CESOP Web Service API for Payment Service Providers

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Version History

Version	Description
1.0.0	Initial Version of the CESOP Web Service API

Introduction

The CESOP Web Service API for payment service providers is used for the automated transmission of payment data and for querying the processing status of transmitted payment data via a web-based programming interface (API, Application Programming Interface). In order to authenticate web service calls and thus assign them to your company, a so-called API key must be sent in a defined HTTP request header in the HTTP call. This API key can be managed in the CESOP portal for payment service providers, as described below.

Test Transmission

In order to support the development of your client software, the CESOP Web Service API offers, in addition to the endpoints for production transmission of payment data, also endpoints for test transmission, which you can use to test your software in the course of development. For this

purpose, there is a separate API key for the test API as well as a separate one for the production API. The keys cannot be used reciprocally.

Please note that payment data transmitted via the Test API will only be used for technical tests and will not be used to fulfill legal reporting requirements.

API Key Management

IMPORTANT NOTE	The API key is to be treated like a password, as it can be used to transmit CESOP payment data on behalf of your company or to read metadata about your transmitted data.

Generating an API Key

To activate the CESOP Web Service API for payment service providers for your company, an API key has to be generated in the CESOP Portal for payment service providers. To do this, open the menu item "Produktionsübermittlung" or "Testübermittlung" and click on the menu item "Zugangsdaten Webservice". Then click on the button "API Schlüssel erzeugen". An API key will be generated and displayed **only once**. For security reasons, the API key is stored in our database in encrypted form and cannot be displayed again later in plain text. The key can be copied to your clipboard by clicking the "Kopieren" button or by manually selecting it and pressing CTRL+C. Paste the API key into the configuration of your application and optionally store it in a secure location.

Deleting an API Key

To disable access to the CESOP Web Service API for payment service providers, the API key can be deleted in the CESOP Portal for payment service providers. To do so, click on the "API Schlüssel löschen" button. To re-enable API access, a new API key must be generated.

Authentification with an API Key

The API key generated in the CESOP portal for payment service providers must be sent in the HTTP header `X-CESOP-API-KEY of` the web service requests.

```
X-CESOP-API-KEY: oUthYSTaQEWJXXmwR1XyBQUbDcttfosUahxXt2tCj7emdhEgCFzkaD74PCnDFJLQ
```

Requests without or with invalid API key are answered with HTTP status code `401 - Unauthorized`.

General Error Codes

Client side errors like invalid parameter values or HTTP methods are answered with HTTP status codes 4xx. If an unforeseen server-side error occurs in the application, it is answered with status code `500 - Internal Server Error`. In addition, under certain circumstances, such as network problems, the status codes `502 - Bad Gateway`, `503 - Service Unavailable`, or `504 - Gateway Timeout`, which are generated by proxy servers are returned.

Errors are returned in the form of a JSON object. The attributes "title" and "status" contain the HTML status code of the error. Also present is a "timestamp" and a "detail" field. The cause(s) can be taken from the "messages" field, which is a list of all errors that have occurred.

OpenAPI 3.0 Specification

In addition to this documentation, you can use the included OpenAPI 3.0 specification of the CESOP Web Service API in JSON format (cesop-ws-v1-0-0.json) to generate automated client code for your application.

API Endpoints

For test and production submissions, there are two separate API base URLs with functionally identical endpoints:

- `https://fon-cesop.bmf.gv.at/psp/api/test`
- `https://fon-cesop.bmf.gv.at/psp/api/prod`

POST /payment-data

Transmission of payment data according to the CESOP Payment Data XML Schema Definition version 4.02 with `<MessageType>PMT</MessageType>`. A link to the information about the XML schema can be found at web site of the European Commission.

The maximum size of the **uncompressed** XML data (test and production transmission) is 1 gigabyte (1 073 741 824 bytes) per request. This includes all spaces, line breaks and other characters that are not relevant for the XML format per se. The XML data must be transmitted **gzip-compressed** as part `file` of a multipart request. In general, the compression ratio is approximately 10:1.

Implementations of gzip compression are available in all commonly used programming languages. It is **not to be confused with a ZIP archive**.

Multipart requests are defined in RFC 7578 and are also implemented in various networking libraries of common programming languages.

Request Body

`Content-Type: multipart/form-data`

gzip-compressed XML according to the CESOP Payment Data XML Schema Definition version 4.02 with `<MessageType>PMT</MessageType>` as part `file` of a multipart request.

Response

`Content-Type: application/json`

Object containing metadata about the transmitted payment record.

Error Codes

Status Code	Description
400 - Duplicate MessageRefId	A message with the same MessageRefId already exists

Example

```
$ curl -H 'X-CESOP-API-KEY: <apikey>' -F 'file=@daten.xml.gz' https://fon-
cesop.bmf.gv.at/psp/api/test/payment-data'
```

```
  Response Status: 200 OK
  Response Body: { "messageRefId": "3a64a2f7-ceef-4f4b-91d3-0384aeaf85fc" }
```

GET /payment-data

Returns a list of metadata records of transmitted payment messages.

Request Parameter

Parameter	Optional	Default Value	Description
page	yes	0	Page (starts with 0).
pageSize	yes	25	Number o frecords per page. Maximum 500.
Sort	yes	receivedAt, asc	Sort criterion in format `Sort=<field name>, <order>`
MessageType	yes	null	Message type (PMT, VLD).
MessageTypeIndic_Type	yes	null	Value of the element "MessageTypeIndic" of the validation or payment message (CESOP100, CESOP101, CESOP102)

Parameter	Optional	Default Value	Description
Status	yes	null	Message status (0=received, 1=transmitted, 2=validated)
ValidationResult	yes	null	Validation result (VALIDATED, PARTIALLY_REJECTED, FULLY_REJECTED)
ReportingPeriod	yes	null	Fiscal year and quarter of the transmitted payment messages. Format: "Q1.2024", "Q2.2024"
From	yes	null	From date of receipt
To	yes	null	Until date of receipt

Sortable Fields

- messageRefId
- corrMessageRefId
- reportingPeriod
- messageType
- messageTypeIndic_Type
- status
- validationResult

Order

- asc: ascending
- desc: descending

Response

`Content-Type: application/json`

A JSON object is returned in response. The object contains various meta information about the search, including the total number of pages and results found. The results consist of the stored metadata of the payment and validation messages and can be read from the `$.content JSON` path.

Beispiel

```
$ curl -H 'X-CESOP-API-KEY: <apikey>' https://fon-
cesop.bmf.gv.at/psp/api/test/payment-data?MessageType=VLD'
```

```
Response Status: 200 OK
Response Body: {
  "content": [
      {
          "messageRefId": "ef36af33-dbf9-4487-83ec-e4422f40b534",
          "corrMessageRefId": "00000000-0000-4000-8000-000000000000",
          "reportingPeriod": "Q1.2024",
          "messageType": "VLD",
          "messageTypeIndic_Type": "CESOP100",
          "status": 3,
          "validationResult": "FULLY_REJECTED"
      },
      {
          "messageRefId": "4189aa08-8c5b-4bfc-a9e5-63da684a6ccd",
          "corrMessageRefId": "00000000-0000-4000-8000-000000000000",
          "reportingPeriod": "Q1.2024",
          "messageType": "VLD",
          "messageTypeIndic_Type": "CESOP100",
          "status": 3,
          "validationResult": "FULLY_REJECTED"
      }
  ],
  "pageable": {
      "sort": {
          "empty": false,
          "sorted": true,
          "unsorted": false
      },
      "offset": 0,
      "pageNumber": 0,
      "pageSize": 25,
      "paged": true,
      "unpaged": false
  },
  "totalPages": 1,
  "totalElements": 2,
  "last": true,
  "size": 25,
  "number": 0,
  "sort": {
      "empty": false,
      "sorted": true,
      "unsorted": false
  },
  "numberOfElements": 2,
  "first": true,
  "empty": false
}
```

Status Code	Description
400 - From older than 5 years	The value of 'From' is older than 5 years
400 - From cannot be before activation date	The value of 'From' cannot be earlier than the valid start date
400 - From cannot be before To	The value of 'From' must later than after 'To'
400 - Quarter wrong format	The value of 'Quarter' must be in format Qx.YYYY (e.g. 'Q4.2024')
400 - Status wrong format	The value of 'Status' must be one of [0, 1, 2]
400 - Pagesize is too large	the maximum value for Pagesize is 500
400 - Sort is not in the right format	The sort criterion must be specified in format Sort=<key>,<direction>

GET /payment-data/<messageRefId>/validation-result

Returns an XML document with the validation results for the payment record with the `messageRefId`. Only when the validation process on the part of the CESOP system of the EU is completed, this will be available.

Response

`Content-Type: application/xml`

XML according to CESOP Payment Data XML Schema Definition with `<MessageType>VLD</MessageType>`.

Fehlercodes

Status Code	Description
404 - Not Found	The payment record with the `messageRefId` does not exist, or there is no XML document with the validation results for this payment record yet.

Beispiel

```
$ curl -H 'X-CESOP-API-KEY: <apikey>' https://fon-
cesop.bmf.gv.at/psp/api/test/payment-data/742ac138-e7f0-4465-9fd2-
dd7929e5d745/validation-result'
```

```
  Response Status: 200 OK
```

```
  <?xml version="1.0" encoding="UTF-8" standalone="yes"?>
  <CESOP xmlns:ns2="urn:eu:taxud:commontypes:v1"
xmlns:ns3="urn:ec.europa.eu:taxud:fiscalis:cesop:v1">
    <ns3:MessageSpec>
      <ns3:TransmittingCountry>AT</ns3:TransmittingCountry>
      <ns3:MessageType>VLD</ns3:MessageType>
      <ns3:MessageTypeIndic>CESOP100</ns3:MessageTypeIndic>
      <ns3:MessageRefId>21e13f02-464e-43c4-bf6c-b38672dd5a39</ns3:MessageRefId>
      <ns3:CorrMessageRefId>742ac138-e7f0-4465-9fd2-
dd7929e5d745</ns3:CorrMessageRefId>
      <ns3:ReportingPeriod>
        <ns3:Quarter>1</ns3:Quarter>
        <ns3:Year>2024</ns3:Year>
      </ns3:ReportingPeriod>
      <ns3:Timestamp>2023-07-07T08:12:00.199+02:00</ns3:Timestamp>
    </ns3:MessageSpec>
    <ns3:ValidationResult>
      <ns3:ValidationResult>VALIDATED</ns3:ValidationResult>
    </ns3:ValidationResult>
  </CESOP>
```