CIX Intelligence

CIX Intelligence API - Client Usage Guide

Version 1.0

Pre-Requisite

You should already have received your `client_id` and `client_secret` pair. If you haven't received them yet, please get in touch with our Operations Team.

Getting started

Once you have received your `client_id` and `client_secret`, you can start invoking our APIs. It's a two step process:

1. Use your provided credentials to obtain a JSON Web Token
2. Invoke Intelligence APIs using the JWT previously obtained

Authentication

To authenticate and receive a Json Web Token, invoke the following Endpoint:

```
1  POST https://login.microsoftonline.com/cixportal.onmicrosoft.com/oauth2/v2.0/token
2  Content-Type: application/x-www-form-urlencoded
3
4  grant_type=client_credentials
5      &client_id=<your_client_id>
6      &client_secret=<your_client_secret>
7      &scope=https://cixportal.onmicrosoft.com/file-service-prd/.default
```

The response should look like this:

```
1  {
2    "token_type": "Bearer",
3    "expires_in": 3599,
4    "ext_expires_in": 3599,
5    "access_token": "eyJ0eXAiOiJKV1QiLCJhbGciO....."
6  }
```

Store the value provided in the "access_token" property. You will use it for all subsequent API calls.

⚠ The token lasts 3600 seconds (1 hour). After the expiration, you will have to call the authentication endpoint again, to obtain a new token.

Invoking Intelligence APIs

Getting the list of available files

To get the list of available files, the following endpoint can be invoked:

```
1  GET https://api.home.climateimpactx.com/api/file-service/api/v1/intelligence/files/downloads
2  Authorization: Bearer <your_json_web_token>
3  Accept: application/json
```

This is a sample of the response (please see the Response JsonSchema in the Appendix at the end):

```
 1  [
 2    {
 3      "componentName": "VCM Trade Database & CIX Benchmarks - Daily",
 4      "description": "VCM trade database including CIX and OTC transactions, bids, offers and indications",
 5      "fileName": "CIX_Trade_Database_MTD",
 6      "slug": "8ab30ebf-b9db-442e-8fd3-bbebdb06baee",
 7      "fileType": "csv",
 8      "lastModified": "21_06_2024 16:32:37",
 9      "fileSizeInBytes": 30207
10    },
11    {
12      "componentName": "VCM Trade Database & CIX Benchmarks - Full History",
13      "description": "VCM trade database including CIX and OTC transactions, bids, offers and indications",
14      "fileName": "CIX_Trade_Database_Historical",
15      "slug": "8820c6c0-8fce-4b72-9933-915073ef39e9",
16      "fileType": "csv",
17      "lastModified": "21_06_2024 16:33:26",
18      "fileSizeInBytes": 535315
19    },
20    {
21      "componentName": "CIX Benchmarks - Full History - CSV",
22      "description": "CIX benchmark price assessments",
23      "fileName": "CIX_Benchmarks_Historical",
24      "slug": "e907bbf9-6313-4e3c-b3c4-32d3fe9528bf",
25      "fileType": "csv",
26      "lastModified": "21_06_2024 16:36:41",
27      "fileSizeInBytes": 968538
28    },
29    ...
30  ]
```

`componentName` indicates the name of a report. It is a *logical* name. The real file name, in fact, will be different (and it's denoted by the `fileName` property).

The `slug` is a unique identifier for a specific report. You can use it to download a specific file.

Download a file

To download a file, you can invoke the following endpoint, for which you will need a slug (see above).

```
1  GET https://api.home.climateimpactx.com/api/file-service/api/v1/intelligence/files/downloads/<slug>
2  Authorization: Bearer <your_json_web_token>
```

⚠ Don't rely on specific slug values or store them long-term, since they might be subject to change without notice. To be sure to download a valid file, first invoke the list files API. From there, select the slug for the file (or files) you wish to download, and then invoke the specific endpoint for each file.

The Response will be a binary stream representing the requested file.

Common Error Scenarios

Trying to authenticate with an invalid client_id/secret (HTTP Error code 400):

```
 1  {
 2    "error": "invalid_grant",
 3    "error_description": "AADSTS501051: Application '...' is not assigned to a role for the application 'https://cixportal.onmicrosoft.com/file-service-prd'(file-servi
 4    "error_codes": [
 5      501051
 6    ],
 7    "timestamp": "2024-06-21 11:07:10Z",
 8    "trace_id": "...",
 9    "correlation_id": "...",
10    "error_uri": "https://login.microsoftonline.com/error?code=501051"
11  }
```

Passing an invalid/expired JWT to the List Files API (HTTP Error code 401):

```
1  {
2    "statusCode": 401,
3    "message": "Invalid JWT."
4  }
```

Passing an invalid/expired JWT to the Download File API (HTTP Error code 401):

```
1  {
2    "statusCode": 401,
3    "message": "Invalid JWT."
4  }
```

Passing an invalid slug to the Download File API (HTTP Error code 400):

```
 1  {
 2    "errors": [
 3      {
 4        "id": "44c300c7-261b-4d48-bb9e-0273f3179fe2",
 5        "code": "file-400-13",
 6        "title": "Exception while downloading file",
 7        "detail": "Invalid slug: 4a5bd59a-7fde-4244-96fd-9cebc81eb5b1.",
 8        "meta": {
 9          "operationParent_Id": "f83a15f812446ceb",
10          "operation_Id": "a17ae2e4c2c8190168776e97d7434eb5"
11        }
12      }
13    ]
14  }
```

Appendix

Response Schema for the "List Available Files" Endpoint:

```
 1  {
 2    "type": "array",
 3    "items": {
 4      "type": "object",
 5      "properties": {
 6        "componentName": {
 7          "type": "string",
 8          "description": "the report name"
 9        },
10        "description": {
11          "description": "describes a report",
12          "type": "string"
13        },
14        "fileName": {
15          "description": "the physical file name",
16          "type": "string"
17        },
18        "slug": {
19          "description": "a unique identifier for a specific report",
20          "type": "string"
21        },
22        "fileType": {
23          "description": "the file extension",
24          "type": "string"
25        },
26        "lastModified": {
27          "description": "date/time When the report was created",
28          "type": "string"
29        },
30        "fileSizeInBytes": {
31          "description": "the file size (in bytes)",
32          "type": "integer",
33          "format": "int64"
34        }
35      }
36    }
37  }
```