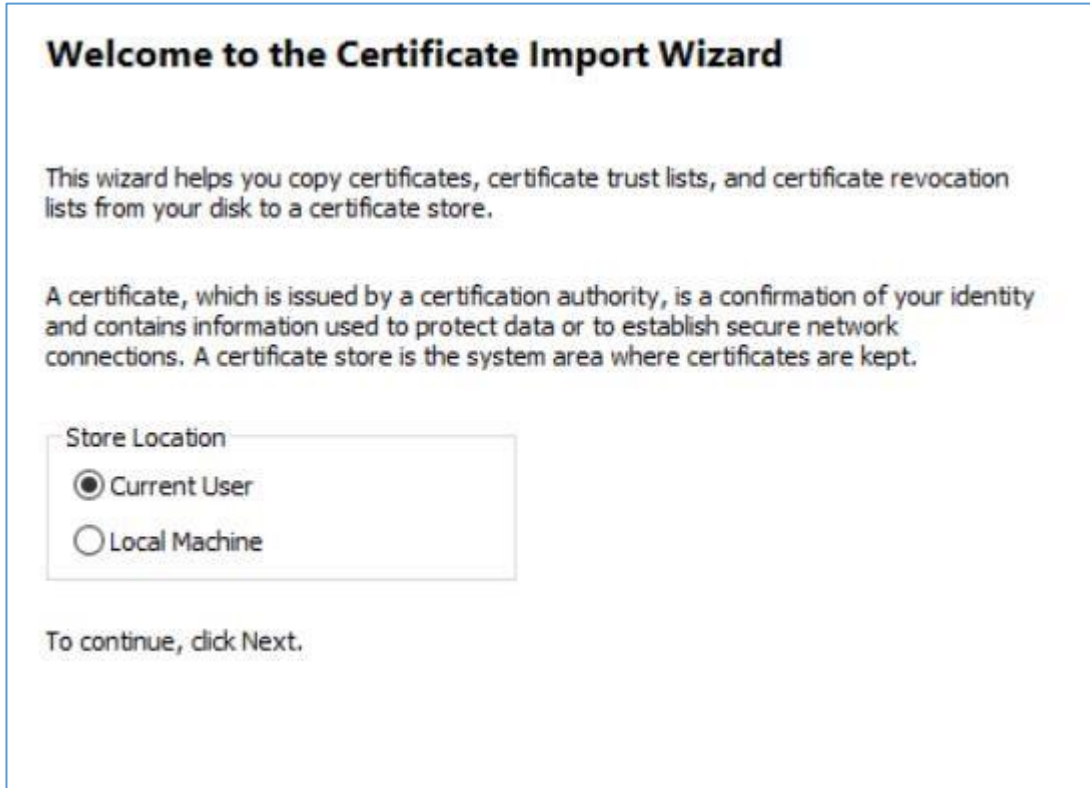
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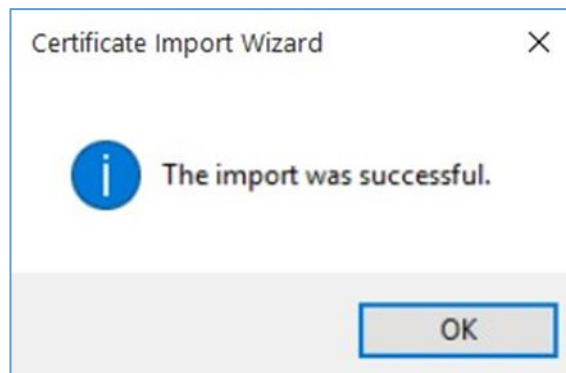
Try-it functionality

Step 1: Install your QWAC

You can use own QWAC or the test one provided in documentation section of the Developer portal (The password is “1234”). Follow the wizard for installation of the certificate.



You have to see a message like this:



Step 2: Get Token

Developer portal -> API Product -> API -> Request -> Try-it

1. Select your application as Client ID
2. Paste your client secret
3. Select scope
4. Press Get Token
5. Choose your QWAC from the list of certificates
6. The field Access Token will be filled in

Identification

Client ID
DemoApp

Client secret
.....

Authorization

Scopes
 consents

Token URL `https://psd2-apiuat.borica.bg/bank/psd2/oaauth/oaauth2/token`

Get Token

Access Token
.....

Fill in the body if is required. You can use the Generate option if you like.

Press the Send button

Body

body* Generate

generated

```
{
  "access": {
    "balances": [
      {
        "iban": "BG94BANK12341234567890"
      },
      {

```

Reset Send

Read the response.

Important!!! - Most of the browsers are not passing the Date header which is required because it is considered as unsafe. That is the reason for response bellow. Therefore we recommend to use a tool like Postman, SoapUI or other.

Response

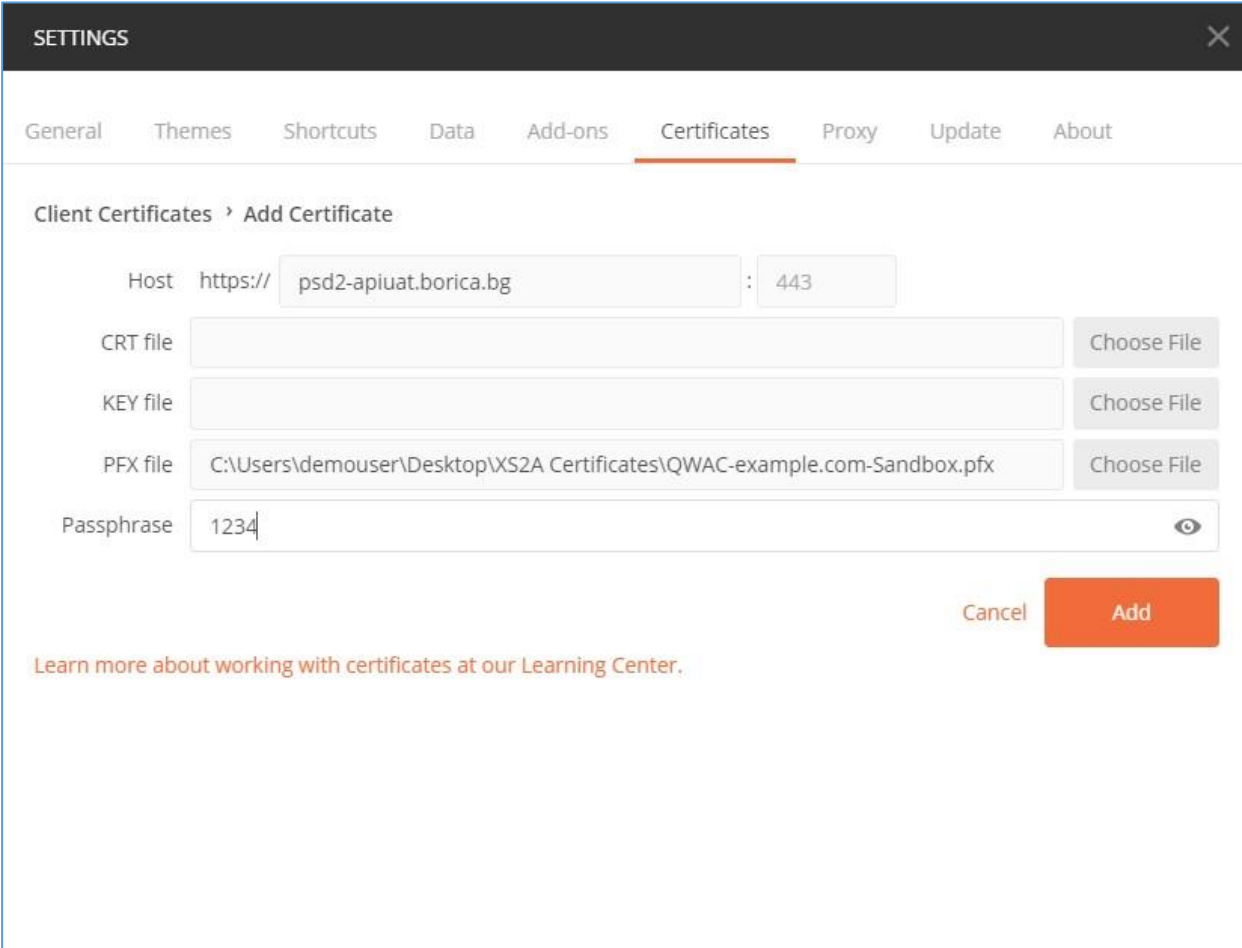
```
Code: 400 Bad Request
Headers:
content-type: application/json
x-global-transaction-id: 2f235e015d55c2ff000da8c2
{
  "tppMessages": [
    {
      "category": "ERROR",
      "code": "FORMAT_ERROR",
      "text": "A required header element is missing."
    }
  ]
}
```

Postman

Step 1: Configure your QWAC

Postman -> Settings -> Certificates -> Add certificate

1. Fill in the host of APIs
2. Choose your QWAC certificate
3. Write the passphrase for your QWAC



The screenshot shows the 'SETTINGS' window in Postman, specifically the 'Certificates' tab. The 'Add Certificate' dialog is open, showing the following fields:

- Host: `https://psd2-apiuat.borica.bg` : `443`
- CRT file: [Empty field] [Choose File]
- KEY file: [Empty field] [Choose File]
- PEFX file: `C:\Users\demouser\Desktop\XS2A Certificates\QWAC-example.com-Sandbox.pfx` [Choose File]
- Passphrase: `1234` [Eye icon]

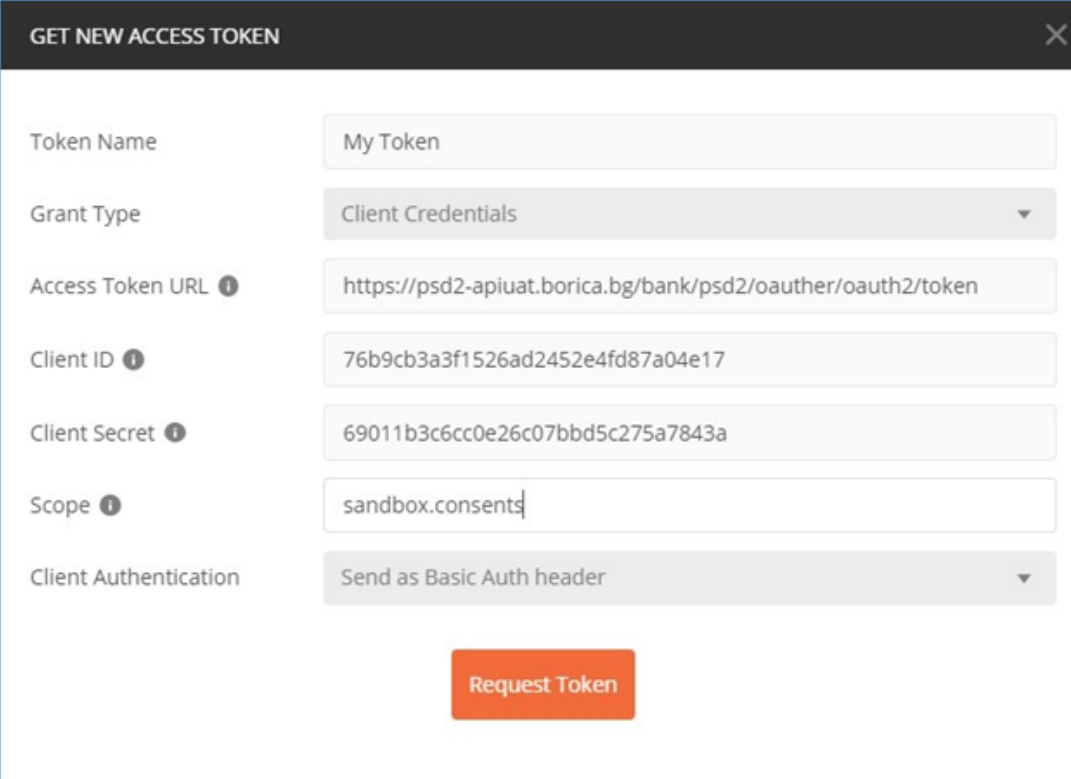
At the bottom right, there are 'Cancel' and 'Add' buttons. Below the form, there is a link: [Learn more about working with certificates at our Learning Center.](#)

4. Press button Add

Step 2: Get Token

Postman -> Authorization

1. Choose OAuth 2.0 as type
2. Press button "Get New Access Token"
3. Select Client Credentials for Grant Type
4. Fill the Access Token URL (described in Developer portal)
5. Fill Client ID & Client Secret of your application
6. Fill Scope (described in Developer portal)
7. Press button "Request Token"
8. After that, press button "Use Token"



The image shows a screenshot of the 'GET NEW ACCESS TOKEN' dialog box in Postman. The dialog has a dark header with the title 'GET NEW ACCESS TOKEN' and a close button (X) on the right. Below the header, there are several input fields and dropdown menus:

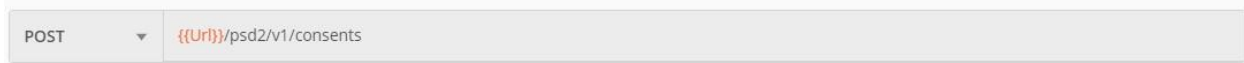
- Token Name:** A text input field containing 'My Token'.
- Grant Type:** A dropdown menu with 'Client Credentials' selected.
- Access Token URL:** A text input field containing 'https://psd2-apiuat.borica.bg/bank/psd2/oauth2/token'.
- Client ID:** A text input field containing '76b9cb3a3f1526ad2452e4fd87a04e17'.
- Client Secret:** A text input field containing '69011b3c6cc0e26c07bbd5c275a7843a'.
- Scope:** A text input field containing 'sandbox.consent'.
- Client Authentication:** A dropdown menu with 'Send as Basic Auth header' selected.

At the bottom center of the dialog, there is a prominent orange button labeled 'Request Token'.

Step 3: Method and API

Postman -> Headers

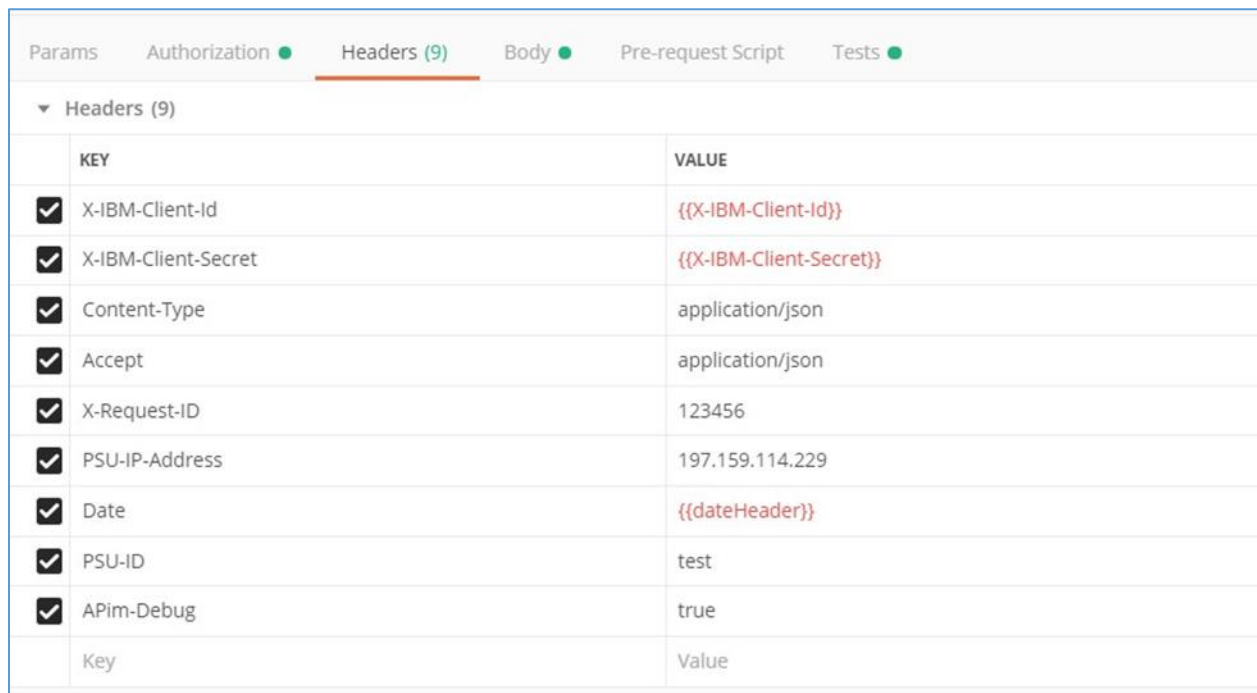
Fill in the method (POST, GET or DELETE) and URL of the API (described in Developer portal).



Step 4: Headers

Postman -> Headers

Fill in the all the required headers except X-Client-Certificate. It is used only in Try-it functionality of Developer portal.



The screenshot shows the 'Headers (9)' tab in Postman. It contains a table with 9 headers, each with a checked checkbox, a key, and a value. The headers are: X-IBM-Client-Id, X-IBM-Client-Secret, Content-Type, Accept, X-Request-ID, PSU-IP-Address, Date, PSU-ID, and APim-Debug. A 'Key' and 'Value' header is also present at the bottom of the list.

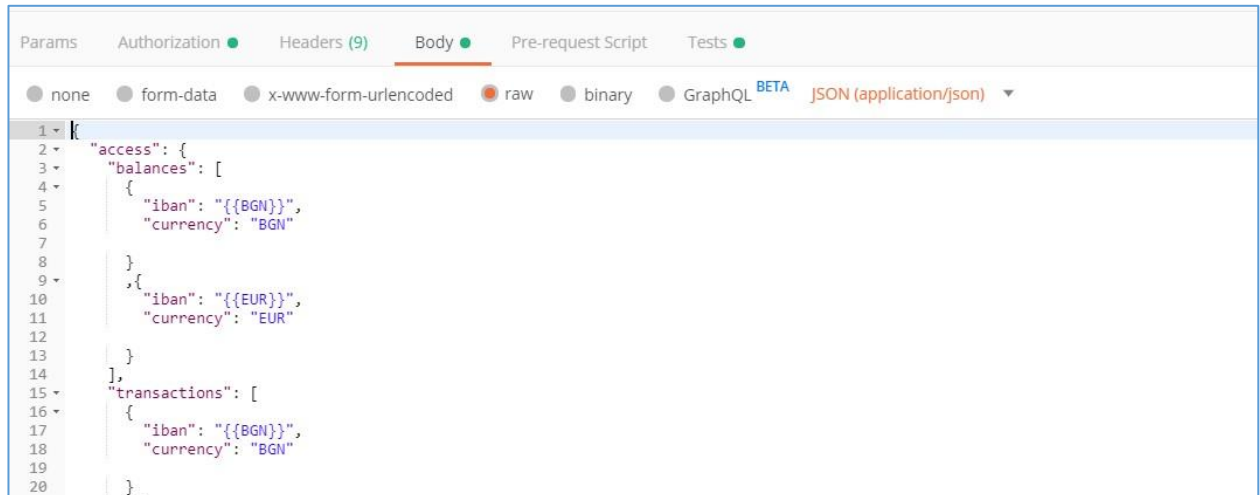
	KEY	VALUE
<input checked="" type="checkbox"/>	X-IBM-Client-Id	{{X-IBM-Client-Id}}
<input checked="" type="checkbox"/>	X-IBM-Client-Secret	{{X-IBM-Client-Secret}}
<input checked="" type="checkbox"/>	Content-Type	application/json
<input checked="" type="checkbox"/>	Accept	application/json
<input checked="" type="checkbox"/>	X-Request-ID	123456
<input checked="" type="checkbox"/>	PSU-IP-Address	197.159.114.229
<input checked="" type="checkbox"/>	Date	{{dateHeader}}
<input checked="" type="checkbox"/>	PSU-ID	test
<input checked="" type="checkbox"/>	APim-Debug	true
	Key	Value

Step 5: Body

Postman -> Body

Fill in the body if is needed.

Select raw and JSON (application/json).



The screenshot shows the Postman interface with the 'Body' tab selected. The 'raw' radio button is chosen, and the content type is set to 'JSON (application/json)'. The JSON payload is as follows:

```
1 | {
2 |   "access": {
3 |     "balances": [
4 |       {
5 |         "iban": "{{BGN}}",
6 |         "currency": "BGN"
7 |       },
8 |       {
9 |         "iban": "{{EUR}}",
10 |        "currency": "EUR"
11 |       }
12 |     ],
13 |     "transactions": [
14 |       {
15 |         "iban": "{{BGN}}",
16 |         "currency": "BGN"
17 |       }
18 |     ]
19 |   }
20 | }
```

Step 6: Invoke API

Press button Send