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1. Steps to be done by the customer

- Read the credentials received via email from dev portal

Developer Portal - Invitation



no-reply@verificationemail.com

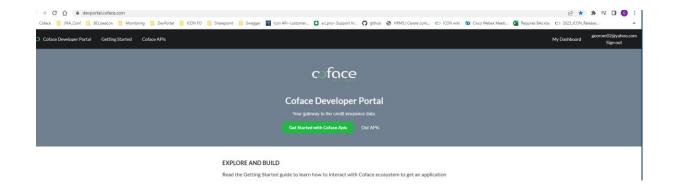
To: georom02@yahoo.com

Developer Portal

You have been invited to access the developer portal at https://devportal.coface.com.

Username: georom02@yahoo.com Temporary password: HBznU9

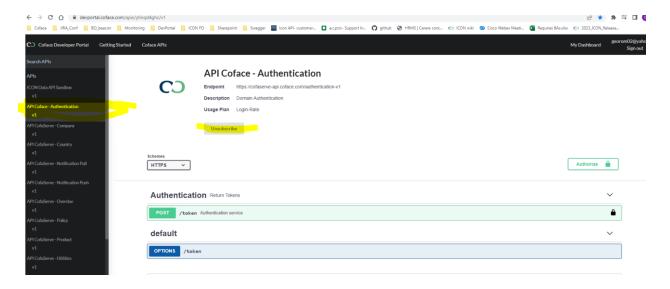
- Connects to https://devportal.coface.com.
- Introduces the credentials received in the email
- On first logging, he is asked to change the password.
- After changing the password, he is logged in into AWS gateway for Coface APIs:



- Go to My Dashboard for the API key needed for Authorization:



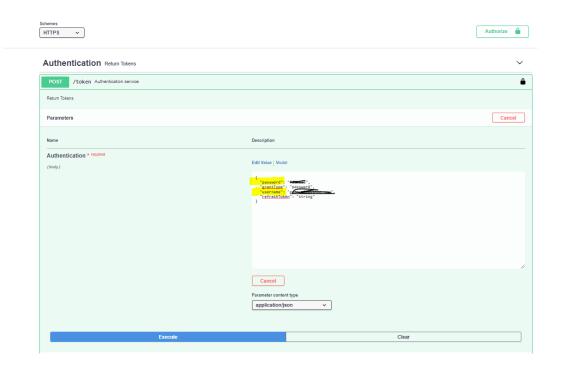
- Go to Coface APIs, API Coface - Authentication (on left side list) and Subscribe on it



1.1 Testing authentication via swagger

User needs to get the Token (the second key for authentication)

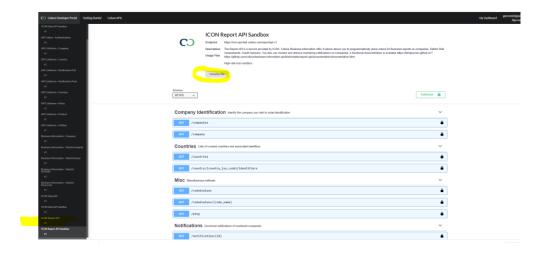
Click on POST /token, click on Try it out option, and introduce the password and username (the ones used for logging into Dev portal url) and press Execute:



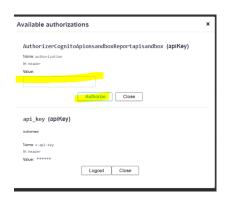
Response should be:



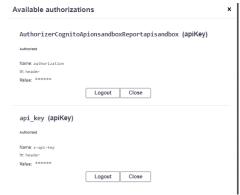
In this moment, the user is authenticated. Now s/he should subscribe to ICON report API Sandbox:



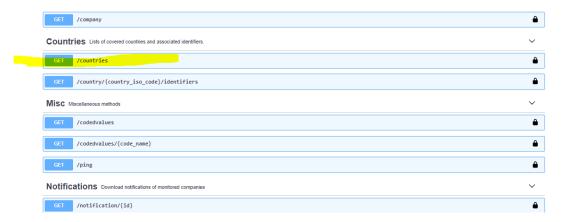
Click on Authorize and introduce the value of the token received:



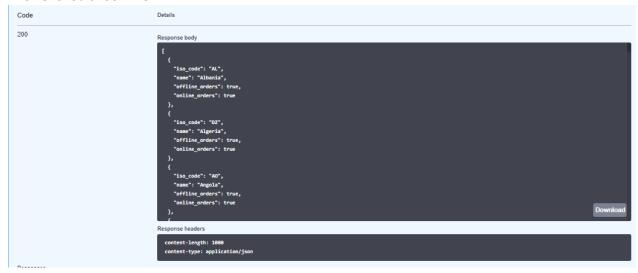
Once the token is introduced and validated, the window can be closed:



Once subscribed, user can start testing the Report API under Sandbox environment via swagger: One simple test/ call can be made to /countries endpoint: click on it, click on Try it out and then click Execute:



Answer should look like:



All cases from point 4 can be tested via swagger also.

1.2 Testing authentication via Postman

TBD

2. Usage of Report API

The main functional flows are represented in https://coface.github.io/v1.html#process .

Always the customer needs to

- start with Searching and identifying a company,
- checking the products availability,
- order a product,
- check the status of the order and
- Retrieve the data.

All functional calls below can be found in the Postman collection uploaded under https://coface.github.io/v1.html section Technical documentation.

Remark!! In the sample calls which follow , the variable {{reportAPIBaseUrl}} = https://icon-api-test.coface.com/reportapi-v1

2.1 Get country identifiers

- Allows to obtain details of identifiers in specific countries which can be used for unique company identification.
- Request can be done by specifying country ISO Code and in return customer get list of identifiers used in specific country

Request: **GET** {{reportAPIBaseUrl}}/country/PL/identifiers

Response: {

```
"name": "Tax number"
         },
         {
              "code": 120,
              "name": "VAT number"
         },
              "code": 140,
              "name": "Statistic number"
         },
         {
              "code": 800,
             "name": "Coface CRS Number"
    ]
}
GET Get Countries identifiers + ***
 ICON Report API / 00 - Get a token / Get Countries identifiers
 GET 

{{reportAPIBaseUrl}}/country/PL/identifiers
 Params Authorization Headers (8) Body Pre-request Script Tests Settings
 Query Params
     KEY
                                                             VALUE
     Key
                                                              Value
Body Cookies Headers (17) Test Results
  Pretty Raw Preview Visualize JSON V
   1 {
    2
           "company_id": true,
           "icon_number": true,
           "easy_number": true,
           "national_identifier_types": [
    5
                  "code": 0,
    8
                  "name": "National ID"
   10
                  "code": 1,
   11
              "code": 1,
"name": "Registration Number"
   12
            "name": "Tax number"
   16
   17
   18
   19
                  "code": 120,
   20
                 "name": "VAT number"
   21
   22
                  "code": 140,
   23
                  "name": "Statistic number"
   24
   25
   26
                  "code": 800,
   27
                  "name": "Coface CRS Number"
```

2.2 Search a company (identification of a company in the database)

There are two methods dedicated in this direction:

2.2.1 Get /companies

Allows to perform search by name and address mostly. Search can be performed using country_iso_code with any combination of company_name, zip-code or city;

GET {{reportAPIBaseUrl}}/companies?country_iso_code=FR&company_name=ANTALIS => 28 companies returned

GET {{reportAPIBaseUrl}}}/companies?country_iso_code=FR&city=Paris => 30 companies returned

If more parameters are used, more accurate the search is and company is identified:

GET {{reportAPIBaseUrl}}/companies?country_iso_code=FR&company_name=ANTALIS&city=Paris => 6 companies returned

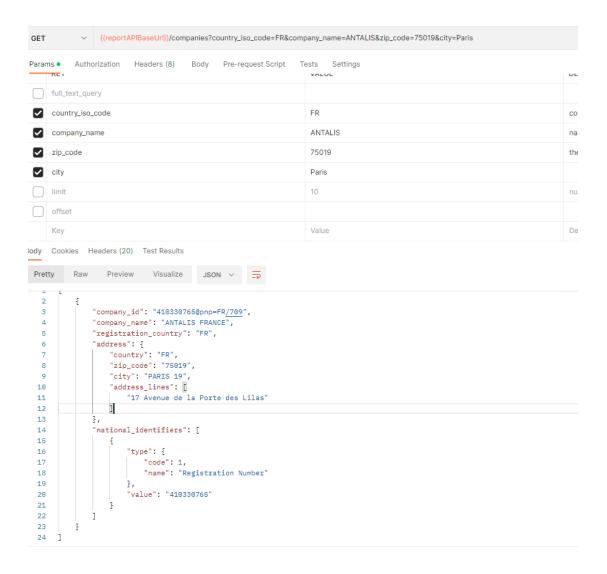
GET {{reportAPIBaseUrl}}}/companies?country_iso_code=FR&company_name=ANTALIS&zip_code=75019&city=Paris => 1 result returned. Company is identified.

In case of any search, the country code is mandatory (otherwise 400 Bad request is returned) and as response, the list with companies found in ICON will be provided. Together with their details.

Response includes: company ID (which can be used further to check what products are available for company using GET /company call) company name, registration country, address and national identifiers. National Identifiers can be also used further for checking the products or for ordering products.

Remark!! This call is not returning list of available products.

GET /companies method allows to search using also the parameter <code>full_text_query</code> which allows to enter any kind of information such as name or address details and with combination of country (ISO code) which is mandatory to perform search, will return details of companies that have been identified. Search response is using boost factor which means that most accurate results are on top of returned list. List of possible results can be also restricted by using <code>limit</code> parameter also.



2.2.2 Get /company

Allows to search for specific company by providing either company ID (which was found by GET /companies method) or by providing unique company Identifiers (like icon number, easy number or one of the national_identifiers).

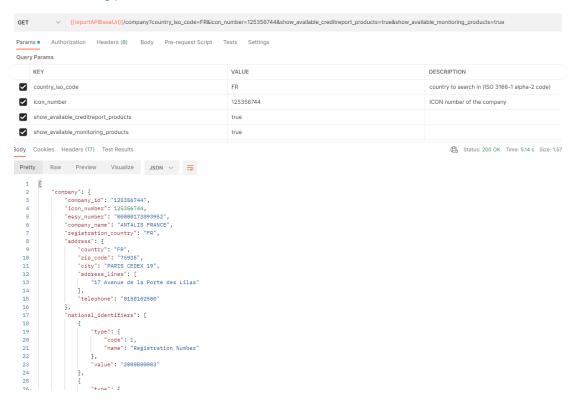
Call returns either 1 unique result or no results and country_iso_code is mandatory for this method as well.

Remark: with this call available products can be returned; in order to get details of available products for this company, parameters **show_available_creditreport_products** and

show_available_monitoring_products needs to be set to true because by default they are set to false

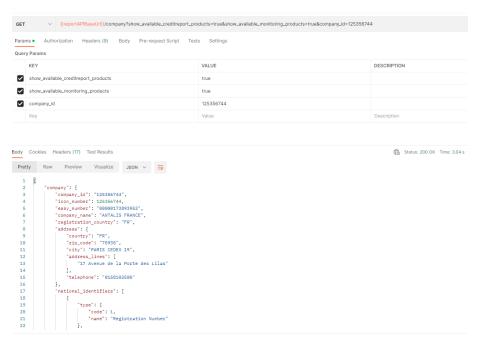
Identifying company using icon number:

 $GET\{\{reportAP|BaseUrl\}\}\ / company? country_iso_code = FR\&icon_number = 125356744\&show_available_creditreport_products = true\&show_available_monitoring_products = true \\$



Identifying company using company_id:

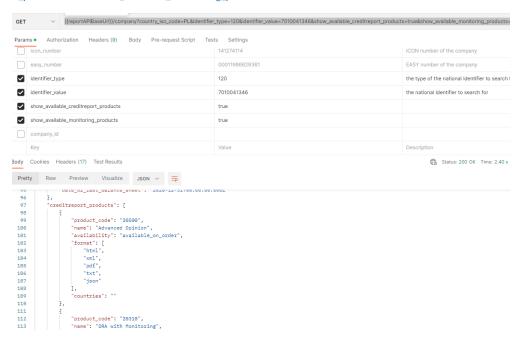
GET{{reportAPIBaseUrl}}/company?show_available_creditreport_products=true&show_available_monitoring_products=true&company_id=125 356744:



Identifying company using one of national_identifiers, vat-number:

When company was searched, national_identifiers were also returned. Vat number was with code 120, therefore parameters *identifier_type*=120 and *identifier_value*= {VAT value} will be used.

 $GET\{\{reportAPIBaseUrl\}\}\ / company? country_iso_code=PL\&identifier_type=120\&identifier_value=7010041346\&show_available_creditreport_products=true\&show_available_monitorinq_products=true.$



In all cases, response should be identical. It contains information about the company requested, creditreport_products section including all available products and also monitoring_products section including the standalone monitoring products.

Remark!! Monitoring products cannot be ordered as single products; only in combination with a standalone product. But there are combined products which can be used in order to avoid misusage.

E.g Customer can order Advanced Opinion with Monitoring (if s/he wants also monitoring) instead of ordering Advanced Opinion + monitoring of Advance Opinion.

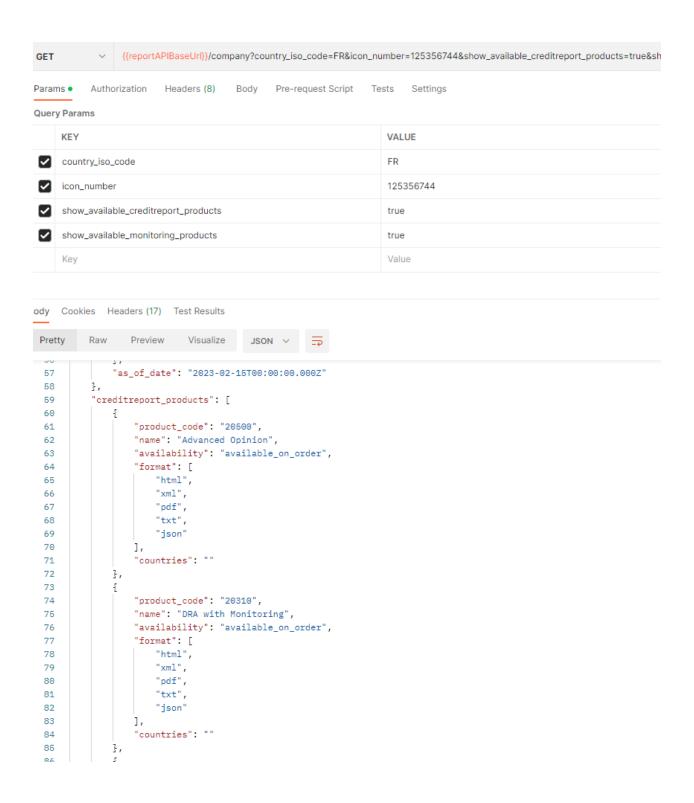
Remark!! Available products from creditreport_products section are the ones which are available for corresponding customer based on configuration made in BO

Remark: For each product, "countries" element is present in the response representing the cpuntries where the product is available.

```
"countries": "" => means that product is available in all countries
```

There is no possibility to request this products in not specified countries

[&]quot;countries": "AL, BA, BG, CZ, EE, HR, HU, KV" => means the product is restricted to listed countries.



In this point, customer either identified company and found list of available products, or did not succeeded to find company. In both cases, s/he can proceed to ordering credit report product using POST method to make an order. The structure of the request depends from the result of searching/identification of company.

2.3 Ordering a product

Method to be used: **POST** {{reportAPIBaseUrl}}/orders/creditreport

No parameters

Body of the request should contain mandatory information such as: company-id or other identifier, product code, format, language. Products available and their availability are returned previously by calling GET /company endpoint (mentioned at 4.2.2).

More details and explanation for fields that need to be present in the body, can be found behind each element from swagger, by clicking on Model and after that, on arrow down for each drop down that is available.

Swagger can be found under AWS Dev portal: https://devportal.coface.com/apis/qves74kqv0/v1

```
unique id of the company
company_unidentified \sim {
                        description:
                                            Fill this out if you have not yet uniquely identified the company (using findCompany or identifyCompany)
                        national_identifiers v [
                                              a list of national identifiers for the company (e.g. VAT ID)
                                              NationalIdentifier ✔ {
                                                 type NationalidentifierType > {...}

value string
example: R12312323
the national identifier
                         address_lines
                                             > [...]
                                              city where the company is located
                         registration_country* string
                                             ISO 3166-1 alpha-2 code
                                             example: Smith Sheet Metal Inc.
                                           name of the company string
                                             postal code of company address
customer_reference
                     your own identifier for the order which was given when you placed the order
credit_report_details RequestedCreditReportDetails < {</pre>
                        research callback url string($uri)
                                             example: https://mycompany.com/credit-report-orders/order-complete?our_ref=AB788823
                                              a URL which ICON will call when the order is ready
```

Full sample can be found in swagger:

```
"customer_reference": "string",
  "company_id": "string",
  "company_unidentified": {
    "name": "Smith Sheet Metal Inc.",
    "registration country": "PL",
    "national_identifiers": [
      {
         "type": {
          "code": 120,
          "name": "VAT Number"
        "value": "R12312323"
      }
    "city": "string",
    "zip_code": "string",
    "address lines": [
    "string"
    1
  "product_details": {
    "product code": "string",
    "language": "string",
    "format": "html"
  "credit_report_details": {
    "research_instructions": "immediate_if_available_research_otherwise",
"research_callback_url": "https://mycompany.com/credit-report-orders/order-complete?our_ref=AB788823",
    "research_delivery_speed": "normal",
    "max_credit_amount": 0,
"max_credit_currency": "string",
    "requested amount": "string",
    "report currency": "",
    "question": "Is this company actually doing business at the registered address?"
}
```

2.3.1 Ordering a product for a company identified:

```
POST
      Authorization Headers (12) Body ● Pre-request Script Tests ● Settings
none form-data x-www-form-urlencoded raw binary GraphQL JSON v
  2
       "company_id": "125356744",
 3
      ·"product_details": {
       ·· "format": "pdf",
       ···"language": ·"en",
        ·"product_code": "197"
       "credit_report_details": {
       ···"research_instructions": ·"immediate_if_available_research_otherwise",
      ··· "research_delivery_speed": "normal"
 10
 11
      - }
 12
```

Body of the request should contain company_id, product details and some instructions inside section credit_report_details.

For example, if product has availability "available_immediately" then the report is returned immediately. But if the product has the availability "available_on_order" then with the research_instructions parameter, the customer can say that s/he would wanted immediate if available or can wait if is not available. And as speed, can also be: normal, flash or express. Depending in these values, backoffice manual work is done with according priority.

4.3.2 Ordering a product for a company not identified

The body of the request should contain as much as possible information in section "company_unidentified". Product_details or credit_report_details sections should be also in this case present, filled in with according information.

Remarks!!

1. Products Ids

In order to request reports, customer need to know product codes. S/He can find these details in response of the method GET /company: which products are enabled for him and with which availability. But just in case please find below list of product codes for standard offer:

•	DRA – Debtor Risk Assessment	=> 20300
•	DRA with Monitoring	=> 20310
•	@Credit Opinion	=> 20400
•	@Credit Opinion With Monitoring	=> 20410
•	Advanced Opinion	=> 20500
•	Advanced Opinion With Monitoring	=> 20510

Snapshot Report => 9993
 Snapshot Report with Monitoring => 9992
 Full Report => 199
 Full report With Monitoring => 197

Attention: for DRAGON products (DRA, CO, AO) availability is not immediate, therefore research_instructions should be research_no_immediate with delivery speed normal.

2. Offline requests

Customer can request offline (investigation request either with providing company ID or providing company details where country and address will be mandatory in order to allow to identify company). In case of offline order request should include research instructions research_no_immediate.

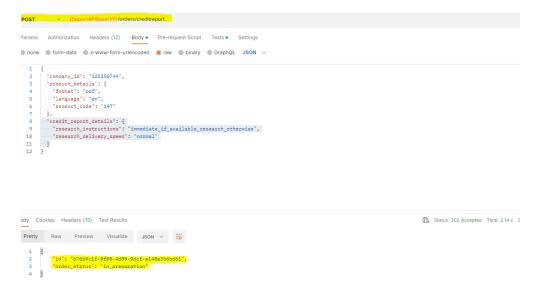
Third option which is **immediate_if_available_research_otherwise** can be used in case if company ID is provided within request (company is identified in ICON) and in that case if report is available immediately it will be returned and if not, investigation request will be done based on specified delivery speed.

3. Format of reports

API allows to request report in different formats such as JSON, XML, PDF or HTML. For JSON and XML it will require additional mapping on customer side to integrate structured form of data to his own system needs.

2.4 Checking order status

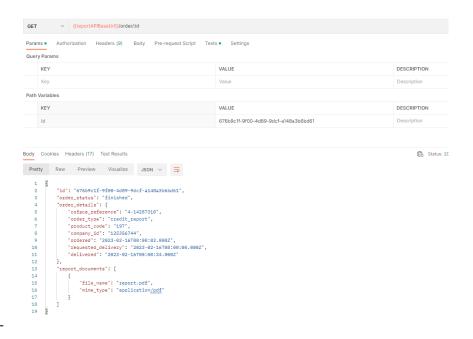
- After using the POST method, customer gets as response an id which allows checking the status of request (initial status of request is "in_preparation"):



- Order can be checked also in backend, using the id value for order guid:



- Status should be checked by the customer using GET {{reportAPIBaseUrl}}/order/{id}

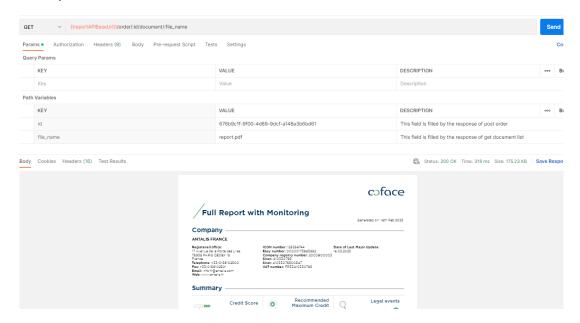


Response is including the status of the order. This action should be performed until status is "finished".

Also the name of the document that will be returned is included in the response, *file_name*.

2.5 Retrieving the data

- If order is finished, customer can call method *GET /order \{id\} / document / \{file_name\}* to get the content of the product :



2.6 Request Monitoring

Customer can request monitoring, by **ordering one of the combined products**: *Full Report With Monitoring, Snapshot Report with Monitoring, DRA with Monitoring, @ Credit Opinion with Monitoring, Advanced Opinion with monitoring.*

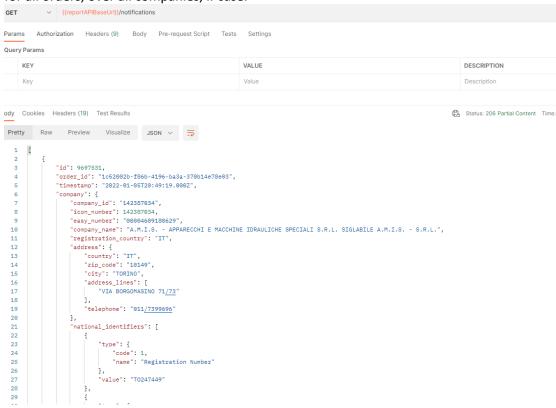
Monitoring for business reports is restricted to specified list of countries (details which are returned together with product available performing the call *GET /company*) and only identified companies can be monitored.

By default Monitoring should last 12 months.

If the request will be successful then the company will be monitored.

2.7 Retrieving monitoring notifications

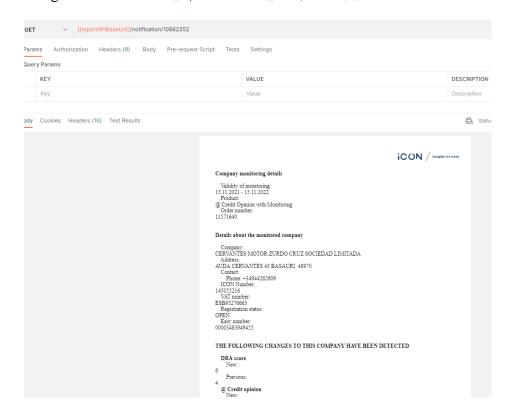
In order to get pending monitoring notifications customer can use method GET{{reportAPIBaseUrl}}/notifications Method can be called without any parameter and it will return all notifications received by the customer for all orders, over all companies, if case.



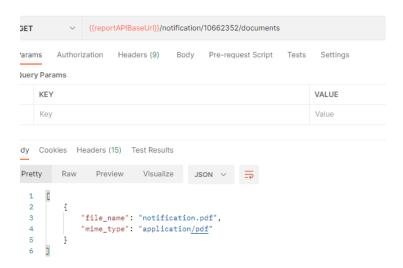
Method can be also called using one of the specified parameters in swagger (Specifying the period for which he wants to get notifications):

ROUTICATIONS Download indinications of monitored companies				
GET /notifications				
Get a list of available monitoring notifications.				
Parameters				
Name	Description			
notification_timestamp_from string(\$date-time) (query)	Lower limit (inclusive) for the date of retrieved notifications			
	notification_timestamp_from			
notification_timestamp_to string(\$date-time) (query)	Upper limit (inclusive) for the date of retrieved notifications			
(400.3)	notification_timestamp_to			
offset integer (query)	starting point within paged results (the X-Total-Count header of the response indicates the total number of results found)			
(data)	Default value : 0			
	0			
limit integer	number of results to fetch starting from offset (the X-Total-Count header of the response indicates the total number of results found)			
(query)	Default value : 20			
	20			

Response contains ID of the notification, therefore customer can retrieve notification content using the method *GET* {{reportAPIBaseUrl}}/notification/{id}



If notifications include multiple attachments, customer can use method GET{{reportAPIBaseUrl}}/notification/{id}/documents to obtain the names of the attachments:



3. Possible use cases

Please note that it will not cover all case scenarios; since we have multiple customer configurations, below cases are covering standard offer with Full Report and Snapshot product enabled or DRA and CO

3.1 Request to order Business report (Full Report) immediate

Assuming the customer has the name and address of a company for which s/he wants a report:

- first, use the "find company" operation by calling GET /companies to find the company or use "identify company" operation by calling GET /company(if customer knows an unique identifier of the company)
- List of matching companies are returned (for GET /companies) or unique company (for GET /company)
- Using the "company_id" of the selected/returned company, orders a report on the company, using the "placeOrder" operation (call POST /orders/credit report).
- needs to make sure that is correctly entered the product code (199), the format and the language along with research instruction
- Assuming that returned company details indicated that report is available online, in research_instructions enter: immediate_no_research.
- The response contains the id of the order.
- The "getOrder" operation is used to get the status of the order (call GET /order/{id})
- When the order is ready, do operation "getOrderDocumentList" (call GET /order/{id}/documents)
- A list of documents for the order is returned
- do operation "getOrderDocument" (call GET /order/{id}/document/{file name}) which will return the selected document (the full report).